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Subchapter 1

General Provisions

10.53.101 EXPLANATION OF THE CONTENT STANDARDS (1) The content standards shall be used by school districts to develop local curriculum and assessment in all the content areas including:

- (a) English language proficiency;
- (b) English language arts and literacy;
- (c) mathematics; and
- (d) arts.

(2) The K-12 content standards describe what students shall know, understand, and be able to do in these content standards. These K-12 standards define end-of-year expectations and a cumulative progression designed to enable students to meet college and career readiness expectations no later than the end of high school. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11; AMD, 2016 MAR p. 1387, Eff. 7/1/17.)

10.53.102 INDIAN EDUCATION (1) Curriculum and instruction of the content standards under this chapter shall incorporate the distinct and unique cultural heritage of Montana American Indians pursuant to Article X, section 1(2) of the Constitution of the state of Montana and 20-1-501 and 20-9-309(2)(c), MCA. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11; AMD, 2016 MAR p. 1387, Eff. 7/1/17.)

10.53.103 DEFINITIONS (1) "Content standard" means what all students should know, understand, and be able to do in each of the content areas in this chapter.

(2) "Mathematical practices" describe processes and proficiencies students use as practitioners of the discipline of mathematics.

(3) The symbol "+" denotes science, technology, engineering, mathematics (STEM) standards that students should learn in order to take advanced courses such as calculus, advanced statistics, or discrete mathematics.

(4) The symbol "*" denotes specific modeling standards appearing throughout the high school mathematics standards.

(5) "Literacy in history/social studies, science and technical subjects" means instruction in reading, writing, speaking, listening, and language use is a shared responsibility by teachers of English language arts and other content areas. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11; AMD, 2016 MAR p. 1389, Eff. 7/1/17.)

10.53.104 STANDARDS REVIEW SCHEDULE (1) Montana's content standards shall be reviewed and revised on a recurring schedule.

(2) A schedule for review of content standards shall be established as a collaborative process with the Office of Public Instruction and the Board of Public Education with input from representatives of accredited schools. The schedule shall ensure that each program area is reviewed and revised at regular intervals.

(3) The standards review process shall use context information, criteria, processes, and procedures identified by the Office of Public Instruction with input from representatives of accredited schools. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

Subchapter 2 reserved

Subchapter 3

English Language Proficiency Content Standards

10.53.301 ENGLISH LANGUAGE PROFICIENCY CONTENT STANDARD 1

(1) To satisfy the requirements of English language proficiency content standard 1, English language learners must communicate for social and instructional purposes within the school setting. (History: 20-2-114, MCA; IMP, 20-2-121, MCA; NEW, 2011 MAR p. 2026, Eff. 9/23/11.)

10.53.302 ENGLISH LANGUAGE PROFICIENCY CONTENT STANDARD 2

(1) To satisfy the requirements of English language proficiency content standard 2, English language learners must communicate information, ideas, and concepts necessary for academic success in the content area of language arts. (History: 20-2-114, MCA; IMP, 20-2-121, MCA; NEW, 2011 MAR p. 2026, Eff. 9/23/11.)

10.53.303 ENGLISH LANGUAGE PROFICIENCY CONTENT STANDARD 3

(1) To satisfy the requirements of English language proficiency content standard 3, English language learners must communicate information, ideas, and concepts necessary for academic success in the content area of mathematics. (History: 20-2-114, MCA; IMP, 20-2-121, MCA; NEW, 2011 MAR p. 2026, Eff. 9/23/11.)

10.53.304 ENGLISH LANGUAGE PROFICIENCY CONTENT STANDARD 4

(1) To satisfy the requirements of English language proficiency content standard 4, English language learners must communicate information, ideas, and concepts necessary for academic success in the content area of science. (History: 20-2-114, MCA; IMP, 20-2-121, MCA; NEW, 2011 MAR p. 2026, Eff. 9/23/11.)

10.53.305 ENGLISH LANGUAGE PROFICIENCY CONTENT STANDARD 5

(1) To satisfy the requirements of English language proficiency content standard 5, English language learners must communicate information, ideas, and concepts necessary for academic success in the content area of social studies. (History: 20-2-114, MCA; IMP, 20-2-121, MCA; NEW, 2011 MAR p. 2026, Eff. 9/23/11.)

10.53.306 ENGLISH LANGUAGE PROFICIENCY PERFORMANCE DESCRIPTORS AT THE ENTERING LEVEL (1) At the entering level of English language proficiency, English language learners will process, understand, produce, or use:

- (a) pictorial or graphic representation of the language of the content areas;
- (b) words, phrases, or chunks of language when presented with one-step commands; directions; WH-, choice, or yes/no questions; or statements with sensory, graphic, or interactive support; and
- (c) oral language with phonological, syntactic, or semantic errors that often impede meaning when presented with basic oral commands, direct questions, or simple statements with sensory, graphic, or interactive support. (History: 20-2-114, MCA; IMP, 20-2-121, MCA; NEW, 2011 MAR p. 2026, Eff. 9/23/11.)

10.53.307 ENGLISH LANGUAGE PROFICIENCY PERFORMANCE DESCRIPTORS AT THE EMERGING LEVEL (1) At the emerging level of English language proficiency, English language learners will process, understand, produce, or use:

- (a) general language related to the content areas;
- (b) phrases or short sentences; and
- (c) oral or written language with phonological, syntactic, or semantic errors that often impede the meaning of the communication when presented with one to multiple-step commands, directions, questions, or a series of statements with sensory, graphic, or interactive support. (History: 20-2-114, MCA; IMP, 20-2-121, MCA; NEW, 2011 MAR p. 2026, Eff. 9/23/11.)

10.53.308 ENGLISH LANGUAGE PROFICIENCY PERFORMANCE DESCRIPTORS AT THE DEVELOPING LEVEL (1) At the developing level of English language proficiency, English language learners will process, understand, produce, or use:

- (a) general and some specific language of the content areas;
- (b) expanded sentences in oral interaction or written paragraphs; and
- (c) oral or written language with phonological, syntactic, or semantic errors that may impede the communication, but retain much of its meaning, when presented with oral or written, narrative or expository descriptions with sensory, graphic, or interactive support. (History: 20-2-114, MCA; IMP, 20-2-121, MCA; NEW, 2011 MAR p. 2026, Eff. 9/23/11.)

10.53.309 ENGLISH LANGUAGE PROFICIENCY PERFORMANCE DESCRIPTORS AT THE EXPANDING LEVEL (1) At the expanding level of English language proficiency, English language learners will process, understand, produce or use:

- (a) specific and some technical language of the content areas;
- (b) a variety of sentence lengths of varying linguistic complexity in oral discourse or multiple, related sentences or paragraphs; and
- (c) oral or written language with minimal phonological, syntactic, or semantic errors that do not impede the overall meaning of the communication when presented with oral or written connected discourse with sensory, graphic, or interactive support. (History: 20-2-114, MCA; IMP, 20-2-121, MCA; NEW, 2011 MAR p. 2026, Eff. 9/23/11.)

10.53.310 ENGLISH LANGUAGE PROFICIENCY PERFORMANCE DESCRIPTORS AT THE BRIDGING LEVEL (1) At the bridging level of English language proficiency, English language learners will process, understand, produce, or use:

- (a) specialized or technical language of the content areas;
- (b) a variety of sentence lengths of varying linguistic complexity in extended oral or written discourse, including stories, essays, or reports; and
- (c) oral or written language approaching comparability to that of proficient English peers when presented with grade level material. (History: 20-2-114, MCA; IMP, 20-2-121, MCA; NEW, 2011 MAR p. 2026, Eff. 9/23/11.)

10.53.311 ENGLISH LANGUAGE PROFICIENCY PERFORMANCE DESCRIPTORS AT THE REACHING LEVEL (1) At the reaching level of English language proficiency, English language learners will process, understand, produce, or use:

- (a) specialized or technical language reflective of the content areas at grade level;
- (b) a variety of sentence lengths of varying linguistic complexity in extended oral or written discourse as required by the specified grade level; and
- (c) oral or written communication in English comparable to proficient English peers. (History: 20-2-114, MCA; IMP, 20-2-121, MCA; NEW, 2011 MAR p. 2026, Eff. 9/23/11.)

Subchapter 4

English Language Arts and Literacy Content Standards

10.53.401 COLLEGE AND CAREER READINESS ANCHOR STANDARDS FOR READING

(1) Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

(2) Determine central ideas or themes of a text and analyze their development and summarize the key supporting details and ideas.

(3) Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

(4) Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings and analyze how specific word choices shape meaning or tone.

(5) Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.

(6) Assess how point of view or purpose shapes the content and style of a text.

(7) Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

(8) Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

(9) Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

(10) Read and comprehend complex literary and informational texts independently and proficiently. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

10.53.402 COLLEGE AND CAREER READINESS ANCHOR STANDARDS FOR WRITING (1) Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

(2) Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

(3) Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

(4) Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

(5) Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

(6) Use technology, including the internet, to produce and publish writing and to interact and collaborate with others.

(7) Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

(8) Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

(9) Draw evidence from literary or informational texts to support analysis, reflection, and research.

(10) Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

10.53.403 COLLEGE AND CAREER READINESS ANCHOR STANDARDS FOR SPEAKING AND LISTENING (1) Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

(2) Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

(3) Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

(4) Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

(5) Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

(6) Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

10.53.404 COLLEGE AND CAREER READINESS ANCHOR STANDARDS FOR LANGUAGE (1) Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

(2) Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

(3) Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

(4) Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.

(5) Demonstrate understanding of figurative language, word relationships and nuances in word meanings.

(6) Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

10.53.405 READING STANDARDS FOR LITERATURE (1) Reading standards for literature for a student at the kindergarten level are:

(a) with prompting and support, ask and answer questions about key details in a text;

(b) with prompting and support, retell familiar stories, including key details; include stories by and about American Indians;

(c) with prompting and support, identify characters, settings, and major events in a story;

(d) ask and answer questions about unknown words in a text;

(e) recognize common types of texts (e.g., storybooks, poems);

(f) with prompting and support, name the author and illustrator of a story and define the role of each in telling the story;

(g) with prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts);

(h) with prompting and support, compare and contrast the adventures and experiences of characters in familiar stories, including American Indian stories; and

(i) actively engage in group reading activities with purpose and understanding.

- (2) Reading standards for literature for a student at the Grade 1 level are:
- (a) ask and answer questions about key details in a text;
 - (b) retell stories, including stories by and about American Indians, including key details and demonstrate understanding of their central message or lesson;
 - (c) describe characters, settings, and major events in a story, using key details;
 - (d) identify words and phrases in stories or poems that suggest feelings or appeal to the senses;
 - (e) explain major differences between books that tell stories and books that give information, including those of American Indians, drawing on a wide reading of a range of text types;
 - (f) identify who is telling the story at various points in a text;
 - (g) use illustrations and details in a story to describe its characters, setting, or events;
 - (h) compare and contrast the adventures and experiences of characters in stories, including American Indian stories; and
 - (i) with prompting and support, read prose and poetry of appropriate complexity for grade 1.
- (3) Reading standards for literature for a student at the Grade 2 level are:
- (a) ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text;
 - (b) recount stories, including fables and folktales from diverse cultures, including American Indian stories, and determine their central message, lesson, or moral;
 - (c) describe how characters in a story respond to major events and challenges;
 - (d) describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song;
 - (e) describe the overall structure of a story, including American Indian stories, describing how the beginning introduces the story and the ending concludes the action;
 - (f) acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud;
 - (g) use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot;
 - (h) compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures, including American Indian authors or cultures; and
 - (i) by the end of the year, read and comprehend literature, including stories and poetry, in the Grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

- (4) Reading standards for literature for a student at the Grade 3 level are:
- (a) ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers;
 - (b) recount stories, including fables, folktales, and myths from diverse cultures, including those by and about American Indians; determine the central message, lesson, or moral; and explain how it is conveyed through key details in the text;
 - (c) describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events;
 - (d) determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language;
 - (e) refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza and describe how each successive part builds on earlier sections;
 - (f) distinguish their own point of view from that of the narrator or those of the characters; include works by and about American Indians;
 - (g) explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting);
 - (h) compare and contrast the themes, settings, and plots of stories written by the same author, including American Indian authors, about the same or similar characters (e.g., in books from a series); and
 - (i) by the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the Grades 2–3 text complexity band independently and proficiently.
- (5) Reading standards for literature for a student at the Grade 4 level are:
- (a) refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text;
 - (b) determine a theme of a story, drama, or poem from details in the text; summarize the text; and include texts by and about American Indians;
 - (c) describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions);
 - (d) determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean);
 - (e) explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text;

(f) compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations; include works by and about American Indians;

(g) make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text;

(h) compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures, including those by and about American Indians; and

(i) by the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the Grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

(6) Reading standards for literature for a student at the Grade 5 level are:

(a) quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text;

(b) determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text; and include texts by and about American Indians;

(c) compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact);

(d) determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes;

(e) explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem;

(f) describe how a narrator's or speaker's point of view influences how events are described; include perspectives of American Indians;

(g) analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem);

(h) compare and contrast stories in the same genre (e.g., mysteries and adventure stories, including traditional and contemporary stories by and about American Indians) on their approaches to similar themes and topics; and

(i) by the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the Grades 4-5 text complexity band independently and proficiently.

(7) Reading standards for literature for a student at the Grade 6 level are:

(a) cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text;

(b) determine a theme or central idea of a text and how it is conveyed through particular details and provide a summary of the text distinct from personal opinions or judgments;

(c) describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution;

(d) determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings and analyze the impact of a specific word choice on meaning and tone;

(e) analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot;

(f) explain how an author develops the point of view of the narrator or speaker in a text;

(g) compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they "see" and "hear" when reading the text to what they perceive when they listen or watch;

(h) compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories; traditional and contemporary stories by and about American Indians) in terms of their approaches to similar themes and topics; and

(i) by the end of the year, read and comprehend literature, including stories, dramas, and poems, in the Grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

(8) Reading standards for literature for a student at the Grade 7 level are:

(a) cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text;

(b) determine a theme or central idea of a text; analyze its development over the course of the text; and provide an objective summary of the text;

(c) analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot);

(d) determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings and analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama;

(e) analyze how a drama's or poem's form or structure (e.g., soliloquy, sonnet) contributes to its meaning;

(f) analyze how an author develops and contrasts the points of view of different characters or narrators in a text;

(g) compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film);

(h) compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history; include texts that contain portrayals and/or accounts by and about American Indians; and

(i) by the end of the year, read and comprehend literature, including stories, dramas, and poems, in the Grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

(9) Reading standards for literature for a student at the Grade 8 level are:

(a) cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text;

(b) determine a theme or central idea of a text; analyze its development over the course of the text, including its relationship to the characters, setting, and plot; and provide an objective summary of the text;

(c) analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision;

(d) determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings and analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts;

(e) compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style;

(f) analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor;

(g) analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors;

(h) analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new and include texts by and about American Indians; and

(i) by the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of Grades 6-8 text complexity band independently and proficiently.

(10) Reading standards for literature for a student at the Grade 9-10 level are:

(a) cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text and include works by and about American Indians;

(b) determine a theme or central idea of a text, including those by and about American Indians; analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; and provide an objective summary of the text;

(c) analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, including texts by and about American Indians; interact with other characters; and advance the plot or develop the theme;

(d) determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings and analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone);

(e) analyze how an author's choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise;

(f) analyze a particular point of view or cultural experience reflected in a work of literature from outside the United States, drawing on a wide reading of world literature;

(g) analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment (e.g., Auden's "Musée des Beaux Arts," Breughel's Landscape with the Fall of Icarus Painting, and American Progress, by John Gast (circa 1872) with "Birthright," a poem, by M. L. Smoker in Another Attempt at Rescue);

(h) analyze how an author draws on and transforms source material in a specific work (e.g., how Shakespeare treats a theme or topic from Ovid or the Bible, how a later author draws on a play by Shakespeare, or how American Indian stories and oral histories appear in contemporary works, such as James Welch's Fools Crow, where the author retells the Pikuni traditional story, "Star Boy"); and

(i) by the end of Grade 9, read and comprehend literature, including stories, dramas, and poems, in the Grades 9-10 text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of Grade 10, read and comprehend literature, including stories, dramas, and poems, at the high end of the Grades 9-10 text complexity band independently and proficiently.

(11) Reading standards for literature for a student at the Grade 11-12 level are:

(a) cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain;

(b) determine two or more themes or central ideas of a text, including those by and about American Indians; analyze their development over the course of the text, including how they interact and build on one another to produce a complex account; and provide an objective summary of the text;

(c) analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama or oral or written history (e.g., where a story is set, how the action is ordered, how the characters are introduced and developed);

(d) determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings and analyze the impact of specific word choices on meaning and tone, including words with multiple meanings or language that is particularly fresh, engaging, or beautiful (include Shakespeare, works by American Indian authors, as well as other authors);

(e) analyze how an author's choices concerning how to structure specific parts of a text (e.g., the choice of where to begin or end a story, the choice to provide a comedic or tragic resolution) contribute to its overall structure and meaning as well as its aesthetic impact;

(f) analyze a case in which grasping point of view requires distinguishing what is directly stated in a text from what is really meant (e.g., satire, sarcasm, irony, or understatement) and include works by and about American Indians;

(g) analyze multiple interpretations of a story, drama, poem (e.g., recorded or live production of a play or recorded novel or poetry), or traditional American Indian oral histories, evaluating how each version interprets the source text (include at least one play by Shakespeare and one play by an American dramatist);

(h) demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, including American Indian works, including how two or more texts from the same period treat similar themes or topics; and

(i) by the end of Grade 11, read and comprehend literature, including stories, dramas, and poems, in the Grades 11-college and career ready (CCR) text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of Grade 12, read and comprehend literature, including stories, dramas, and poems, at the high end of the Grades 11-CCR text complexity band independently and proficiently. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

10.53.406 READING STANDARDS FOR INFORMATIONAL TEXT

(1) Reading standards for informational text for a student at the kindergarten level are:

- (a) with prompting and support, ask and answer questions about key details in a text;
- (b) with prompting and support, identify the main topic and retell key details of a text;
- (c) with prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text and include texts by and about American Indians;
- (d) with prompting and support, ask and answer questions about unknown words in a text and recognize words and phrases with cultural significance to American Indians;
- (e) identify the front cover, back cover, and title page of a book;
- (f) name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text;
- (g) with prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts);
- (h) with prompting and support, identify the reasons an author gives to support points in a text;
- (i) with prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures); and
- (j) actively engage in group reading activities with purpose and understanding.

(2) Reading standards for informational text for a student at the Grade 1 level are:

- (a) ask and answer questions about key details in a text;
- (b) identify the main topic and retell key details of a text;
- (c) describe the connection between two individuals, events, ideas, or pieces of information in a text and include texts by and about American Indians;
- (d) ask and answer questions to help determine or clarify the meaning of words and phrases in a text and recognize words and phrases with cultural significance to American Indians;
- (e) know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text;
- (f) distinguish between information provided by pictures or other illustrations and information provided by the words in a text;
- (g) use the illustrations and details in a text to describe its key ideas;
- (h) identify the reasons an author gives to support points in a text;
- (i) identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures); and
- (j) with prompting and support, read informational texts appropriately complex for Grade 1.

(3) Reading standards for informational text for a student at the Grade 2 level are:

(a) ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text;

(b) identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text;

(c) describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text and include texts by and about American Indians;

(d) determine the meaning of words and phrases in a text relevant to a Grade 2 topic or subject area and recognize words and phrases with cultural significance to American Indians;

(e) know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently;

(f) identify the main purpose of a text, including what the author wants to answer, explain, or describe;

(g) explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text;

(h) describe how reasons support specific points the author makes in a text;

(i) compare and contrast the most important points presented by two texts on the same topic; and

(j) by the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the Grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

(4) Reading standards for informational text for a student at the Grade 3 level are:

(a) ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers;

(b) determine the main idea of a text; recount the key details, and explain how they support the main idea;

(c) describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect and include texts by and about American Indians;

(d) determine the meaning of general academic and domain-specific words and phrases in a text relevant to a Grade 3 topic or subject area;

(e) use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently;

(f) distinguish their own point of view from that of the author of a text;

(g) use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur);

(h) describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence);

(i) compare and contrast the most important points and key details presented in two texts on the same topic; and

(j) by the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the Grades 2-3 text complexity band independently and proficiently.

(5) Reading standards for informational text for a student at the Grade 4 level are:

(a) refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text;

(b) determine the main idea of a text; explain how it is supported by key details; and summarize the text;

(c) explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text and include texts by and about American Indians;

(d) determine the meaning of general academic and domain-specific words or phrases in a text relevant to a Grade 4 topic or subject area;

(e) describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text;

(f) compare and contrast a firsthand and secondhand account of the same event or topic, including those of American Indians and describe the differences in focus and the information provided;

(g) interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears;

(h) explain how an author uses reasons and evidence to support particular points in a text;

(i) integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably; and

(j) by the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the Grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

(6) Reading standards for informational text for a student at the Grade 5 level are:

(a) quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text;

(b) determine two or more main ideas of a text, explain how they are supported by key details, and summarize the text;

(c) explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text and include texts by and about American Indians;

- (d) determine the meaning of general academic and domain-specific words and phrases in a text relevant to a Grade 5 topic or subject area;
 - (e) compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts;
 - (f) analyze multiple accounts of the same event or topic, including those of historical and contemporary American Indian events and topics, noting important similarities and differences in the point of view they represent;
 - (g) draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently;
 - (h) explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s);
 - (i) integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably; and
 - (j) by the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the Grades 4-5 text complexity band independently and proficiently.
- (7) Reading standards for informational text for a student at the Grade 6 level are:
- (a) cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text;
 - (b) determine a central idea of a text and how it is conveyed through particular details and provide a summary of the text distinct from personal opinions or judgments;
 - (c) analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes);
 - (d) determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings;
 - (e) analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas;
 - (f) determine an author's point of view or purpose in a text and explain how it is conveyed in the text and include texts by and about American Indians;
 - (g) integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue;
 - (h) trace and evaluate the argument and specific claims in a text, including texts by and about American Indians, distinguishing claims that are supported by reasons and evidence from claims that are not;
 - (i) compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person) and include texts by and about American Indians; and
 - (j) by the end of the year, read and comprehend literary nonfiction in the Grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

(8) Reading standards for informational text for a student at the Grade 7 level are:

(a) cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text;

(b) determine two or more central ideas in a text; analyze their development over the course of the text; and provide an objective summary of the text;

(c) analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events);

(d) determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings and analyze the impact of a specific word choice on meaning and tone;

(e) analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas;

(f) determine an author's point of view or purpose in a text, including those by and about American Indians, and analyze how the author distinguishes his or her position from that of others;

(g) compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words);

(h) trace and evaluate the argument and specific claims in a text, including texts by and about American Indians, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims;

(i) analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts and include texts by and about American Indians; and

(j) by the end of the year, read and comprehend literary nonfiction in the Grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

(9) Reading standards for informational text for a student at the Grade 8 level are:

(a) cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text;

(b) determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas and provide an objective summary of the text;

(c) analyze how a text makes connections among and distinctions between individuals, ideas, cultures, or events (e.g., through comparisons, analogies, or categories);

(d) determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings and analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts;

(e) analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept;

(f) determine an author's point of view or purpose in a text, including texts by and about American Indians, and analyze how the author acknowledges and responds to conflicting evidence or viewpoints;

(g) evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea;

(h) delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced; and include texts by and about American Indians;

(i) analyze a case in which two or more texts provide conflicting information on the same topic; identify where the texts disagree on matters of fact or interpretation; and include texts by and about American Indians; and

(j) by the end of the year, read and comprehend literary nonfiction at the high end of the Grades 6-8 text complexity band independently and proficiently.

(10) Reading standards for informational text for a student at the Grade 9-10 level are:

(a) cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text;

(b) determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details and provide an objective summary of the text;

(c) analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them;

(d) determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings and analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper, or how American Indian treaty language differs from everyday speech);

(e) analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter);

(f) determine an author's point of view or purpose in a text, including texts by and about Montana American Indians, and analyze how an author uses rhetoric to advance that point of view or purpose;

(g) analyze various accounts of a subject told in different mediums, (e.g., a person's life story in both print and multimedia, paying specific attention to cultural nuances) determining which details are emphasized in each account;

(h) delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient and identify false statements and fallacious reasoning;

(i) analyze seminal U.S. documents of historical and literary significance (e.g., Washington's Farewell Address, the Gettysburg Address, Roosevelt's Four Freedoms speech, King's "Letter from Birmingham Jail," Onondaga Chief Canassatego's address "On Colonizing Education"), including how they address related themes and concepts; and

(j) by the end of Grade 9, read and comprehend literary nonfiction in the Grades 9-10 text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of Grade 10, read and comprehend literary nonfiction at the high end of the Grades 9-10 text complexity band independently and proficiently.

(11) Reading standards for informational text for a student at the Grade 11-12 level are:

(a) cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain;

(b) determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis and provide an objective summary of the text;

(c) analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, cultures, or events interact and develop over the course of the text;

(d) determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings and analyze how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines "faction" in Federalist No. 10; how the use of "sovereignty" in official documents impacts legal and political relationship);

(e) analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging;

(f) determine an author's point of view or purpose in a text, including texts by and about Montana American Indians, in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness, or beauty of the text;

(g) integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem;

(h) delineate and evaluate the reasoning in seminal U.S. texts and those that dealt with American Indians, including the application of constitutional principles and use of legal reasoning (e.g., in U.S. Supreme Court majority opinions and dissents) and the premises, purposes, and arguments in works of public advocacy (e.g., The Federalist, presidential addresses, American Indian policies);

(i) analyze seventeenth-, eighteenth-, and nineteenth-century foundational U.S. documents of historical and literary significance (including The Declaration of Independence, the Preamble to the Constitution, the Bill of Rights, Lincoln's Second Inaugural Address, American Indian treaties, and Iroquois Confederacy) for their themes, purposes, and rhetorical features; and

(j) by the end of Grade 11, read and comprehend literary nonfiction in the Grades 11-CCR text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of Grade 12, read and comprehend literary nonfiction at the high end of the Grades 11-CCR text complexity band independently and proficiently. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

10.53.407 READING STANDARDS: FOUNDATIONAL SKILLS

(1) Reading standards foundational skills for a student at the kindergarten level are:

(a) demonstrate understanding of the organization and basic features of print;

(i) follow words from left to right, top to bottom, and page by page;

(ii) recognize that spoken words are represented in written language by specific sequences of letters;

(iii) understand that words are separated by spaces in print; and

(iv) recognize and name all upper- and lowercase letters of the alphabet;

(b) demonstrate understanding of spoken words, syllables, and sounds (phonemes);

(i) recognize and produce rhyming words;

(ii) count, pronounce, blend, and segment syllables in spoken words;

(iii) blend and segment onsets and rimes of single-syllable spoken words;

(iv) isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words (this does not include CVCs ending with /l/, /r/, or /x/); and

(v) add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words;

- (c) know and apply grade-level phonics and word analysis skills in decoding words;
 - (i) demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary or many of the most frequent sounds for each consonant;
 - (ii) associate the long and short sounds with common spellings (graphemes) for the five major vowels;
 - (iii) read common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does); and
 - (iv) distinguish between similarly spelled words by identifying the sounds of the letters that differ; and
 - (d) read emergent-reader texts with purpose and understanding.
- (2) Reading standards: foundational skills for a student at the Grade 1 level are:
- (a) demonstrate understanding of the organization and basic features of print;
 - (i) recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation);
 - (b) demonstrate understanding of spoken words, syllables, and sounds (phonemes);
 - (i) distinguish long from short vowel sounds in spoken single-syllable words;
 - (ii) orally produce single-syllable words by blending sounds (phonemes), including consonant blends;
 - (iii) isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words; and
 - (iv) segment spoken single-syllable words into their complete sequence of individual sounds (phonemes);
 - (c) know and apply grade-level phonics and word analysis skills in decoding words;
 - (i) know the spelling-sound correspondences for common consonant digraphs;
 - (ii) decode regularly spelled one-syllable words;
 - (iii) know final -e and common vowel team conventions for representing long vowel sounds;
 - (iv) use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word;
 - (v) decode two-syllable words following basic patterns by breaking the words into syllables;
 - (vi) read words with inflectional endings; and
 - (vii) recognize and read grade-appropriate irregularly spelled words;
 - (d) read with sufficient accuracy and fluency to support comprehension;
 - (i) read on-level text with purpose and understanding;
 - (ii) read on-level text orally with accuracy, appropriate rate, and expression on successive readings; and
 - (iii) use context to confirm or self-correct word recognition and understanding, rereading as necessary.

(3) Reading standards: foundational skills for a student at the Grade 2 level are:

(a) know and apply grade-level phonics and word analysis skills in decoding words;

(i) distinguish long and short vowels when reading regularly spelled one-syllable words;

(ii) know spelling-sound correspondences for additional common vowel teams;

(iii) decode regularly spelled two-syllable words with long vowels;

(iv) decode words with common prefixes and suffixes;

(v) identify words with inconsistent but common spelling-sound correspondences; and

(vi) recognize and read grade-appropriate irregularly spelled words;

(b) read with sufficient accuracy and fluency to support comprehension;

(i) read on-level text with purpose and understanding;

(ii) read on-level text orally with accuracy, appropriate rate, and expression on successive readings; and

(iii) use context to confirm or self-correct word recognition and understanding, rereading as necessary.

(4) Reading standards: foundational skills for a student at the Grade 3 level are:

(a) know and apply grade-level phonics and word analysis skills in decoding words;

(i) identify and know the meaning of the most common prefixes and derivational suffixes;

(ii) decode words with common Latin suffixes;

(iii) decode multisyllable words; and

(iv) read grade-appropriate irregularly spelled words;

(b) read with sufficient accuracy and fluency to support comprehension;

(i) read on-level text with purpose and understanding;

(ii) read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings; and

(iii) use context to confirm or self-correct word recognition and understanding, rereading as necessary.

(5) Reading standards: foundational skills for a student at the Grade 4 level are:

(a) know and apply grade-level phonics and word analysis skills in decoding words;

(i) use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context;

(b) read with sufficient accuracy and fluency to support comprehension;

(i) read on-level text with purpose and understanding;

(ii) read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings; and

(iii) use context to confirm or self-correct word recognition and understanding, rereading as necessary.

(6) Reading standards: foundational skills for students at the Grade 5 level are:

- (a) know and apply grade-level phonics and word analysis skills in decoding words;
 - (i) use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context;
 - (b) read with sufficient accuracy and fluency to support comprehension;
 - (i) read on-level text with purpose and understanding;
 - (ii) read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings; and
 - (iii) use context to confirm or self-correct word recognition and understanding, rereading as necessary. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

10.53.408 WRITING STANDARDS (1) Writing standards for a student at the kindergarten level are:

- (a) use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is . . .);
- (b) use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic;
- (c) use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events; tell about the events in the order in which they occurred; and provide a reaction to what happened;
- (d) with guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed;
- (e) with guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers;
- (f) participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them and include sources by and about American Indians); and
- (g) with guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question and include sources by and about American Indians.

(2) Writing standards for a student at the Grade 1 level are:

- (a) write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure;
- (b) write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure;
- (c) write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure;

(d) with guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed;

(e) with guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers;

(f) participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions and include sources by and about American Indians); and

(g) with guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question, including sources by and about American Indians.

(3) Writing standards for a student at the Grade 2 level are:

(a) write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section;

(b) write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section;

(c) write narratives in which they recount a well-elaborated event or short sequence of events; include details to describe actions, thoughts, and feelings; use temporal words to signal event order; and provide a sense of closure;

(d) with guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing;

(e) with guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers;

(f) participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations) and include sources by and about American Indians; and

(g) recall information from experiences or gather information from provided sources to answer a question, including sources by and about American Indians.

(4) Writing standards for a student at the Grade 3 level are:

(a) write opinion pieces on topics or texts supporting a point of view with reasons;

(i) introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons;

(ii) provide reasons that support the opinion;

(iii) use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons; and

(iv) provide a concluding statement or section;

- (b) write informative/explanatory texts to examine a topic and convey ideas and information clearly;
 - (i) introduce a topic and group related information together and include illustrations when useful to aid comprehension;
 - (ii) develop the topic with facts, definitions, and details;
 - (iii) use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information; and
 - (iv) provide a concluding statement or section;
 - (c) write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences;
 - (i) establish a situation and introduce a narrator and/or characters and organize an event sequence that unfolds naturally;
 - (ii) use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations;
 - (iii) use temporal words and phrases to signal event order; and
 - (iv) provide a sense of closure;
 - (d) with guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose (Grade-specific expectations for writing types are defined in standards (a) through (c) above.);
 - (e) with guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing (Editing for conventions should demonstrate command of language standards (a) through (c) up to and including Grade 3.);
 - (f) with guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others;
 - (g) conduct short research projects that build knowledge about a topic and include sources by and about American Indians;
 - (h) recall information from experiences or gather information from print and digital sources; take brief notes on sources, sort evidence into provided categories; and include sources by and about American Indians; and
 - (i) write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
- (5) Writing standards for a student at the Grade 4 level are:
- (a) write opinion pieces on topics or texts supporting a point of view with reasons and information;
 - (i) introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose;
 - (ii) provide reasons that are supported by facts and details;
 - (iii) link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition); and
 - (iv) provide a concluding statement or section related to the opinion presented;

- (b) write informative/explanatory texts to examine a topic and convey ideas and information clearly;
 - (i) introduce a topic clearly and group related information in paragraphs and sections and include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension;
 - (ii) develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic;
 - (iii) link ideas within categories of information using words and phrases (e.g., another, for example, also, because);
 - (iv) use precise language and domain-specific vocabulary to inform about or explain the topic; and
 - (v) provide a concluding statement or section related to the information or explanation presented;
- (c) write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences;
 - (i) orient the reader by establishing a situation and introducing a narrator and/or characters and organize an event sequence that unfolds naturally;
 - (ii) use dialogue and description to develop experiences and events or show the responses of characters to situations;
 - (iii) use a variety of transitional words and phrases to manage the sequence of events;
 - (iv) use concrete words and phrases and sensory details to convey experiences and events precisely; and
 - (v) provide a conclusion that follows from the narrated experiences or events;
- (d) produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience (Grade-specific expectations for writing types are defined in standards (a) through (c) above.);
- (e) with guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing (Editing for conventions should demonstrate command of language standards (a) through (c) up to and including Grade 4.);
- (f) with some guidance and support from adults, use technology, including the internet, to produce and publish writing as well as to interact and collaborate with others and demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting;
- (g) conduct short research projects that build knowledge through investigation of different aspects of a topic and include topics and/or sources by and about American Indians;
- (h) recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information; and provide a list of sources;
- (i) draw evidence from literary or informational texts to support analysis, reflection, and research;

- (i) apply Grade 4 reading standards to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions]."); and
 - (ii) apply Grade 4 reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text"); and
 - (j) write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
- (6) Writing standards for a student at the Grade 5 level are:
- (a) write opinion pieces on topics or texts supporting a point of view with reasons and information;
 - (i) introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose;
 - (ii) provide logically ordered reasons that are supported by facts and details;
 - (iii) link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically); and
 - (iv) provide a concluding statement or section related to the opinion presented;
 - (b) write informative/explanatory texts to examine a topic and convey ideas and information clearly;
 - (i) introduce a topic clearly, provide a general observation and focus, and group related information logically and include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension;
 - (ii) develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic;
 - (iii) link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially);
 - (iv) use precise language and domain-specific vocabulary to inform about or explain the topic; and
 - (v) provide a concluding statement or section related to the information or explanation presented;
 - (c) write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences;
 - (i) orient the reader by establishing a situation and introducing a narrator and/or characters and organize an event sequence that unfolds naturally;
 - (ii) use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations;
 - (iii) use a variety of transitional words, phrases, and clauses to manage the sequence of events;
 - (iv) use concrete words and phrases and sensory details to convey experiences and events precisely; and
 - (v) provide a conclusion that follows from the narrated experiences or events;

(d) produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience (Grade-specific expectations for writing types are defined in standards (a) through (c) above.);

(e) with guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach (Editing for conventions should demonstrate command of language standards (a) through (c) above up to and including Grade 5.);

(f) with some guidance and support from adults, use technology, including the internet, to produce and publish writing as well as to interact and collaborate with others and demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting;

(g) conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic and include sources and/or topics by and about American Indians;

(h) recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work; and provide a list of sources;

(i) draw evidence from literary or informational texts to support analysis, reflection, and research;

(i) apply Grade 5 reading standards to literature (e.g., "and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]"); and

(ii) apply Grade 5 reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]"); and

(j) write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

(7) Writing standards for a student at the Grade 6 level are:

(a) write arguments to support claims with clear reasons and relevant evidence;

(i) introduce claim(s) and organize the reasons and evidence clearly;

(ii) support claim(s) with clear reasons and relevant evidence, using credible sources, including oral sources, and demonstrating an understanding of the topic or text;

(iii) use words, phrases, and clauses to clarify the relationships among claim(s) and reasons;

(iv) establish and maintain a formal style; and

(v) provide a concluding statement or section that follows from the argument presented;

- (b) write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content;
- (i) introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect and include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension;
 - (ii) develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples;
 - (iii) use appropriate transitions to clarify the relationships among ideas and concepts;
 - (iv) use precise language and domain-specific vocabulary to inform about or explain the topic;
 - (v) establish and maintain a formal style; and
 - (vi) provide a concluding statement or section that follows from the information or explanation presented;
- (c) write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences;
- (i) engage and orient the reader by establishing a context and introducing a narrator and/or characters and organize an event sequence that unfolds naturally and logically;
 - (ii) use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters;
 - (iii) use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another;
 - (iv) use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events; and
 - (v) provide a conclusion that follows from the narrated experiences or events;
- (d) produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (Grade-specific expectations for writing types are defined in standards (a) through (c) above.);
- (e) with some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach (Editing for conventions should demonstrate command of language standards (a) through (c) up to and including Grade 6.);
- (f) use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others and demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting;
- (g) conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate and include sources and/or topics by and about American Indians;

(h) gather relevant information from multiple oral, print, and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources;

(i) draw evidence from literary or informational texts to support analysis, reflection, and research;

(i) apply Grade 6 reading standards to literature (e.g., "Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics"); and

(ii) apply Grade 6 reading standards to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not"); and

(j) write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

(8) Writing standards for a student at the Grade 7 level are:

(a) write arguments to support claims with clear reasons and relevant evidence;

(i) introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically;

(ii) support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources, including oral sources, and demonstrating an understanding of the topic or text;

(iii) use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence;

(iv) establish and maintain a formal style; and

(v) provide a concluding statement or section that follows from and supports the argument presented;

(b) write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content;

(i) introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information using strategies such as definition, classification, comparison/contrast, and cause/effect and include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension;

(ii) develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples;

(iii) use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts;

(iv) use precise language and domain-specific vocabulary to inform about or explain the topic;

(v) establish and maintain a formal style; and

(vi) provide a concluding statement or section that follows from and supports the information or explanation presented;

- (c) write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences;
 - (i) engage and orient the reader by establishing a context, point of view, and introducing a narrator and/or characters and organize an event sequence that unfolds naturally and logically;
 - (ii) use narrative techniques, such as dialogue, pacing, and description to develop experiences, events, and/or characters;
 - (iii) use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another;
 - (iv) use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events; and
 - (v) provide a conclusion that follows from and reflects on the narrated experiences or events;
- (d) produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (Grade-specific expectations for writing types are defined in standards (a) through (c).);
- (e) with some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach and focusing on how well purpose and audience have been addressed (Editing for conventions should demonstrate command of Language standards(a) through (c) up to and including Grade 7.);
- (f) use technology, including the internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources;
- (g) conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation and include sources and/or topics by and about American Indians;
- (h) gather relevant information from multiple print and digital sources using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation;
- (i) draw evidence from literary or informational texts to support analysis, reflection, and research;
 - (i) apply Grade 7 reading standards to literature (e.g., "Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history"); and
 - (ii) apply Grade 7 reading standards to literary nonfiction (e.g. "Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims"); and
- (j) write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

(9) Writing standards for a student at the Grade 8 level are:

(a) write arguments to support claims with clear reasons and relevant evidence;

(i) introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically;

(ii) support claim(s) with logical reasoning and relevant evidence using accurate, credible sources, including oral sources, and demonstrating an understanding of the topic or text;

(iii) use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence;

(iv) establish and maintain a formal style; and

(v) provide a concluding statement or section that follows from and supports the argument presented;

(b) write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content;

(i) introduce a topic clearly previewing what is to follow; organize ideas, concepts, and information into broader categories; and include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension;

(ii) develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples;

(iii) use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts;

(iv) use precise language and domain-specific vocabulary to inform about or explain the topic;

(v) establish and maintain a formal style; and

(vi) provide a concluding statement or section that follows from and supports the information or explanation presented;

(c) write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences;

(i) engage and orient the reader by establishing a context, point of view, and introducing a narrator and/or characters and organize an event sequence that unfolds naturally and logically;

(ii) use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters;

(iii) use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events;

(iv) use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events; and

(v) provide a conclusion that follows from and reflects on the narrated experiences or events;

(d) produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (Grade-specific expectations for writing types are defined in standards (a) through (c) above.);

(e) with some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed (Editing for conventions should demonstrate command of language standards (a) through (c) up to and including Grade 8.);

(f) use technology, including the internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others;

(g) conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration and include sources and/or topics by and about American Indians;

(h) gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation;

(i) draw evidence from literary or informational texts to support analysis, reflection, and research;

(i) apply Grade 8 reading standards to literature (e.g., "Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new"); and

(ii) apply Grade 8 reading standards to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient and recognize when irrelevant evidence is introduced"); and

(j) write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

(10) Writing standards for a student at the Grade 9-10 level are:

(a) write arguments to support claims in an analysis of substantive topics or text, including culturally diverse topics or texts, using valid reasoning and relevant and sufficient evidence;

(i) introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence;

(ii) develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns;

- (iii) use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, reasons and evidence, and claim(s) and counterclaims;
 - (iv) establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing; and
 - (v) provide a concluding statement or section that follows from and supports the argument presented;
- (b) write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content;
 - (i) introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; and include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aid comprehension;
 - (ii) develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic;
 - (iii) use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts;
 - (iv) use precise language and domain-specific vocabulary to manage the complexity of the topic;
 - (v) establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing; and
 - (vi) provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic);
 - (c) write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences;
 - (i) engage and orient the reader by setting out a problem, situation, or observation; establishing one or multiple point(s) of view; introducing a narrator and/or characters; and create a smooth progression of experiences or events;
 - (ii) use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters;
 - (iii) use a variety of techniques to sequence events so that they build on one another to create a coherent whole;
 - (iv) use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters; and
 - (v) provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative;
 - (d) produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (Grade-specific expectations for writing types are defined in standards (a) through (c) above.);

(e) develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience (Editing for conventions should demonstrate command of language standards (a) through (c) up to and including Grades 9-10.);

(f) use technology, including the internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically;

(g) conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; and synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation;

(h) gather relevant information from multiple authoritative print and digital sources using advanced searches effectively; assess the usefulness of each source in answering the research question; and integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation;

(i) draw evidence from literary or informational texts, including American Indian texts, to support analysis, reflection, and research;

(i) apply Grades 9-10 reading standards to literature (e.g., "Analyze how an author draws on and transforms source material in a specific work [e.g., how Shakespeare treats a theme or topic from Ovid or the Bible or how a later author draws on a play by Shakespeare]" and as in James Welch's *Fools Crow*, the author retells the Pikuni traditional story, "Star Boy"); and

(ii) apply Grades 9-10 reading standards to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text; assessing whether the reasoning is valid and the evidence is relevant and sufficient; and identify false statements and fallacious reasoning"); and

(j) write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

(11) Writing standards for a student at the Grade 11-12 level are:

(a) write arguments to support claims in an analysis of substantive topics or texts, including culturally diverse topics or texts, using valid reasoning and relevant and sufficient evidence;

(i) introduce precise, knowledgeable claim(s); establish the significance of the claim(s); distinguish the claim(s) from alternate or opposing claims; and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence;

(ii) develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases;

(iii) use words, phrases, and clauses as well as varied syntax to link the major sections of the text; create cohesion; and clarify the relationships between claim(s) and reasons, reasons and evidence, and claim(s) and counterclaims;

- (iv) establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing; and
- (v) provide a concluding statement or section that follows from and supports the argument presented;
- (b) write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content;
 - (i) introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; and include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aid comprehension;
 - (ii) develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic;
 - (iii) use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts;
 - (iv) use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic;
 - (v) establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing; and
 - (vi) provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic);
- (c) write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences;
 - (i) engage and orient the reader by setting out a problem, situation, or observation and its significance; establish one or multiple point(s) of view; introduce a narrator and/or characters; and create a smooth progression of experiences or events;
 - (ii) use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters;
 - (iii) use a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome (e.g., a sense of mystery, suspense, growth, or resolution);
 - (iv) use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters; and
 - (v) provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative;
- (d) produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience (Grade-specific expectations for writing types are defined in standards (a) through (c) above.);

(e) develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience (Editing for conventions should demonstrate command of language standards (a) through (c) up to and including Grades 11-12.);

(f) use technology, including the internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback and include new arguments or information;

(g) conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, and demonstrate understanding of the subject under investigation;

(h) gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; and integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation;

(i) draw evidence from literary or informational texts, including those by and about American Indians, to support analysis, reflection, and research;

(i) apply Grades 11-12 reading standards to literature (e.g., "Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, including how two or more texts from the same period treat similar themes or topics"); and

(ii) apply Grades 11-12 reading standards to literary nonfiction (e.g., "Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning [e.g., in U.S. Supreme Court Case majority opinions and dissents] and the premises, purposes, and arguments in works of public advocacy [e.g., The Federalist, presidential addresses, American Indian Policies]"); and

(j) write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

10.53.409 SPEAKING AND LISTENING STANDARDS (1) Speaking and listening standards for a student at the kindergarten level are:

(a) participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups;

(i) follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion); and

(ii) continue a conversation through multiple exchanges;

(b) confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood;

(c) ask and answer questions in order to seek help, get information, or clarify something that is not understood;

- (d) describe familiar people, places, things, and events and, with prompting and support, provide additional detail;
 - (e) add drawings or other visual displays to descriptions as desired to provide additional detail; and
 - (f) speak audibly and express thoughts, feelings, and ideas clearly.
- (2) Speaking and listening standards for a student at the Grade 1 level are:
- (a) participate in collaborative conversations with diverse partners about Grade 1 topics and texts with peers and adults in small and larger groups;
 - (i) follow agreed-upon rules for discussions (e.g., listening to others with care and speaking one at a time about the topics and texts under discussion);
 - (ii) build on others' talk in conversations by responding to the comments of others through multiple exchanges; and
 - (iii) ask questions to clear up any confusion about the topics and texts under discussion;
 - (b) ask and answer questions about key details in a text read aloud or information presented orally or through other media;
 - (c) ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood;
 - (d) describe people, places, things, and events with relevant details, expressing ideas and feelings clearly;
 - (e) add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings; and
 - (f) produce complete sentences when appropriate to task and situation (See Grade 1 Language standards (a) and (c) for specific expectations.);
- (3) Speaking and listening standards for a student at the Grade 2 level are:
- (a) participate in collaborative conversations with diverse partners about Grade 2 topics and texts with peers and adults in small and larger groups;
 - (i) follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, and speaking one at a time about the topics and texts under discussion);
 - (ii) build on others' talk in conversations by linking their comments to the remarks of others; and
 - (iii) ask for clarification and further explanation as needed about the topics and texts under discussion;
 - (b) recount or describe key ideas or details from a text read aloud or information presented orally or through other media;
 - (c) ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue;
 - (d) tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences;
 - (e) create audio recordings of stories or poems and add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings; and
 - (f) produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

- (4) Speaking and listening standards for a student at the Grade 3 level are:
- (a) engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on Grade 3 topics and texts, building on others' ideas and expressing their own clearly;
 - (i) come to discussions prepared, having read or studied required material and explicitly draw on that preparation and other information known about the topic to explore ideas under discussion;
 - (ii) follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care and speaking one at a time about the topics and texts under discussion);
 - (iii) ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others; and
 - (iv) explain their own ideas and understanding in light of the discussion;
 - (b) determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally;
 - (c) ask and answer questions about information from a speaker, offering appropriate elaboration and detail;
 - (d) report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details; speak clearly at an understandable pace; and include sources by and about American Indians;
 - (e) create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace and add visual displays when appropriate to emphasize or enhance certain facts or details; and
 - (f) speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See Grade 3 language standards (a) and (c) for specific expectations.)
- (5) Speaking and listening standards for a student at the Grade 4 level are:
- (a) engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on Grade 4 topics and texts, building on others' ideas and expressing their own clearly;
 - (i) come to discussions prepared, having read or studied required material and explicitly draw on that preparation and other information known about the topic to explore ideas under discussion;
 - (ii) follow agreed-upon rules for discussions and carry out assigned roles;
 - (iii) pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others; and
 - (iv) review the key ideas expressed and explain their own ideas and understanding in light of the discussion;
 - (b) paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally;
 - (c) identify the reasons and evidence a speaker provides to support particular points;

(d) report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace; and include sources by and about American Indians;

(e) add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes; and

(f) differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion) and use formal English when appropriate to task and situation. (See Grade 4 language standard (a) for specific expectations.)

(6) Speaking and listening standards for a student at the Grade 5 level are:

(a) engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on Grade 5 topics and texts, building on others' ideas and expressing their own clearly;

(i) come to discussions prepared, having read or studied required material and explicitly draw on that preparation and other information known about the topic to explore ideas under discussion;

(ii) follow agreed-upon rules for discussions and carry out assigned roles;

(iii) pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others; and

(iv) review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions;

(b) summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally;

(c) summarize the points a speaker makes and explain how each claim is supported by reasons and evidence;

(d) report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace; and include sources by and about American Indians;

(e) include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes; and

(f) adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See Grade 5 language standards (a) and (c) for specific expectations.)

(7) Speaking and listening standards for a student at the Grade 6 level are:

(a) engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on Grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly;

(i) come to discussions prepared, having read or studied required material and explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion;

(ii) follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed;

- (iii) pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion; and
 - (iv) review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing;
 - (b) interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study;
 - (c) delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not;
 - (d) present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes and use appropriate eye contact, adequate volume, and clear pronunciation;
 - (e) include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information; and
 - (f) adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See Grade 6 language standards (a) and (c) for specific expectations.)
- (8) Speaking and listening standards for a student at the Grade 7 level are:
- (a) engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on Grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly;
 - (i) come to discussions prepared, having read or researched material under study and explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion;
 - (ii) follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed;
 - (iii) pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed; and
 - (iv) acknowledge new information expressed by others and, when warranted, modify their own views;
 - (b) analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study;
 - (c) delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence;
 - (d) present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples and use appropriate eye contact, adequate volume, and clear pronunciation;
 - (e) include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points; and
 - (f) adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See Grade 7 language standards (a) and (c) for specific expectations.)

(9) Speaking and listening standards for a student at the Grade 8 level are:

(a) engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly;

(i) come to discussions prepared, having read or researched material under study and explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion;

(ii) follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed;

(iii) pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas; and

(iv) acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented;

(b) analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation;

(c) delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced;

(d) present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details and use appropriate eye contact, adequate volume, and clear pronunciation;

(e) integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest; and

(f) adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See Grade 8 language standards (a) and (c) for specific expectations.)

(10) Speaking and listening standards for a student at the Grade 9-10 level are:

(a) initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on Grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively;

(i) come to discussions prepared, having read and researched material under study and explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas;

(ii) work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed;

(iii) propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions; and

(iv) respond thoughtfully to diverse perspectives, with specific attention to culture; summarize points of agreement and disagreement; when warranted, qualify or justify their own views and understanding; and make new connections in light of the evidence and reasoning presented;

(b) integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source;

(c) evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, including culturally diverse contexts, identifying any fallacious reasoning or exaggerated or distorted evidence;

(d) present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task;

(e) make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest; and

(f) adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See Grades 9-10 language standards (a) and (c) for specific expectations.)

(11) Speaking and listening standards for a student at the Grade 11-12 level are:

(a) initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on Grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively;

(i) come to discussions prepared, having read and researched material under study and explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas;

(ii) work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed;

(iii) propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives; and

(iv) respond thoughtfully to diverse perspectives, with specific attention to culture; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task;

(b) integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data;

(c) evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, including culturally diverse contexts, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used;

(d) present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks;

(e) make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest; and

(f) adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate. (See Grades 11-12 language standards (a) and (c) for specific expectations.) (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

10.53.410 LANGUAGE STANDARDS (1) Language standards for a student at the kindergarten level are:

- (a) demonstrate command of the conventions of standard English grammar and usage when writing or speaking;
- (i) print many upper- and lowercase letters;
 - (ii) use frequently occurring nouns and verbs;
 - (iii) form regular plural nouns orally by adding /s/ or /es/ (e.g., dog, dogs; wish, wishes);
 - (iv) understand and use question words (interrogatives) (e.g., who, what, where, when, why, how);
 - (v) use the most frequently occurring prepositions (e.g., to, from, in, out, on, off, for, of, by, with); and
 - (vi) produce and expand complete sentences in shared language activities;
- (b) demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing;
- (i) capitalize the first word in a sentence and the pronoun "I";
 - (ii) recognize and name end punctuation;
 - (iii) write a letter or letters for most consonant and short-vowel sounds (phonemes); and
 - (iv) spell simple words phonetically, drawing on knowledge of sound-letter relationships;
- (c) determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content;
- (i) identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck); and
 - (ii) use the most frequently occurring inflections and affixes (e.g., -ed, -s, re-, un-, pre-, -ful, -less) as a clue to the meaning of an unknown word;
- (d) with guidance and support from adults, explore word relationships and nuances in word meanings;
- (i) sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent;
 - (ii) demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms);
 - (iii) identify real-life connections between words and their use (e.g., note places at school that are colorful); and
 - (iv) distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings; and
 - (e) use words and phrases acquired through conversations, reading and being read to, and responding to texts.

- (2) Language standards for a student at the Grade 1 level are:
- (a) demonstrate command of the conventions of standard English grammar and usage when writing or speaking;
- (i) print all upper- and lowercase letters;
 - (ii) use common, proper, and possessive nouns;
 - (iii) use singular and plural nouns with matching verbs in basic sentences (e.g., He hops; We hop);
 - (iv) use personal, possessive, and indefinite pronouns (e.g., I, me, my; they, them, their; anyone, everything);
 - (v) use verbs to convey a sense of past, present, and future (e.g., Yesterday I walked home; Today I walk home; Tomorrow I will walk home);
 - (vi) use frequently occurring adjectives;
 - (vii) use frequently occurring conjunctions (e.g., and, but, or, so, because);
 - (viii) use determiners (e.g., articles, demonstratives);
 - (ix) use frequently occurring prepositions (e.g., during, beyond, toward); and
 - (x) produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts;
- (b) demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing;
- (i) capitalize dates and names of people;
 - (ii) use end punctuation for sentences;
 - (iii) use commas in dates and to separate single words in a series;
 - (iv) use conventional spelling for words with common spelling patterns and for frequently occurring irregular words; and
 - (v) spell untaught words phonetically, drawing on phonemic awareness and spelling conventions;
- (c) determine or clarify the meaning of unknown and multiple-meaning words and phrases based on Grade 1 reading and content, choosing flexibly from an array of strategies;
- (i) use sentence-level context as a clue to the meaning of a word or phrase;
 - (ii) use frequently occurring affixes as a clue to the meaning of a word; and
 - (iii) identify frequently occurring root words (e.g., look) and their inflectional forms (e.g., looks, looked, looking);
- (d) with guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings;
- (i) sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent;
 - (ii) define words by category and by one or more key attributes (e.g., a duck is a bird that swims; a tiger is a large cat with stripes);
 - (iii) identify real-life connections between words and their use (e.g., note places at home that are cozy); and
 - (iv) distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings; and
 - (e) use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., because).

- (3) Language standards for a student at the Grade 2 level are:
- (a) demonstrate command of the conventions of standard English grammar and usage when writing or speaking;
 - (i) use collective nouns (e.g., group);
 - (ii) form and use frequently occurring irregular plural nouns (e.g., feet, children, teeth, mice, fish);
 - (iii) use reflexive pronouns (e.g., myself, ourselves);
 - (iv) form and use the past tense of frequently occurring irregular verbs (e.g., sat, hid, told);
 - (v) use adjectives and adverbs and choose between them depending on what is to be modified; and
 - (vi) produce, expand, and rearrange complete simple and compound sentences (e.g., the boy watched the movie; the little boy watched the movie; the action movie was watched by the little boy);
 - (b) demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing;
 - (i) capitalize holidays, product names, and geographic names;
 - (ii) use commas in greetings and closings of letters;
 - (iii) use an apostrophe to form contractions and frequently occurring possessives;
 - (iv) generalize learned spelling patterns when writing words (e.g., cage → badge; boy → boil); and
 - (v) consult reference materials, including beginning dictionaries, as needed to check and correct spellings;
 - (c) use knowledge of language and its conventions when writing, speaking, reading, or listening;
 - (i) compare formal and informal uses of English;
 - (d) determine or clarify the meaning of unknown and multiple-meaning words and phrases based on Grade 2 reading and content, choosing flexibly from an array of strategies;
 - (i) use sentence-level context as a clue to the meaning of a word or phrase;
 - (ii) determine the meaning of the new word formed when a known prefix is added to a known word (e.g., happy/unhappy, tell/retell);
 - (iii) use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional);
 - (iv) use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark); and
 - (v) use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases;
 - (e) demonstrate understanding of word relationships and nuances in word meanings;
 - (i) identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy); and
 - (ii) distinguish shades of meaning among closely related verbs (e.g., toss, throw, hurl) and closely related adjectives (e.g., thin, slender, skinny, scrawny); and

(f) use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., when other kids are happy that makes me happy).

(4) Language standards for a student at the Grade 3 level are:

- (a) demonstrate command of the conventions of standard English grammar and usage when writing or speaking;
 - (i) explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences;
 - (ii) form and use regular and irregular plural nouns;
 - (iii) use abstract nouns (e.g., childhood);
 - (iv) form and use regular and irregular verbs;
 - (v) form and use the simple (e.g., I walked; I walk; I will walk) verb tenses;
 - (vi) ensure subject-verb and pronoun-antecedent agreement;
 - (vii) form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified;
 - (viii) use coordinating and subordinating conjunctions; and
 - (ix) produce simple, compound, and complex sentences;
- (b) demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing;
 - (i) capitalize appropriate words in titles;
 - (ii) use commas in addresses;
 - (iii) use commas and quotation marks in dialogue;
 - (iv) form and use possessives;
 - (v) use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., sitting, smiled, cries, happiness);
 - (vi) use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words; and
 - (vii) consult reference materials, including beginning dictionaries, as needed to check and correct spellings;
- (c) use knowledge of language and its conventions when writing, speaking, reading, or listening;
 - (i) choose words and phrases for effect; and
 - (ii) recognize and observe differences between the conventions of spoken and written standard English;
- (d) determine or clarify the meaning of unknown and multiple-meaning word and phrases based on Grade 3 reading and content, choosing flexibly from a range of strategies;
 - (i) use sentence-level context as a clue to the meaning of a word or phrase;
 - (ii) determine the meaning of the new word formed when a known affix is added to a known word (e.g., agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat);
 - (iii) use a known root word as a clue to the meaning of an unknown word with the same root (e.g., company, companion); and
 - (iv) use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases;

(e) demonstrate understanding of word relationships and nuances in word meanings;

(i) distinguish the literal and nonliteral meanings of words and phrases in context (e.g., take steps);

(ii) identify real-life connections between words and their use (e.g., describe people who are friendly or helpful); and

(iii) distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., knew, believed, suspected, heard, wondered); and

(f) acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., after dinner that night we went looking for them).

(5) Language standards for a student at the Grade 4 level are:

(a) demonstrate command of the conventions of standard English grammar and usage when writing or speaking;

(i) use relative pronouns (who, whose, whom, which, that) and relative adverbs (where, when, why);

(ii) form and use the progressive (e.g., I was walking; I am walking; I will be walking) verb tenses;

(iii) use modal auxiliaries (e.g., can, may, must) to convey various conditions;

(iv) order adjectives within sentences according to conventional patterns (e.g., a small red bag rather than a red small bag);

(v) form and use prepositional phrases;

(vi) produce complete sentences, recognizing and correcting inappropriate fragments and run-ons; and

(vii) correctly use frequently confused words (e.g., to, too, two; there, their);

(b) demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing;

(i) use correct capitalization;

(ii) use commas and quotation marks to mark direct speech and quotations from a text;

(iii) use a comma before a coordinating conjunction in a compound sentence; and

(iv) spell grade-appropriate words correctly, consulting references as needed;

(c) use knowledge of language and its conventions when writing, speaking, reading, or listening;

(i) choose words and phrases to convey ideas precisely;

(ii) choose punctuation for effect; and

(iii) differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion);

(d) determine or clarify the meaning of unknown and multiple-meaning words and phrases based on Grade 4 reading and content, choosing flexibly from a range of strategies;

(i) use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase;

(ii) use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph); and

(iii) consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases;

(e) demonstrate understanding of figurative language, word relationships, and nuances in word meanings;

(i) explain the meaning of simple similes and metaphors (e.g., as pretty as a picture) in context;

(ii) recognize and explain the meaning of common idioms, adages, and proverbs; and

(iii) demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms); and

(f) acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation).

(6) Language standards for a student at the Grade 5 level are:

(a) demonstrate command of the conventions of standard English grammar and usage when writing or speaking;

(i) explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences;

(ii) form and use the perfect (e.g., I had walked; I have walked; I will have walked) verb tenses;

(iii) use verb tense to convey various times, sequences, states, and conditions;

(iv) recognize and correct inappropriate shifts in verb tense; and

(v) use correlative conjunctions (e.g., either/or, neither/nor);

(b) demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing;

(i) use punctuation to separate items in a series;

(ii) use a comma to separate an introductory element from the rest of the sentence;

(iii) use a comma to set off the words yes and no (e.g., Yes, thank you), to set off a tag question from the rest of the sentence (e.g., It's true, isn't it?), and to indicate direct address (e.g., Is that you, Steve?);

(iv) use underlining, quotation marks, or italics to indicate titles of works; and

(v) spell grade-appropriate words correctly, consulting references as needed;

- (c) use knowledge of language and its conventions when writing, speaking, reading, or listening;
 - (i) expand, combine, and reduce sentences for meaning, reader/listener interest, and style; and
 - (ii) compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems;
 - (d) determine or clarify the meaning of unknown and multiple-meaning words and phrases based on Grade 5 reading and content, choosing flexibly from a range of strategies;
 - (i) use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase;
 - (ii) use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., photograph, photosynthesis); and
 - (iii) consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases;
 - (e) demonstrate understanding of figurative language, word relationships, and nuances in word meanings;
 - (i) interpret figurative language, including similes and metaphors, in context;
 - (ii) recognize and explain the meaning of common idioms, adages, and proverbs; and
 - (iii) use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words; and
 - (f) acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition).
- (7) Language standards for a student at the Grade 6 level are:
- (a) demonstrate command of the conventions of standard English grammar and usage when writing or speaking;
 - (i) ensure that pronouns are in the proper case (subjective, objective, possessive);
 - (ii) use intensive pronouns (e.g., myself, ourselves);
 - (iii) recognize and correct inappropriate shifts in pronoun number and person;
 - (iv) recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents); and
 - (v) recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language;
 - (b) demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing;
 - (i) use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements; and
 - (ii) spell correctly;

- (c) use knowledge of language and its conventions when writing, speaking, reading, or listening;
 - (i) vary sentence patterns for meaning, reader/listener interest, and style; and
 - (ii) maintain consistency in style and tone;
- (d) determine or clarify the meaning of unknown and multiple-meaning words and phrases based on Grade 6 reading and content, choosing flexibly from a range of strategies;
 - (i) use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase;
 - (ii) use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., audience, auditory, audible);
 - (iii) consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech; and
 - (iv) verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary);
 - (e) demonstrate understanding of figurative language, word relationships, and nuances in word meanings;
 - (i) interpret figures of speech (e.g., personification) in context;
 - (ii) use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words;
 - (iii) distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., stingy, scrimping, economical, un wasteful, thrifty); and
 - (iv) recognize the influence time, culture, gender and social relationships have upon word meaning; and
 - (f) acquire and use accurately grade-appropriate general academic and domain-specific words and phrases and gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- (8) Language standards for a student at the Grade 7 level are:
 - (a) demonstrate command of the conventions of standard English grammar and usage when writing or speaking;
 - (i) explain the function of phrases and clauses in general and their function in specific sentences;
 - (ii) choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas; and
 - (iii) place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers;
 - (b) demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing;
 - (i) use a comma to separate coordinate adjectives (e.g., It was a fascinating, enjoyable movie, but not, He wore an old[,] green shirt); and
 - (ii) spell correctly;

- (c) use knowledge of language and its conventions when writing, speaking, reading, or listening;
 - (i) choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy;
 - (d) determine or clarify the meaning of unknown and multiple-meaning words and phrases based on Grade 7 reading and content, choosing flexibly from a range of strategies;
 - (i) use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase;
 - (ii) use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., belligerent, bellicose, rebel);
 - (iii) consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech; and
 - (iv) verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary);
 - (e) demonstrate understanding of figurative language, word relationships, and nuances in word meanings;
 - (i) interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context;
 - (ii) use the relationship between particular words (e.g., synonym, antonym, analogy) to better understand each of the words;
 - (iii) distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., refined, respectful, polite, diplomatic, condescending); and
 - (iv) recognize the influence time, culture, gender, and social relationships have upon word meaning; and
 - (f) acquire and use accurately grade-appropriate general academic and domain-specific words and phrases and gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.
 - (9) Language standards for a student at the Grade 8 level are:
 - (a) demonstrate command of the conventions of standard English grammar and usage when writing or speaking;
 - (i) explain the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences;
 - (ii) form and use verbs in the active and passive voice;
 - (iii) form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood; and
 - (iv) recognize and correct inappropriate shifts in verb voice and mood;
 - (b) demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing;
 - (i) use punctuation (comma, ellipsis, dash) to indicate a pause or break;
 - (ii) use an ellipsis to indicate an omission; and
 - (iii) spell correctly;

- (c) use knowledge of language and its conventions when writing, speaking, reading, or listening;
 - (i) use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty; or describing a state contrary to fact);
 - (d) determine or clarify the meaning of unknown and multiple-meaning words or phrases based on Grade 8 reading and content, choosing flexibly from a range of strategies;
 - (i) use context (e.g., the overall meaning of a sentence or paragraph; a word's position; or function in a sentence) as a clue to the meaning of a word or phrase;
 - (ii) use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., precede, recede, secede);
 - (iii) consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech; and
 - (iv) verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary);
 - (e) demonstrate understanding of figurative language, word relationships, and nuances in word meanings;
 - (i) interpret figures of speech (e.g. verbal irony, puns) in context;
 - (ii) use the relationship between particular words to better understand each of the words;
 - (iii) distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., bullheaded, willful, firm, persistent, resolute); and
 - (iv) recognize the influence time, culture, gender, and social relationships have upon word meaning; and
 - (f) acquire and use accurately grade-appropriate general academic and domain-specific words and phrases and gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.
 - (10) Language standards for a student at the Grade 9-10 level are:
 - (a) demonstrate command of the conventions of standard English grammar and usage when writing or speaking;
 - (i) use parallel structure; and
 - (ii) use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to convey specific meanings and add variety and interest to writing or presentations;
 - (b) demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing;
 - (i) use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses;
 - (ii) use a colon to introduce a list or quotation; and
 - (iii) spell correctly;

(c) apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening;

(i) write and edit work so that it conforms to the guidelines in a style manual (e.g., MLA Handbook, Turabian's Manual for Writers) appropriate for the discipline and writing type;

(d) determine or clarify the meaning of unknown and multiple-meaning words and phrases based on Grades 9-10 reading and content, choosing flexibly from a range of strategies, recognizing the role culture plays in the development of language;

(i) use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase;

(ii) identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., analyze, analysis, analytical; advocate, advocacy);

(iii) consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, part of speech, or etymology; and

(iv) verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary);

(e) demonstrate understanding of figurative language, word relationships, and nuances in word meanings;

(i) interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in the text; and

(ii) analyze nuances in the meaning of words with similar denotations; and

(f) acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level and demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

(11) Language standards for a student at the Grade 11-12 level are:

(a) demonstrate command of the conventions of standard English grammar and usage when writing or speaking;

(i) apply the understanding that usage is a matter of convention, can change over time, and is sometimes contested; and

(ii) resolve issues of complex or contested usage, consulting references (e.g., Merriam-Webster's Dictionary of English Usage, Garner's Modern American Usage) as needed;

(b) demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing;

(i) observe hyphenation conventions; and

(ii) spell correctly;

- (c) apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening;
- (i) vary syntax for effect, consulting references (e.g., Tufte's *Artful Sentences*) for guidance as needed and apply an understanding of syntax to the study of complex texts when reading;
- (d) determine or clarify the meaning of unknown and multiple-meaning words and phrases based on Grades 11-12 reading and content, choosing flexibly from a range of strategies and recognizing the role culture plays in the development of language;
- (i) use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase;
- (ii) identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., conceive, conception, conceivable);
- (iii) consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, part of speech, etymology, or standard usage; and
- (iv) verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary);
- (e) demonstrate understanding of figurative language, word relationships, and nuances in word meanings;
- (i) interpret figures of speech (e.g., hyperbole, paradox) in context and analyze their role in the text; and
- (ii) analyze nuances in the meaning of words with similar denotations; and
- (f) acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level and demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

10.53.411 READING STANDARDS FOR LITERACY IN HISTORY/ SOCIAL STUDIES (1) Reading standards for literacy in history/social studies for a student at the Grade 6-8 level are:

- (a) cite specific textual evidence to support analysis of primary and secondary sources;
- (b) determine the central ideas or information of a primary or secondary source and provide an accurate summary of the source distinct from prior knowledge or opinions;
- (c) identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered);
- (d) determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies;

(e) describe how a text presents information (e.g., sequentially, comparatively, causally);

(f) identify aspects of a text, including those by and about American Indians, that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts);

(g) integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts;

(h) distinguish among fact, opinion, and reasoned judgment in a text, including texts by and about American Indians;

(i) analyze the relationship between a primary and secondary source on the same topic, including sources by and about American Indians; and

(j) by the end of Grade 8, read and comprehend history/social studies texts in the Grades 6-8 text complexity band independently and proficiently.

(2) Reading standards for literacy in history/social studies for a student at the Grade 9-10 level are:

(a) cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information;

(b) determine the central ideas or information of a primary or secondary source and provide an accurate summary of how key events or ideas develop over the course of the text;

(c) analyze in detail a series of events described in a text and determine whether earlier events caused later ones or simply preceded them;

(d) determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, cultural, or economic aspects of history/social studies;

(e) analyze how a text uses structure to emphasize key points or advance an explanation or analysis;

(f) compare the point of view of two or more authors, incorporating American Indian authors, for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts;

(g) integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text;

(h) assess the extent to which the reasoning and evidence in a text support the author's claims; include texts by and about American Indians;

(i) compare and contrast treatments of the same topic in several primary and secondary sources, including American Indian sources; and

(j) by the end of Grade 10, read and comprehend history/social studies texts in the Grades 9-10 text complexity band independently and proficiently.

(3) Reading standards for literacy in history/social studies for a student at the Grade 11-12 level are:

(a) cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole;

(b) determine the central ideas or information of a primary or secondary source and provide an accurate summary that makes clear the relationships among the key details and ideas;

(c) evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain;

(d) determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10 and how the use of "sovereignty" in official documents impacts political and legal relationships);

(e) analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole;

(f) evaluate authors', incorporating American Indian authors, differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence;

(g) integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem;

(h) evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information, including texts by and about American Indians;

(i) integrate information from diverse sources, including American Indian sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources; and

(j) by the end of Grade 12, read and comprehend history/social studies texts in the Grades 11-CCR text complexity band independently and proficiently. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

10.53.412 READING STANDARDS FOR LITERACY IN SCIENCE AND TECHNICAL SUBJECTS (1) Reading standards for literacy in science and technical subjects for a student at the Grade 6-8 level are:

(a) cite specific textual evidence to support analysis of science and technical texts;

(b) determine the central ideas or conclusions of a text and provide an accurate summary of the text distinct from prior knowledge or opinions;

(c) follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks;

(d) determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to Grades 6-8 texts and topics;

(e) analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic;

(f) analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text;

(g) integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table);

(h) distinguish among facts, reasoned judgment based on research findings, and speculation in a text; include texts by and about American Indians;

(i) compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic; and

(j) by the end of Grade 8, read and comprehend science/technical texts in the Grades 6-8 text complexity band independently and proficiently.

(2) Reading standards for literacy in science and technical subjects for a student at the Grade 9-10 level are:

(a) cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions;

(b) determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; and provide an accurate summary of the text;

(c) follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text;

(d) determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to Grades 9-10 texts and topics;

(e) analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy);

(f) analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address;

(g) translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words;

(h) assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving scientific or technical problems;

(i) compare and contrast findings presented in a text to those from other sources (including their own experiments, and knowledge derived from American Indian cultures), noting when the findings support or contradict previous explanations or accounts; and

(j) by the end of Grade 10, read and comprehend science/technical texts in the Grades 9-10 text complexity band independently and proficiently.

(3) Reading standards for literacy in science and technical subjects for a student at the Grade 11-12 level are:

(a) cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account;

- (b) determine the central ideas or conclusions of a text and summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms;
- (c) follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks and analyze the specific results based on explanations in the text;
- (d) determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to Grades 11-12 texts and topics;
- (e) analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas;
- (f) analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved;
- (g) integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia, Montana tribal resources) in order to address a question or solve a problem;
- (h) evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information, including those from American Indians;
- (i) synthesize information from a range of sources (e.g., texts, experiments, simulations, and knowledge derived from American Indian cultures) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible; and
- (j) by the end of Grade 12, read and comprehend science/technical texts in the Grades 11-CCR text complexity band independently and proficiently. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

10.53.413 WRITING STANDARDS FOR LITERACY IN HISTORY/SOCIAL STUDIES, SCIENCE, AND TECHNICAL SUBJECTS

- (1) Writing standards for literacy in history/social studies, science, and technical subjects for a student at the Grade 6-8 level are:
 - (a) write arguments focused on discipline-specific content;
 - (i) introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically;
 - (ii) support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources;
 - (iii) use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence;
 - (iv) establish and maintain a formal style; and
 - (v) provide a concluding statement or section that follows from and supports the argument presented;

(b) write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes;

(i) introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; and include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension;

(ii) develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples;

(iii) use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts;

(iv) use precise language and domain-specific vocabulary to inform about or explain the topic;

(v) establish and maintain a formal style and objective tone; and

(vi) provide a concluding statement or section that follows from and supports the information or explanation presented;

(c) produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience;

(d) with some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed;

(e) use technology, including the internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently;

(f) conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration;

(g) gather relevant information from multiple oral, print, and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation;

(h) draw evidence from informational texts to support analysis, reflection, and research, including texts by and about American Indians; and

(i) write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

(2) Writing standards for literacy in history/social studies, science, and technical subjects for a student at the Grade 9-10 level are:

(a) write arguments focused on discipline-specific content;

(i) introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence;

(ii) develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns;

- (iii) use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, reasons and evidence, and claim(s) and counterclaims;
- (iv) establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing; and
- (v) provide a concluding statement or section that follows from or supports the argument presented;
- (b) write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes;
 - (i) introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aid comprehension;
 - (ii) develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic;
 - (iii) use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts;
 - (iv) use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers;
 - (v) establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing; and
 - (vi) provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic);
- (c) produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience;
 - (d) develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience;
 - (e) use technology, including the internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and display information flexibly and dynamically;
 - (f) conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; and synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation;
 - (g) gather relevant information from multiple authoritative oral, print, and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; and integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation;
 - (h) draw evidence from informational texts to support analysis, reflection, and research, including texts by and about American Indians; and
 - (i) write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

(3) Writing standards for literacy in history/social studies, science, and technical subjects for a student at the Grade 11-12 level are:

(a) Write arguments focused on discipline-specific content;

(i) introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence;

(ii) develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases;

(iii) use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, reasons and evidence, and claim(s) and counterclaims;

(iv) establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing; and

(v) provide a concluding statement or section that follows from or supports the argument presented;

(b) write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes;

(i) introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole and include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension;

(ii) develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic;

(iii) use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts;

(iv) use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers; and

(v) provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic);

(c) produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience;

(d) develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience;

(e) use technology, including the internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information;

(f) conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation;

(g) gather relevant information from multiple authoritative oral, print, and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; and integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation;

(h) draw evidence from informational texts to support analysis, reflection, and research, including texts by and about American Indians; and

(i) write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2520, Eff. 11/26/11.)

Subchapter 5

Mathematics Content Standards

10.53.501 STANDARDS FOR MATHEMATICAL PRACTICE FOR GRADES

K-12 (1) Mathematical practice standard 1 is to make sense of problems and persevere in solving them. Mathematically proficient students:

- (a) explain the meaning of a problem and restate it in their words;
 - (b) analyze given information to develop possible strategies for solving the problem;
 - (c) identify and execute appropriate strategies to solve the problem;
 - (d) evaluate progress toward the solution and make revisions if necessary;
- and
- (e) check their answers using a different method and continually ask "Does this make sense?".

(2) Mathematical practice standard 2 is to reason abstractly and quantitatively. Mathematically proficient students:

- (a) make sense of quantities and their relationships in problem situations;
- (b) use varied representations and approaches when solving problems;
- (c) know and flexibly use different properties of operations and objects; and
- (d) change perspectives, generate alternatives, and consider different options.

(3) Mathematical practice standard 3 is to construct viable arguments and critique the reasoning of others. Mathematically proficient students:

- (a) understand and use prior learning in constructing arguments;
- (b) habitually ask "why" and seek an answer to that question;
- (c) question and problem-pose;
- (d) develop questioning strategies to generate information;
- (e) seek to understand alternative approaches suggested by others and as a result, adopt better approaches;
- (f) justify their conclusions, communicate them to others, and respond to the arguments of others; and
- (g) compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and if there is a flaw in an argument, explain what it is.

(4) Mathematical practice standard 4 is to model with mathematics. Mathematically proficient students:

- (a) apply the mathematics they know to solve problems arising in everyday life, society, and the workplace;
- (b) make assumptions and approximations to simplify a complicated situation, realizing that these may need revision later;
- (c) identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts, and formulas; and
- (d) analyze mathematical relationships to draw conclusions.

(5) Mathematical practice standard 5 is to use appropriate tools strategically. Mathematically proficient students:

(a) use tools when solving a mathematical problem and to deepen their understanding of concepts (e.g., pencil and paper, physical models, geometric construction and measurement devices, graph paper, calculators, computer-based algebra, or geometry systems); and

(b) make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations and detect possible errors by strategically using estimation and other mathematical knowledge.

(6) Mathematical practice standard 6 is to attend to precision.

Mathematically proficient students:

(a) communicate their understanding of mathematics to others;

(b) use clear definitions and state the meaning of the symbols they choose, including using the equal sign consistently and appropriately;

(c) specify units of measure and use label parts of graphs and charts; and

(d) strive for accuracy.

(7) Mathematical practice standard 7 is to look for and make use of structure.

Mathematically proficient students:

(a) look for, develop, generalize, and describe a pattern orally, symbolically, graphically, and in written form; and

(b) apply and discuss properties.

(8) Mathematical practice standard 8 is to look for and express regularity in repeated reasoning. Mathematically proficient students:

(a) look for mathematically sound shortcuts; and

(b) use repeated applications to generalize properties. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.502 MONTANA KINDERGARTEN MATHEMATICS CONTENT

STANDARDS (1) Mathematics counting and cardinality standards for kindergarten are:

(a) count to 100 by ones and by tens;

(b) count forward beginning from a given number within the known sequence (instead of having to begin at 1);

(c) write numbers from 0-20 and represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects);

(d) understand the relationship between numbers and quantities and connect counting to cardinality;

(i) when counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object from a variety of cultural contexts, including those of Montana American Indians;

(ii) understand that the last number name said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted;

(iii) understand that each successive number name refers to a quantity that is one larger;

- (e) count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration and given a number from 1-20, count out that many objects from a variety of cultural contexts, including those of Montana American Indians;
 - (f) identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies; and
 - (g) compare two numbers between 1 and 10 presented as written numerals.
- (2) Mathematics operations and algebraic thinking content standards for kindergarten are:
- (a) represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations;
 - (b) solve addition and subtraction word problems from a variety of cultural contexts, including those of Montana American Indians, and add and subtract within 10, e.g., by using objects or drawings to represent the problem;
 - (c) decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$);
 - (d) for any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation; and
 - (e) fluently add and subtract within 5.
- (3) Mathematics number and operations in base ten content standard for kindergarten is:
- (a) compose and decompose numbers from 11-19 into ten ones and some further ones, e.g., by using objects or drawings; record each composition or decomposition by a drawing or equation (such as $18 = 10 + 8$); and understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.
- (4) Mathematics measurement and data content standards for kindergarten are:
- (a) describe measurable attributes of objects, such as length or weight and describe several measurable attributes of a single object;
 - (b) directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute and describe the difference; for example, directly compare the heights of two children and describe one child as taller/shorter; and
 - (c) classify objects from a variety of cultural contexts, including those of Montana American Indians, into given categories, count the numbers of objects in each category, and sort the categories by count.

(5) Mathematics geometry content standards for kindergarten are:

- (a) describe objects, including those of Montana American Indians, in the environment using names of shapes and describe the relative positions of these objects using terms such as: above, below, beside, in front of, behind, and next to;
- (b) correctly name shapes regardless of their orientations or overall size;
- (c) identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid");
- (d) analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners"), and other attributes (e.g., having sides of equal length);
- (e) model shapes in the world from a variety of cultural contexts, including those of Montana American Indians, by building shapes from components (e.g., sticks and clay balls) and drawing shapes; and
- (f) compose simple shapes to form larger shapes; for example, "Can you join these two triangles with full sides touching to make a rectangle?". (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.503 MONTANA GRADE 1 MATHEMATICS CONTENT STANDARDS

(1) Mathematics operations and algebraic thinking content standards for Grade 1 are:

- (a) use addition and subtraction within 20 to solve word problems within a cultural context, including those of Montana American Indians, involving situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem;
- (b) solve word problems within a cultural context, including those of Montana American Indians, that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem;
- (c) apply properties of operations as strategies to add and subtract; for example: if $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known (commutative property of addition); to add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$ (associative property of addition);
- (d) understand subtraction as an unknown-addend problem; for example, subtract $10 - 8$ by finding the number that makes 10 when added to 8;
- (e) relate counting to addition and subtraction (e.g., by counting on 2 to add 2);
- (f) add and subtract within 20 demonstrating fluency for addition and subtraction within 10; use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$);

(g) understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false; for example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$; and

(h) determine the unknown whole number in an addition or subtraction equation relating to three whole numbers; for example, determine the unknown number that makes the equation true in each of the equations: $8 + ? = 11$, $5 = ? - 3$, $6 + 6 = ?$.

(2) Mathematics number and operations in base ten content standards for Grade 1 are:

(a) count to 120, starting at any number less than 120 and read and write numerals and represent a number of objects with a written numeral in this range;

(b) understand that the two digits of a two-digit number represent amounts of tens and ones and understand the following as special cases:

(i) 10 can be thought of as a bundle of ten ones called a "ten";

(ii) the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones;

(iii) the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones);

(c) compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$;

(d) add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used; understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten;

(e) given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used; and

(f) subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences) using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction, relate the strategy to a written method, and explain the reasoning used.

(3) Mathematics measurement and data content standards for Grade 1 are:

(a) order three objects from a variety of cultural contexts, including those of Montana American Indians, by length and compare the lengths of two objects indirectly by using a third object;

(b) express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps and limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps;

(c) tell and write time in hours and half-hours using analog and digital clocks; and

(d) organize, represent, and interpret data with up to three categories and ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

(4) Mathematics geometry content standards for Grade 1 are:

(a) distinguish between defining attributes (e.g., triangles are closed and three-sided) versus nondefining attributes (e.g., color, orientation, overall size) and build and draw shapes to possess defining attributes;

(b) compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape;

(c) partition circles and rectangles into two and four equal shares; describe the shares using the words: halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of; describe the whole as two of, or four of the shares; and understand for these examples that decomposing into more equal shares creates smaller shares. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.504 MONTANA GRADE 2 MATHEMATICS CONTENT STANDARDS

(1) Mathematics operations and algebraic thinking content standards for Grade 2 are:

(a) use addition and subtraction within 100 to solve one- and two-step word problems involving situations within a cultural context, including those of Montana American Indians, of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem;

(b) fluently add and subtract within 20 using mental strategies and by the end of Grade 2, know from memory all sums of two one-digit numbers;

(c) determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s and write an equation to express an even number as a sum of two equal addends; and

(d) use addition to find the total number of objects arranged in rectangular arrays with up to five rows and up to five columns and write an equation to express the total as a sum of equal addends.

(2) Mathematics number and operations in base ten content standards for Grade 2 are:

(a) understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones, e.g., 706 equals 7 hundreds, 0 tens, and 6 ones and understand the following special cases:

(i) 100 can be thought of as a bundle of ten tens – called a "hundred;" and

(ii) the numbers 100, 200, 300, 400, 500, 600, 700, 800, and 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones);

- (b) count within 1000; skip-count by 5s, 10s, and 100s;
 - (c) read and write numbers to 1000 using base-ten numerals, number names, and expanded form;
 - (d) compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons;
 - (e) fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction;
 - (f) add up to four two-digit numbers using strategies based on place value and properties of operations;
 - (g) add and subtract within 1000 using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method; understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones, and sometimes it is necessary to compose or decompose tens or hundreds;
 - (h) mentally add 10 or 100 to a given number 100-900 and mentally subtract 10 or 100 from a given number 100-900; and
 - (i) explain why addition and subtraction strategies work using place value and the properties of operations.
- (3) Mathematics measurement and data content standards for Grade 2 are:
- (a) measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes;
 - (b) measure the length of an object twice, using length units of different lengths for the two measurements and describe how the two measurements relate to the size of the unit chosen;
 - (c) estimate lengths using units of inches, feet, centimeters, and meters;
 - (d) measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit;
 - (e) use addition and subtraction within 100 to solve word problems within a cultural context, including those of Montana American Indians, involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem;
 - (f) represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ... and represent whole-number sums and differences within 100 on a number line diagram;
 - (g) tell and write time from analog and digital clocks to the nearest five minutes using a.m. and p.m.;
 - (h) solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately; for example: if you have two dimes and three pennies, how many cents do you have?;

(i) generate measurement data by measuring lengths of several objects to the nearest whole unit or by making repeated measurements of the same object and show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units; and

(j) draw a picture graph and a bar graph (with single unit scale) to represent a data set from a variety of cultural contexts, including those of Montana American Indians, with up to four categories and solve simple put together, take apart and compare problems using information presented in a bar graph.

(4) Mathematics geometry content standards for Grade 2 are:

(a) recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces and identify triangles, quadrilaterals, pentagons, hexagons, and cubes;

(b) partition a rectangle into rows and columns of same size squares and count to find the total number of them; and

(c) partition circles and rectangles into two, three, or four equal shares; describe the shares using the words halves, thirds, half of, a third of, etc.; describe the whole as two halves, three thirds, four fourths; and recognize that equal shares of identical wholes need not have the same shape. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.505 MONTANA GRADE 3 MATHEMATICS CONTENT STANDARDS

(1) Mathematics operations and algebraic thinking content standards for Grade 3 are:

(a) interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each; for example, describe a context in which a total number of objects can be expressed as 5×7 ;

(b) interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each; for example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$;

(c) use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem;

(d) determine the unknown whole number in a multiplication or division equation relating three whole numbers; for example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = ? \div 3$, $6 \times 6 = ?$;

(e) apply properties of operations as strategies to multiply and divide; for example: if $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known (commutative property of multiplication); $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$ (associative property of multiplication); knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$ (distributive property);

(f) understand division as an unknown factor problem; for example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8;

(g) fluently multiply and divide within 100 using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations and by the end of Grade 3, know from memory all products of two one-digit numbers;

(h) solve two step word problems using the four operations within cultural contexts, including those of Montana American Indians; represent these problems using equations with a letter standing for the unknown quantity; and assess the reasonableness of answers using mental computation and estimation strategies including rounding; and

(i) identify arithmetic patterns (including patterns in the addition table or multiplication table) and explain them using properties of operations; for example, observe that four times a number is always even, and explain why four times a number can be decomposed into two equal addends.

(2) Mathematics number and operations in base ten content standards for Grade 3 are:

(a) use place value understanding to round whole numbers to the nearest 10 or 100;

(b) fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction; and

(c) multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.

(3) Mathematics number and operations fractions content standards for Grade 3 are:

(a) understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts and understand a fraction a/b as the quantity formed by a parts of size $1/b$;

(b) understand a fraction as a number on the number line and represent fractions on a number line diagram;

(i) represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts, recognize that each part has size $1/b$, and that the endpoint of the part based at 0 locates the number $1/b$ on the number line; and

(ii) represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0 and recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line;

(c) explain equivalence of fractions in special cases and compare fractions by reasoning about their size;

(i) understand two fractions as equivalent (equal) if they are the same size or the same point on a number line;

(ii) recognize and generate simple equivalent fractions, e.g., $1/2 = 2/4$, $4/6 = 2/3$ and explain why the fractions are equivalent, e.g., by using a visual fraction model;

(iii) express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers; for example: express 3 in the form $3 = 3/1$; recognize that $6/1 = 6$; and locate $4/4$ and 1 at the same point of a number line diagram; and

(iv) compare two fractions with the same numerator or the same denominator by reasoning about their size; recognize that comparisons are valid only when the two fractions refer to the same whole; record the results of comparisons with the symbols $>$, $=$, or $<$; and justify the conclusions, e.g., by using a visual fraction model.

(4) Mathematics measurement and data content standards for Grade 3 are:

(a) tell and write time to the nearest minute and measure time intervals in minutes and solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram;

(b) measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l) and add, subtract, multiply, or divide to solve one step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem;

(c) draw a scaled picture graph and a scaled bar graph to represent a data set with several categories, within cultural contexts including those of Montana American Indians; solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs; for example, draw a bar graph in which each square in the bar graph might represent five pets;

(d) generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch and show the data by making a line plot where the horizontal scale is marked off in appropriate units, i.e. whole numbers, halves, or quarters;

(e) recognize area as an attribute of plane figures and understand concepts of area measurement;

(i) a square with side length 1 unit, called "a unit square," is said to have "one square unit" of area and can be used to measure area; and

(ii) a plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units;

(f) measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units);

- (g) relate area to the operations of multiplication and addition;
- (i) find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths;
- (ii) multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems and represent whole-number products as rectangular areas in mathematical reasoning;
- (iii) use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$ and use area models to represent the distributive property in mathematical reasoning;
- (iv) recognize area as additive; find areas of rectilinear figures by decomposing them into nonoverlapping rectangles and adding the areas of the nonoverlapping parts; and apply this technique to solve real-world problems, including those of Montana American Indians; and
- (h) solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

(5) Mathematics geometry content standards for Grade 3 are:

- (a) understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides) and that the shared attributes can define a larger category (e.g., quadrilaterals); recognize rhombuses, rectangles, and squares as examples of quadrilaterals; and draw examples of quadrilaterals that do not belong to any of these subcategories; and
- (b) partition shapes into parts with equal areas; express the area of each part as a unit fraction of the whole; for example, partition a shape into four parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.506 MONTANA GRADE 4 MATHEMATICS CONTENT STANDARDS

- (1) Mathematics operations and algebraic thinking content standards for Grade 4 are:
 - (a) interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5 and represent verbal statements of multiplicative comparisons as multiplication equations;
 - (b) multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison;
 - (c) solve multistep word problems within cultural contexts, including those of Montana American Indians, with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted; represent these problems using equations with a letter standing for the unknown quantity; and assess the reasonableness of answers using mental computation and estimation strategies including rounding;

(d) find all factor pairs for a whole number in the range 1-100; recognize that a whole number is a multiple of each of its factors; determine whether a given whole number in the range 1-1000 is a multiple of a given one-digit number; and determine whether a given whole number in the range 1-100 is prime or composite; and

(e) generate number or shape patterns that follows a given rule; identify apparent features of the pattern that were not explicit in the rule itself; for example, given the rule "add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers; explain informally why the numbers will continue to alternate in this way.

(2) Mathematics number and operations in base ten content standards for Grade 4 are:

(a) recognize that in a multidigit whole number, a digit in one place represents ten times what it represents in the place to its right; for example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division;

(b) read and write multidigit whole numbers using base ten numerals, number names, and expanded form and compare two multidigit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons;

(c) use place value understanding to round multidigit whole numbers to any place;

(d) fluently add and subtract multidigit whole numbers using the standard algorithm;

(e) multiply a whole number of up to four digits by a one-digit whole number; multiply two two-digit numbers using strategies based on place value and the properties of operations; and illustrate and explain the calculation by using equations, rectangular arrays, and/or area models; and

(f) find whole number quotients and remainders with up to four-digit dividends and one-digit divisors using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division and illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

(3) Mathematics number and operations - fractions content standards for Grade 4 are:

(a) explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models with attention to how the number and size of the parts differ even though the two fractions themselves are the same size and use this principle to recognize and generate equivalent fractions;

(b) compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1/2$; recognize that comparisons are valid only when the two fractions refer to the same whole; record the results of comparisons with symbols $>$, $=$, or $<$; and justify the conclusions, e.g., by using a visual fraction model;

- (c) understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$;
- (i) understand addition and subtraction of fractions as joining and separating parts referring to the same whole;
- (ii) decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation; justify decompositions, e.g., by using a visual fraction model; for example: $3/8 = 1/8 + 1/8 + 1/8$; $3/8 = 1/8 + 2/8$; $2\ 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$;
- (iii) add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction; and
- (iv) solve word problems within cultural contexts, including those of Montana American Indians, involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem;
- (d) apply and extend previous understandings of multiplication to multiply a fraction by a whole number;
- (i) understand a fraction a/b as a multiple of $1/b$; for example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$;
- (ii) understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number; for example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$ (in general, $n \times (a/b) = (n \times a)/b$);
- (iii) solve word problems within cultural contexts, including those of Montana American Indians, involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem; for example, if each person at a party will eat $3/8$ of a pound of roast beef and there will be five people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie? As a contemporary American Indian example, for family/cultural gatherings, the Canadian and Montana Cree bake bannock made from flour, salt, grease, and baking soda, in addition to $3/4$ cup water per pan. When making four pans, how much water will be needed?;
- (e) express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100; for example, express $3/10$ as $30/100$, and add $3/10 + 4/100 = 34/100$;
- (f) use decimal notation for fractions with denominators 10 or 100; for example, rewrite 0.62 as $62/100$; describe a length as 0.62 meters; and locate 0.62 on a number line diagram;
- (g) compare two decimals to hundredths by reasoning about their size; recognize that comparisons are valid only when the two decimals refer to the same whole; record the results of comparisons with the symbols $>$, $=$, or $<$; and justify the conclusions, e.g., by using a visual model.

(4) Mathematics measurement and data content standards for Grade 4 are:

(a) know relative sizes of measurement units within one system of units including km, m, cm, kg, g, lb., oz., l, ml, hr, min., and sec.; within a single system of measurement, express measurements in a larger unit in terms of a smaller unit; record measurement equivalents in a two-column table; for example know that 1 ft is 12 times as long as 1 in.; express the length of a four ft snake as 48 in.; generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...;

(b) use the four operations to solve word problems within cultural contexts, including those of Montana American Indians, involving distances, intervals of time, liquid volumes, masses of objects, and money; including problems involving simple fractions or decimals and problems that require expressing measurements given in a larger unit in terms of a smaller unit, represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale;

(c) apply the area and perimeter formulas for rectangles in real-world and mathematical problems; for example, find the width of a rectangular room given the area of the flooring and the length by viewing the area formula as a multiplication equation with an unknown factor;

(d) make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$); solve problems involving addition and subtraction of fractions by using information presented in line plots; for example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect or arrow/spearhead collection;

(e) recognize angles as geometric shapes that are formed wherever two rays share a common endpoint and understand concepts of angle measurement:

(i) an angle is measured with reference to a circle with its center at the common endpoint of the rays; by considering the fraction of the circular arc between the points where the two rays intersect the circle, an angle that turns through $\frac{1}{360}$ of a circle is called a "one-degree angle" and can be used to measure angles; and

(ii) an angle that turns through n one-degree angles is said to have an angle measure of n degrees;

(f) measure angles in whole-number degrees using a protractor and sketch angles of specified measure;

(g) recognize angle measure as additive; when an angle is decomposed into nonoverlapping parts, the angle measure of the whole is the sum of the angle measures of the parts; solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems; e.g., by using an equation with a symbol for the unknown angle measure.

(5) Mathematics geometry content standards for Grade 4 are:

- (a) draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines and identify these in two-dimensional figures;
- (b) classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size; recognize right triangles as a category; and identify right triangles; and
- (c) recognize a line of symmetry for a two-dimensional figure, including those found in Montana American Indian designs, as a line across the figure such that the figure can be folded along the line into matching parts; identify line-symmetric figures; and draw lines of symmetry. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.507 MONTANA GRADE 5 MATHEMATICS CONTENT STANDARDS

(1) Mathematics operations and algebraic thinking content standards for Grade 5 are:

- (a) use parentheses, brackets, or braces in numerical expressions and evaluate expressions with these symbols;
- (b) write simple expressions that record calculations with numbers and interpret numerical expressions without evaluating them; for example, express the calculation "add 8 and 7, then multiply by 2" as $2 \times (8 + 7)$; recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product; and
- (c) generate two numerical patterns using two given rules; identify apparent relationships between corresponding terms; form ordered pairs consisting of corresponding terms from the two patterns and graph the ordered pairs on a coordinate plane; for example, given the rule "add 3" and the starting number 0, and given the rule "add 6" and the starting number 0, generate terms in the resulting sequences and observe that the terms in one sequence are twice the corresponding terms in the other sequence; and explain informally why this is so.

(2) Mathematics number and operations in base ten content standards for Grade 5 are:

- (a) recognize that in a multidigit number, a digit in one place represents 10 times as much as it represents in the place to its right and $1/10$ of what it represents in the place to its left;
- (b) explain patterns in the number of zeros of the product when multiplying a number by powers of 10; explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10; and use whole-number exponents to denote powers of 10;
- (c) read, write, and compare decimals to thousandths;
 - (i) read and write decimals to thousandths using base ten numerals, number names, and expanded form, e.g. $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$; and
 - (ii) compare two decimals to thousandths based on meanings of the digits in each place using $>$, $=$, and $<$ symbols to record the results of comparisons;

- (d) use place value understandings to round decimals to any place;
 - (e) fluently multiply multidigit whole numbers using the standard algorithm;
 - (f) find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division and illustrate and explain the calculation by using equations, rectangular arrays, and/or area models; and
 - (g) add, subtract, multiply, and divide decimals to hundredths using concrete models or drawings within cultural contexts, including those of Montana American Indians, and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method; and explain the reasoning used.
- (3) Mathematics number and operations – fractions content standards for Grade 5 are:
- (a) add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators; for example, $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$ (in general, $\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}$);
 - (b) solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem; use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers; for example, recognize an incorrect result $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$, by observing that $\frac{3}{7} < \frac{1}{2}$;
 - (c) interpret a fraction as division of the numerator by the denominator ($\frac{a}{b} = a \div b$); solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem; for example, interpret $\frac{3}{4}$ as the result of dividing 3 by 4, noting that $\frac{3}{4}$ multiplied by 4 equals 3 and that when 3 wholes are shared equally among 4 people each person has a share of size $\frac{3}{4}$; if 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?;
 - (d) apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction;
 - (i) interpret the product $(\frac{a}{b}) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$; for example, use a visual fraction model to show $(\frac{2}{3}) \times 4 = \frac{8}{3}$, and create a story context for this equation within cultural contexts, including those of Montana American Indians; and do the same with $(\frac{2}{3}) \times (\frac{4}{5}) = \frac{8}{15}$ (in general, $(\frac{a}{b}) \times (\frac{c}{d}) = \frac{ac}{bd}$);
 - (ii) find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths; show that the area is the same as would be found by multiplying the side lengths; multiply fractional side lengths to find areas of rectangles; and represent fraction products as rectangular areas;

- (e) interpret multiplication as scaling (resizing), by:
 - (i) comparing the size of a product to the size of one factor on the basis of the size of the other factor without performing the indicated multiplication; and
 - (ii) explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1;
- (f) solve real-world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem within cultural contexts, including those of Montana American Indians;
- (g) apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions;
 - (i) interpret division of a unit fraction by a nonzero whole number and compute such quotients; for example, create a story context within cultural contexts, including those of Montana American Indians, for $(1/3) \div 4$, and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$;
 - (ii) interpret division of a whole number by a unit fraction and compute such quotients; for example, create a story context within cultural contexts, including those of Montana American Indians, for $4 \div (1/5)$, and use a visual fraction model to show the quotient; and use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$; and
 - (iii) solve real-world problems involving division of unit fractions by nonzero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem; for example, how much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $1/3$ -cup servings are in 2 cups of raisins?.
- (4) Mathematics measurement and data content standards for Grade 5 are:
 - (a) convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m) and use these conversions in solving multistep, real-world problems within a cultural context, including those of Montana American Indians;
 - (b) make a line plot to display a data set of measurements in fractions of a unit ($1/2, 1/4, 1/8$); use operations on fractions for this grade to solve problems involving information presented in line plots; for example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally;
 - (c) recognize volume as an attribute of solid figures and understand concepts of volume measurement;
 - (i) a cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume and can be used to measure volume; and
 - (ii) a solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units;

- (d) measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units;
- (e) relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume within cultural contexts, including those of Montana American Indians;
 - (i) find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base; and represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication;
 - (ii) apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems; and
 - (iii) recognize volume as additive and find volumes of solid figures composed of two nonoverlapping right rectangular prisms by adding the volumes of the nonoverlapping parts, applying this technique to solve real-world problems.
- (5) Mathematics geometry content standards for Grade 5 are:
 - (a) use a pair of perpendicular number lines, called axes, to define a coordinate system with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates; understand that the first number indicates how far to travel from the origin in the direction of one axis and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate);
 - (b) represent real-world and mathematical problems by graphing points in the first quadrant of the coordinate plane and interpret coordinate values of points in the context of the situation, including those found in Montana American Indian designs;
 - (c) understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category; for example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles; and
 - (d) classify two-dimensional figures in a hierarchy based on properties.
 (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.508 MONTANA GRADE 6 MATHEMATICS CONTENT STANDARDS

- (1) Mathematics ratios and proportional relationship content standards for Grade 6 are:
 - (a) understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities; for example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."

(b) understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship; for example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar." "We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger."

(c) use ratio and rate reasoning to solve real-world and mathematical problems from a variety of cultural contexts, including those of Montana American Indians, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations;

(i) make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, plot the pairs of values on the coordinate plane, and use tables to compare ratios;

(ii) solve unit rate problems including those involving unit pricing and constant speed; for example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed? As a contemporary American Indian example, it takes at least 16 hours to bead a Crow floral design on moccasins for two children. How many pairs of moccasins can be completed in 72 hours?;

(iii) find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means $30/100$ times the quantity) and solve problems involving finding the whole, given a part and the percent;

(iv) use ratio reasoning to convert measurement units and manipulate and transform units appropriately when multiplying or dividing quantities.

(2) Mathematics number system content standards for Grade 6 are:

(a) interpret and compute quotients of fractions and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem; for example, create a story context for $(2/3) \div (3/4)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(2/3) \div (3/4) = 8/9$ because $3/4$ of $8/9$ is $2/3$. (In general, $(a/b) \div (c/d) = ad/bc$.) How much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $3/4$ -cup servings are in $2/3$ of a cup of yogurt? How wide is a rectangular strip of land with length $3/4$ mi and area $1/2$ square mi?;

(b) fluently divide multidigit numbers using the standard algorithm;

(c) fluently add, subtract, multiply, and divide multidigit decimals using the standard algorithm for each operation;

(d) find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12; use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor; for example, express $36 + 8$ as $4(9 + 2)$;

(e) understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge) and use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation;

(f) understand a rational number as a point on the number line and extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates;

(i) recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3) = 3$; and that 0 is its own opposite;

(ii) understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane and recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes; and

(iii) find and position integers and other rational numbers on a horizontal or vertical number line diagram and find and position pairs of integers and other rational numbers on a coordinate plane;

(g) understand ordering and absolute value of rational numbers;

(i) interpret statements of inequality as statements about the relative position of two numbers on a number line diagram; for example, interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right;

(ii) write, interpret, and explain statements of order for rational numbers in real-world contexts; for example, write $-3^{\circ}\text{C} > -7^{\circ}\text{C}$ to express the fact that -3°C is warmer than -7°C ;

(iii) understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation; for example, for an account balance of -30 dollars, write $|-30| = 30$ to describe the size of the debt in dollars; and

(iv) distinguish comparisons of absolute value from statements about order; for example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars;

(h) solve real-world and mathematical problems from a variety of cultural contexts, including those of Montana American Indians, by graphing points in all four quadrants of the coordinate plane and include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.

- (3) Mathematics expressions and equations content standards for Grade 6 are:
- (a) write and evaluate numerical expressions involving whole-number exponents;
 - (b) write, read, and evaluate expressions in which letters stand for numbers;
 - (i) write expressions that record operations with numbers and with letters standing for numbers; for example, express the calculation "subtract y from 5" as $5 - y$;
 - (ii) identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity; for example, describe the expression $2(8 + 7)$ as a product of two factors; and view $(8 + 7)$ as both a single entity and a sum of two terms; and
 - (iii) evaluate expressions at specific values of their variables; include expressions that arise from formulas used in real-world problems; perform arithmetic operations, including those involving whole-number exponents in the conventional order when there are no parentheses to specify a particular order (order of operations); for example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$;
 - (c) apply the properties of operations to generate equivalent expressions; for example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; and apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$;
 - (d) identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them); for example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for;
 - (e) understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true;
 - (f) use variables to represent numbers and write expressions when solving a real-world or mathematical problem and understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set;
 - (g) solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q , and x are all nonnegative rational numbers;
 - (h) write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem; recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; and represent solutions of such inequalities on number line diagrams; and

(i) use variables to represent two quantities in a real-world problem from a variety of cultural contexts, including those of Montana American Indians, that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable; analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation; for example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times and write the equation $d = 65t$ to represent the relationship between distance and time.

(4) Mathematics geometry content standards for Grade 6 are:

(a) find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems within cultural contexts, including those of Montana American Indians; for example, use Montana American Indian designs to decompose shapes and find the area;

(b) find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths and show that the volume is the same as would be found by multiplying the edge lengths of the prism and apply the formulas $V = lwh$ and $V = bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems;

(c) draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate; and apply these techniques in the context of solving real-world and mathematical problems; and

(d) represent three-dimensional figures using nets made up of rectangles and triangles and use the nets to find the surface area of these figures and apply these techniques in the context of solving real-world and mathematical problems within cultural contexts, including those of Montana American Indians.

(5) Mathematics statistics and probability content standards for Grade 6 are:

(a) recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers; for example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages;

(b) understand that a set of data collected (including Montana American Indian demographic data) to answer a statistical question has a distribution which can be described by its center, spread, and overall shape;

(c) recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number;

(d) display numerical data in plots on a number line, including dot plots, histograms, and box plots; and

- (e) summarize numerical data sets in relation to their context, such as by:
 - (i) reporting the number of observations;
 - (ii) describing the nature of the attribute under investigation, including how it was measured and its units of measurement;
 - (iii) giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered; and
 - (iv) relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.509 MONTANA GRADE 7 MATHEMATICS CONTENT STANDARDS

(1) Mathematics ratios and proportional relationship content standards for Grade 7 are:

(a) compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units; for example, if a person walks $\frac{1}{2}$ mile in each $\frac{1}{4}$ hour, compute the unit rate as the complex fraction $\frac{1}{2} / \frac{1}{4}$ miles per hour, equivalently 2 miles per hour;

(b) recognize and represent proportional relationships between quantities, including those represented in Montana American Indian cultural contexts;

(i) decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin;

(ii) identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships;

(iii) represent proportional relationships by equations; for example, if total cost t is proportional to the number n of items purchased at a constant price p , the relationship between the total cost and the number of items can be expressed as $t = pn$; as a contemporary American Indian example, analyze cost of beading materials; cost of cooking ingredients for family gatherings, community celebrations, etc.; and

(iv) explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where r is the unit rate;

(c) use proportional relationships to solve multistep ratio and percent problems within cultural contexts, including those of Montana American Indians (e.g., percent of increase and decrease of tribal land); for example: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.

(2) Mathematics number system content standards for Grade 7 are:

(a) apply and extend previous understandings of addition and subtraction to add and subtract rational numbers and represent addition and subtraction on a horizontal or vertical number line diagram;

(i) describe situations in which opposite quantities combine to make 0; for example, a hydrogen atom has 0 charge because its two constituents are oppositely charged;

(ii) understand $p + q$ as the number located a distance $|q|$ from p , in the positive or negative direction depending on whether q is positive or negative; show that a number and its opposite have a sum of 0 (are additive inverses); and interpret sums of rational numbers by describing real-world contexts;

(iii) understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$; show that the distance between two rational numbers on the number line is the absolute value of their difference; and apply this principle in real-world contexts; and

(iv) apply properties of operations as strategies to add and subtract rational numbers;

(b) apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers;

(i) understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers; and interpret products of rational numbers by describing real-world contexts;

(ii) understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with nonzero divisor) is a rational number, i.e. if p and q are integers, then $-(p/q) = (-p)/q = p/(-q)$; and interpret quotients of rational numbers by describing real-world contexts;

(iii) apply properties of operations as strategies to multiply and divide rational numbers; and

(iv) convert a rational number to a decimal using long division; and know that the decimal form of a rational number terminates in 0s or eventually repeats;

(c) solve real-world and mathematical problems from a variety of cultural contexts, including those of Montana American Indians, involving the four operations with rational numbers.

(3) Mathematics expressions and equations content standards for Grade 7 are:

(a) apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients;

(b) understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related; for example, $a + 0.05a = 1.05a$ means that "increase by 5%" is the same as "multiply by 1.05;"

(c) solve multistep real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically; apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies; for example: if a woman making \$25 an hour gets a 10% raise, she will make an additional $\frac{1}{10}$ of her salary an hour, or \$2.50, for a new salary of \$27.50 and if you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation; and

(d) use variables to represent quantities in a real-world or mathematical problems, including those represented in Montana American Indian cultural contexts, and construct simple equations and inequalities to solve problems by reasoning about the quantities;

(i) solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p , q , and r are specific rational numbers; solve equations of these forms fluently; compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach; for example, the perimeter of a rectangle is 54 cm. and its length is 6 cm. What is its width?; and

(ii) solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p , q , and r are specific rational numbers; graph the solution set of the inequality and interpret it in the context of the problem; for example: as a salesperson, you are paid \$50 per week plus \$3 per sale; this week you want your pay to be at least \$100; write an inequality for the number of sales you need to make and describe the solutions.

(4) Mathematics geometry content standards for Grade 7 are:

(a) solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale;

(b) draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions; focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle;

(c) describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids;

(d) know the formulas for the area and circumference of a circle and use them to solve problems from a variety of cultural contexts, including those of Montana American Indians and give an informal derivation of the relationship between the circumference and area of a circle;

(e) use facts about supplementary, complementary, vertical, and adjacent angles in a multistep problem to write and solve simple equations for an unknown angle in a figure; and

(f) solve real-world and mathematical problems from a variety of cultural contexts, including those of Montana American Indians, involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

(5) Mathematics statistics and probability content standards for Grade 7 are:

(a) understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population; and understand that random sampling tends to produce representative samples and support valid inferences;

(b) use data, including Montana American Indian demographics data, from a random sample to draw inferences about a population with an unknown characteristic of interest; generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions; for example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data; predict how many text messages your classmates receive in a day and gauge how far off the estimate or prediction might be;

(c) informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability; for example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable;

(d) use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations; for example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book;

(e) understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring; larger numbers indicate greater likelihood; a probability near 0 indicates an unlikely event; a probability around $1/2$ indicates an event that is neither unlikely nor likely; and a probability near 1 indicates a likely event;

(f) approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency and predict the approximate relative frequency given the probability; for example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times and when playing Montana American Indian hand/stick games, you can predict the approximate number of accurate guesses;

(g) develop a probability model and use it to find probabilities of events; compare probabilities from a model to observed frequencies; and if the agreement is not good, explain possible sources of the discrepancy;

(i) develop a uniform probability model by assigning equal probability to all outcomes and use the model to determine probabilities of events; for example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected; and

(ii) develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process; for example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down; do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?;

(h) find probabilities of compound events using organized lists, tables, tree diagrams, and simulation;

(i) understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs;

(ii) represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams; for an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes in the sample space which compose the event; and

(iii) design and use a simulation to generate frequencies for compound events; for example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.510 MONTANA GRADE 8 MATHEMATICS CONTENT STANDARDS

(1) Mathematics number system content standards for Grade 8 are:

(a) understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually; and convert a decimal expansion which repeats eventually into a rational number; and

(b) use rational approximations of irrational numbers to compare the size of irrational numbers; locate them approximately on a number line diagram; and estimate the value of expressions (e.g., π^2); for example, by truncating the decimal expansion of $\sqrt{2}$, show that $\sqrt{2}$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.

(2) Mathematics expressions and equations content standards for Grade 8 are:

(a) know and apply the properties of integer exponents to generate equivalent numerical expressions; for example, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$;

(b) use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number; evaluate square roots of small perfect squares and cube roots of small perfect cubes; and know that $\sqrt{2}$ is irrational;

(c) use numbers expressed in the form of a single digit times a whole-number power of 10 to estimate very large or very small quantities and to express how many times as much one is than the other; for example, estimate the population of the United States as 3 times 10^8 and the population of the world as 7 times 10^9 and determine that the world population is more than 20 times larger;

(d) perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used; use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading); and interpret scientific notation that has been generated by technology;

(e) graph proportional relationships, interpreting the unit rate as the slope of the graph; compare two different proportional relationships represented in different ways; for example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed;

(f) use similar triangles to explain why the slope m is the same between any two distinct points on a nonvertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b ;

(g) solve linear equations in one variable;

(i) give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions and show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers);

(ii) solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms; and

(h) analyze and solve pairs of simultaneous linear equations;

(i) understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously;

(ii) solve systems of two linear equations in two variables algebraically and estimate solutions by graphing the equations; solve simple cases by inspection; for example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6; and

(iii) solve real-world and mathematical problems from a variety of cultural contexts, including those of Montana American Indians, leading to two linear equations in two variables; for example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.

(3) Mathematics functions content standards for Grade 8 are:

(a) understand that a function is a rule that assigns to each input exactly one output and the graph of a function is the set of ordered pairs consisting of an input and the corresponding output;

- (b) compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions); for example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change;
- (c) interpret the equation $y = mx + b$ as defining a linear function whose graph is a straight line; give examples of functions that are not linear; for example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4), and (3,9), which are not on a straight line;
- (d) construct a function to model a linear relationship between two quantities; determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph; and interpret the rate of change and initial value of a linear function in terms of the situation it models and in terms of its graph or a table of values;
- (e) describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear) and sketch a graph that exhibits the qualitative features of a function that has been described verbally.
- (4) Mathematics geometry content standards for Grade 8 are:
- (a) verify experimentally the properties of rotations, reflections, and translations from a variety of cultural contexts, including those of Montana American Indians:
- (i) lines are taken to lines and line segments to line segments of the same length;
- (ii) angles are taken to angles of the same measure; and
- (iii) parallel lines are taken to parallel lines;
- (b) understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations and given two congruent figures, describe a sequence that exhibits the congruence between them;
- (c) describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures from a variety of cultural contexts, including those of Montana American Indians, using coordinates;
- (d) understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations and given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them;
- (e) use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles; for example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line and give an argument in terms of transversals why this is so;
- (f) explain a proof of the Pythagorean Theorem and its converse;

(g) apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions; for example, determine the unknown height of a Plains Indian tipi when given the side length and radius;

(h) apply the Pythagorean Theorem to find the distance between two points in a coordinate system; and

(i) know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.

(5) Mathematics statistics and probability content standards for Grade 8 are:

(a) construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities and describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association;

(b) know that straight lines are widely used to model relationships between two quantitative variables and for scatter plots that suggest a linear association, informally fit a straight line and informally assess the model fit by judging the closeness of the data points to the line;

(c) use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept; for example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height;

(d) understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table; construct and interpret a two-way table summarizing data including data from Montana American Indian sources on two categorical variables collected from the same subjects; use relative frequencies calculated for rows or columns to describe possible association between the two variables; for example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores? (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.511 SYMBOLS (1) The symbol "+" denotes science, technology, engineering, mathematics (STEM) standards that students should learn in order to take advanced courses such as calculus, advanced statistics, or discrete mathematics.

(2) The symbol "*" denotes specific modeling standards appearing throughout the high school mathematics standards. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.512 MONTANA HIGH SCHOOL MATHEMATICS NUMBER AND QUANTITY STANDARDS (1) Mathematics number and quantity: the real number system content standards for high school are:

(a) explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents; for example, we define $5^{1/3}$ to be the cube root of 5 because we want $(5^{1/3})^3 = 5^{(1/3)3}$ to hold, so $(5^{1/3})^3$ must equal 5;

(b) rewrite expressions involving radicals and rational exponents using the properties of exponents; and

(c) explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.

(2) Mathematics number and quantity: quantities content standards for high school are:

(a) use units as a way to understand problems from a variety of contexts (e.g., science, history, and culture), including those of Montana American Indians, and to guide the solution of multistep problems; choose and interpret units consistently in formulas; and choose and interpret the scale and the origin in graphs and data displays;

(b) define appropriate quantities for the purpose of descriptive modeling; and

(c) choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

(3) Mathematics number and quantity: the complex number system content standards for high school are:

(a) know there is a complex number i such that $i^2 = -1$ and every complex number has the form $a + bi$ with a and b real;

(b) use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers;

(c) (+) find the conjugate of a complex number and use conjugates to find moduli and quotients of complex numbers;

(d) (+) represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers) and explain why the rectangular and polar forms of a given complex number represent the same number;

(e) (+) represent addition, subtraction, multiplication, and conjugation of complex numbers geometrically on the complex plane; use properties of this representation for computation; for example, $(-1 + \sqrt{3}i)^3 = 8$ because $(-1 + \sqrt{3}i)$ has modulus 2 and argument 120° ;

(f) (+) calculate the distance between numbers in the complex plane as the modulus of the difference and the midpoint of a segment as the average of the numbers at its endpoints;

(g) solve quadratic equations with real coefficients that have complex solutions;

(h) (+) extend polynomial identities to the complex numbers and for example, rewrite $x^2 + 4$ as $(x + 2i)(x - 2i)$; and

(i) (+) know the Fundamental Theorem of Algebra and show that it is true for quadratic polynomials.

(4) Mathematics number and quantity: vector and matrix quantities content standards for high school are:

(a) (+) recognize vector quantities as having both magnitude and direction; represent vector quantities by directed line segments; and use appropriate symbols for vectors and their magnitudes (e.g., v , $|v|$, $\|v\|$, v);

(b) (+) find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point;

(c) (+) solve problems from a variety of contexts (e.g., science, history, and culture), including those of Montana American Indians, involving velocity and other quantities that can be represented by vectors;

(d) (+) add and subtract vectors;

(i) add vectors end-to-end, component-wise, and by the parallelogram rule and understand that the magnitude of a sum of two vectors is typically not the sum of the magnitudes;

(ii) given two vectors in magnitude and direction form, determine the magnitude and direction of their sum; and

(iii) understand vector subtraction $v - w$ as $v + (-w)$ where $-w$ is the additive inverse of w , with the same magnitude as w and pointing in the opposite direction and represent vector subtraction graphically by connecting the tips in the appropriate order and perform vector subtraction component-wise;

(e) (+) multiply a vector by a scalar;

(i) represent scalar multiplication graphically by scaling vectors and possibly reversing their direction and perform scalar multiplication component-wise, e.g., as $c(v_x, v_y) = (cv_x, cv_y)$; and

(ii) compute the magnitude of a scalar multiple cv using $\|cv\| = |c|v$ and compute the direction of cv knowing that when $|c|v \neq 0$, the direction of cv is either along v (for $c > 0$) or against v (for $c < 0$);

(f) (+) use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network;

(g) (+) multiply matrices by scalars to produce new matrices, e.g., as when all of the payoffs in a game are doubled;

(h) (+) add, subtract, and multiply matrices of appropriate dimensions;

(i) (+) understand that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties;

(j) (+) understand that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers and the determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse;

(k) (+) multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector and work with matrices as transformations of vectors; and

(l) (+) work with 2×2 matrices as transformations of the plane and interpret the absolute value of the determinant in terms of area. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.513 MONTANA HIGH SCHOOL MATHEMATICS ALGEBRA

CONTENT STANDARDS (1) Mathematics algebra: seeing structure in expressions content standards for high school are:

- (a) interpret expressions that represent a quantity in terms of its context;*
- (i) interpret parts of an expression, such as terms, factors, and coefficients; and
- (ii) interpret complicated expressions by viewing one or more of their parts as a single entity; for example, interpret $P(1+r)^n$ as the product of P and a factor not depending on P ;
- (b) use the structure of an expression to identify ways to rewrite it; for example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$;
- (c) choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression;*
- (i) factor a quadratic expression to reveal the zeros of the function it defines;
- (ii) complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines; and
- (iii) use the properties of exponents to transform expressions for exponential functions; for example the expression 1.15^t can be rewritten as $(1.15^{1/12})^{12t} \approx 1.012^{12t}$ to reveal the approximate equivalent monthly interest rate if the annual rate is 15%;
- (d) derive the formula for the sum of a finite geometric series (when the common ratio is not 1) and use the formula to solve problems; for example, calculate mortgage payments.*

(2) Mathematics algebra: arithmetic with polynomials and rational expressions content standards for high school are:

- (a) understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication and add, subtract, and multiply polynomials;
- (b) know and apply the Remainder Theorem: for a polynomial $p(x)$ and a number a , the remainder on division by $x - a$ is $p(a)$, so $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$;
- (c) identify zeros of polynomials when suitable factorizations are available and use the zeros to construct a rough graph of the function defined by the polynomial;
- (d) prove polynomial identities and use them to describe numerical relationships; for example, the polynomial identity $(x^2 + y^2)^2 = (x^2 - y^2)^2 + (2xy)^2$ can be used to generate Pythagorean triples;
- (e) (+) know and apply the Binomial Theorem for the expansion of $(x + y)^n$ in powers of x and y for a positive integer n , where x and y are any numbers, with coefficients determined for example by Pascal's Triangle;
- (f) rewrite simple rational expressions in different forms; write $a(x)/b(x)$ in the form $q(x) + r(x)/b(x)$, where $a(x)$, $b(x)$, $q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$, using inspection, long division, or, for the more complicated examples, a computer algebra system; and

(g) (+) understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression and add, subtract, multiply, and divide rational expressions.

(3) Mathematics algebra: creating equations content standards for high school are:

(a) create equations and inequalities in one variable and use them to solve problems from a variety of contexts (e.g., science, history, and culture, including those of Montana American Indians) and include equations arising from linear and quadratic functions, and simple rational and exponential functions;

(b) create equations in two or more variables to represent relationships between quantities and graph equations on coordinate axes with labels and scales;

(c) represent constraints by equations or inequalities and by systems of equations and/or inequalities and interpret solutions as viable or nonviable options in a modeling context; for example, represent inequalities describing nutritional and cost constraints on combinations of different foods; and

(d) rearrange formulas to highlight a quantity of interest using the same reasoning as in solving equations; for example, rearrange Ohm's law $V = IR$ to highlight resistance R .

(4) Mathematics algebra: reasoning with equations and inequalities content standards for high school are:

(a) explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution and construct a viable argument to justify a solution method;

(b) solve simple rational and radical equations in one variable and give examples showing how extraneous solutions may arise;

(c) solve linear equations and inequalities in one variable, including equations with coefficients represented by letters;

(d) solve quadratic equations in one variable;

(i) use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions and derive the quadratic formula from this form; and

(ii) solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation and recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b ;

(e) prove that given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions;

(f) solve systems of linear equations exactly and approximately (e.g., with graphs) focusing on pairs of linear equations in two variables;

(g) solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically; for example, find the points of intersection between the line $y = -3x$ and the circle $x^2 + y^2 = 3$;

(h) (+) represent a system of linear equations as a single matrix equation in a vector variable;

(i) (+) find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension 3×3 or greater);

(j) understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line);

(k) explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values or find successive approximations and include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions;* and

(l) graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality) and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.514 MONTANA HIGH SCHOOL MATHEMATICS FUNCTIONS

STANDARDS (1) Mathematics functions: interpreting functions content standards for high school are:

(a) understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range; if f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x ; and the graph of f is the graph of the equation $y = f(x)$;

(b) use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context;

(c) recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers; for example, the Fibonacci sequence is defined recursively by $f(0) = f(1) = 1$, $f(n+1) = f(n) + f(n-1)$ for $n \geq 1$;

(d) for a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities and sketch graphs showing key features given a verbal description of the relationship; key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity;*

(e) relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes; for example, if the function $h(n)$ gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function;*

(f) calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval and estimate the rate of change from a graph;*

- (g) graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases;*
 - (i) graph linear and quadratic functions and show intercepts, maxima, and minima;
 - (ii) graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions;
 - (iii) graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior;
 - (iv) (+) graph rational functions, identifying zeros and asymptotes when suitable factorizations are available and showing end behavior; and
 - (v) graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude;
 - (h) write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function;
 - (i) use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph and interpret these in terms of a context; and
 - (ii) use the properties of exponents to interpret expressions for exponential functions; for example, identify percent rate of change in functions such as $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.01)^{12t}$, $y = (1.2)^{t/10}$ and classify them as representing exponential growth or decay; and
 - (i) compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions); for example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.
- (2) Mathematics functions: building functions content standards for high school are:
- (a) write a function that describes a relationship between two quantities;*
 - (i) determine an explicit expression, a recursive process, or steps for calculation from a context;
 - (ii) combine standard function types using arithmetic operations; for example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential and relate these functions to the model; and
 - (iii) (+) compose functions; for example, if $T(y)$ is the temperature in the atmosphere as a function of height and $h(t)$ is the height of a weather balloon as a function of time, then $T(h(t))$ is the temperature at the location of the weather balloon as a function of time;
 - (b) write arithmetic and geometric sequences both recursively and with an explicit formula; use them to model situations from a variety of contexts (e.g., science, history, and culture, including those of the Montana American Indian); and translate between the two forms;*
 - (c) identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs; experiment with cases and illustrate an explanation of the effects on the graph using technology; and include recognizing even and odd functions from their graphs and algebraic expressions for them;

- (d) find inverse functions;
 - (i) solve an equation of the form $f(x) = c$ for a simple function f that has an inverse and write an expression for the inverse; for example, $f(x) = 2x^3$ or $f(x) = (x+1)/(x-1)$ for $x \neq 1$;
 - (ii) (+) verify by composition that one function is the inverse of another;
 - (iii) (+) read values of an inverse function from a graph or a table, given that the function has an inverse; and
 - (iv) (+) produce an invertible function from a noninvertible function by restricting the domain;
- (e) (+) understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents.
 - (3) Mathematics functions: linear, quadratic, and exponential models content standards for high school are:
 - (a) distinguish between situations that can be modeled with linear functions and with exponential functions;
 - (i) prove that linear functions grow by equal differences over equal intervals and that exponential functions grow by equal factors over equal intervals;
 - (ii) recognize situations in which one quantity changes at a constant rate per unit interval relative to another; and
 - (iii) recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another;
 - (b) construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table);
 - (c) observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function;
 - (d) for exponential models, express as a logarithm the solution to $ab^{ct} = d$ where a , c , and d are numbers and the base b is 2, 10, or e and evaluate the logarithm using technology; and
 - (e) interpret the parameters in a linear or exponential function in terms of a context.
 - (4) Mathematics functions: trigonometric functions content standards for high school are:
 - (a) understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle;
 - (b) explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle;
 - (c) (+) use special triangles to determine geometrically the values of sine, cosine, tangent for $\pi/3$, $\pi/4$ and $\pi/6$ and use the unit circle to express the values of sine, cosines, and tangent for x , $\pi + x$, and $2\pi - x$ in terms of their values for x , where x is any real number;

(d) (+) use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions;

(e) choose trigonometric functions to model periodic phenomena from a variety of contexts (e.g. science, history, and culture, including those of the Montana American Indian) with specified amplitude, frequency, and midline;*

(f) (+) understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed;

(g) (+) use inverse functions to solve trigonometric equations that arise in modeling contexts; evaluate the solutions using technology; and interpret them in terms of the context;*

(h) prove the Pythagorean identity $\sin^2(\theta) + \cos^2(\theta) = 1$ and use it to calculate trigonometric ratios; and

(i) (+) prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.515 MONTANA HIGH SCHOOL MATHEMATICS MODELING CONTENT STANDARDS (1) Mathematics modeling content standards for high school are best interpreted in relation to other standards. Specific standards for modeling are indicated by a "*" symbol and appear throughout the high school standards. (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.516 MONTANA HIGH SCHOOL MATHEMATICS GEOMETRY CONTENT STANDARDS (1) Mathematics geometry: congruence content standards for high school are:

(a) know precise definitions of angle, circle, perpendicular line, parallel line, and line segment based on the undefined notions of point, line, distance along a line, and distance around a circular arc;

(b) represent transformations in the plane using transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs; and compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch);

(c) given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself;

(d) develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments;

(e) given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software and specify a sequence of transformations that will carry a given figure onto another;

(f) use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure and given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent;

(g) use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent;

(h) explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions;

(i) prove theorems about lines and angles; theorems include: vertical angles are congruent, when a transversal crosses parallel lines, alternate interior angles are congruent, corresponding angles are congruent, and points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints;

(j) prove theorems about triangles; theorems include: measures of interior angles of a triangle sum to 180° , base angles of isosceles triangles are congruent, the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length, and the medians of a triangle meet at a point;

(k) prove theorems about parallelograms; theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals;

(l) make formal geometric constructions, including those representing Montana American Indians, with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.); copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line; and

(m) construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

(2) Mathematics geometry: similarity, right triangles, and trigonometry content standards for high school are:

(a) verify experimentally the properties of dilations given by a center and a scale factor:

(i) a dilation takes a line not passing through the center of the dilation to a parallel line and leaves a line passing through the center unchanged; and

(ii) the dilation of a line segment is longer or shorter in the ratio given by the scale factor;

(b) given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar and explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides;

(c) use the properties of similarity transformations to establish the AA criterion for two triangles to be similar;

(d) prove theorems about triangles; theorems include: a line parallel to one side of a triangle divides the other two proportionally and, conversely, the Pythagorean Theorem proved using triangle similarity;

(e) use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures;

(f) understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles;

(g) explain and use the relationship between the sine and cosine of complementary angles;

(h) use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems;

(i) (+) derive the formula $A = \frac{1}{2} ab \sin(C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side;

(j) (+) prove the Laws of Sines and Cosines and use them to solve problems; and

(k) (+) understand and apply the Laws of Sines and Cosines to find unknown measurements in right and nonright triangles (e.g., surveying problems, resultant forces).

(3) Mathematics geometry: circles content standards for high school are:

(a) prove that all circles are similar;

(b) identify and describe relationships among inscribed angles, radii, and chords; include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; and the radius of a circle is perpendicular to the tangent where the radius intersects the circle;

(c) construct the inscribed and circumscribed circles of a triangle and prove properties of angles for a quadrilateral inscribed in a circle;

(d) (+) construct a tangent line from a point outside a given circle to the circle; and

(e) derive, using similarity, the fact that the length of the arc intercepted by an angle is proportional to the radius; define the radian measure of the angle as the constant of proportionality; and derive the formula for the area of a sector.

(4) Mathematics geometry: expressing geometric properties with equations content standards for high school are:

(a) derive the equation of a circle of given center and radius using the Pythagorean Theorem and complete the square to find the center and radius of a circle given by an equation;

(b) derive the equation of a parabola given a focus and directrix;

(c) (+) derive the equations of ellipses and hyperbolas given the foci and directrices;

(d) use coordinates to prove simple geometric theorems algebraically; for example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle and prove or disprove that the point $(1, \sqrt{3})$ lies on the circle centered at the origin and containing the point $(0, 2)$;

(e) prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point);

- (f) find the point on a directed line segment between two given points that partitions the segment in a given ratio; and
 - (g) use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.*
- (5) Mathematics geometry: geometric measurement and dimension content standards for high school are:
- (a) give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone and use dissection arguments, Cavalieri's principle, and informal limit arguments;
 - (b) (+) give an informal argument using Cavalieri's principle for the formulas for the volume of a sphere and other solid figures;
 - (c) use volume formulas for cylinders, pyramids, cones, and spheres to solve problems;* and
 - (d) identify the shapes of two-dimensional cross-sections of three-dimensional objects and identify three-dimensional objects generated by rotations of two-dimensional objects.
- (6) Mathematics Geometry: modeling with geometry content standards for high school are:
- (a) use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder; modeling a Montana American Indian tipi as a cone);*
 - (b) apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot);* and
 - (c) apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).* (History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

10.53.517 MONTANA HIGH SCHOOL MATHEMATICS STATISTICS AND PROBABILITY STANDARDS (1) Mathematics statistics and probability: interpreting categorical and quantitative data content standards for high school are:

- (a) represent data with plots on the real number line (dot plots, histograms, and box plots);
- (b) use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets;
- (c) interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers);
- (d) use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages; recognize that there are data sets for which such a procedure is not appropriate; and use calculators, spreadsheets, tables, and Montana American Indian data sources to estimate areas under the normal curve;
- (e) summarize categorical data for two categories in two-way frequency tables; interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies); and recognize possible associations and trends in the data;

(f) represent data on two quantitative variables on a scatter plot and describe how the variables are related;

(i) fit a function to the data; use functions fitted to data to solve problems in the context of the data; use given functions or choose a function suggested by the context; and emphasize linear, quadratic, and exponential models;

(ii) informally assess the fit of a function by plotting and analyzing residuals; and

(iii) fit a linear function for a scatter plot that suggests a linear association;

(g) interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data;

(h) compute (using technology) and interpret the correlation coefficient of a linear fit; and

(i) distinguish between correlation and causation.

(2) Mathematics statistics and probability: making inferences and justifying conclusions content standards for high school are:

(a) understand statistics as a process for making inferences about population parameters based on a random sample from that population;

(b) decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation; for example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?;

(c) recognize the purposes of and differences among sample surveys, experiments, and observational studies and explain how randomization relates to each;

(d) use data from a sample survey to estimate a population mean or proportion and develop a margin of error through the use of simulation models for random sampling;

(e) use data from a randomized experiment to compare two treatments and use simulations to decide if differences between parameters are significant; and

(f) evaluate reports based on data.

(3) Mathematics statistics and probability: conditional probability and the rules of probability content standards for high school are:

(a) describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not");

(b) understand that two events A and B are independent if the probability of A and B occurring together is the product of their probabilities and use this characterization to determine if they are independent;

(c) understand the conditional probability of A given B as $P(A \text{ and } B)/P(B)$ and interpret independence of A and B as saying that the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B;

(d) construct and interpret two-way frequency tables of data, including information from Montana American Indian data sources, when two categories are associated with each object being classified; use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities; for example, collect data from a random sample of students in your school on their favorite subject among math, science, and English; estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade; and do the same for other subjects and compare the results;

(e) recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations; for example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer;

(f) find the conditional probability of A given B as the fraction of B's outcomes that also belong to A and interpret the answer in terms of the model;

(g) apply the Addition Rule, $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$ and interpret the answer in terms of the model;

(h) (+) apply the general Multiplication Rule in a uniform probability model, $P(A \text{ and } B) = P(A)P(B|A) = P(B)P(A|B)$, and interpret the answer in terms of the model; and

(i) (+) use permutations and combinations to compute probabilities of compound events and solve problems.

(4) Mathematics statistics and probability: using probability to make decisions content standards for high school are:

(a) (+) define a random variable for a quantity of interest by assigning a numerical value to each event in a sample space and graph the corresponding probability distribution using the same graphical displays as for data distributions;

(b) (+) calculate the expected value of a random variable and interpret it as the mean of the probability distribution;

(c) (+) develop a probability distribution for a random variable defined for a sample space in which theoretical probabilities can be calculated and find the expected value; for example, find the theoretical probability distribution for the number of correct answers obtained by guessing on all five questions of a multiple-choice test where each question has four choices and find the expected grade under various grading schemes;

(d) (+) develop a probability distribution for a random variable defined for a sample space in which probabilities are assigned empirically and find the expected value; for example, find a current data distribution on the number of TV sets per household in the United States and calculate the expected number of sets per household. How many TV sets would you expect to find in 100 randomly selected households?;

(e) (+) weigh the possible outcomes of a decision by assigning probabilities to payoff values and finding expected values;

(i) find the expected payoff for a game of chance; for example, find the expected winnings from a state lottery ticket or a game at a fast-food restaurant; and

(ii) evaluate and compare strategies on the basis of expected values; for example, compare a high-deductible versus a low-deductible automobile insurance policy using various, but reasonable, chances of having a minor or a major accident;

(f) (+) use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator); and

(g) (+) analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).

(History: 20-2-114, MCA; IMP, 20-2-121, 20-3-106, 20-7-101, MCA; NEW, 2011 MAR p. 2522, Eff. 11/26/11.)

Subchapter 6

Arts Content Standards

10.53.601 ARTS CONTENT STANDARDS (1) The content areas covered by the arts standards include:

- (a) visual arts;
- (b) media arts;
- (c) theatre arts;
- (d) music; and
- (e) dance.

(2) When a district incorporates or integrates arts content into district curriculum or offers an elective course in the arts, the following content standards apply.

- (3) At each grade level a student will be able to:
 - (a) generate and conceptualize artistic ideas and work;
 - (b) organize and develop artistic ideas and work;
 - (c) refine and complete artistic work;
 - (d) select, analyze, and interpret artistic work for presentation;
 - (e) develop and refine artistic techniques and work for presentation;
 - (f) convey meaning through the presentation of artistic work;
 - (g) perceive and analyze artistic work;
 - (h) construct meaningful interpretations of artistic works;
 - (i) apply criteria to evaluate artistic work;
 - (j) synthesize and relate knowledge and personal experiences to create art;

and

(k) relate artistic ideas and works with societal, cultural, and historical context to deepen understanding, including traditional and contemporary artistic ideas and works by American Indians. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1387, Eff. 7/1/17.)

10.53.602 ARTS CONTENT STANDARDS FOR KINDERGARTEN

(1) The media arts content standards for kindergarten are that each student will:

- (a) explore ideas for media artworks using play and experimentation;
- (b) explore ideas to form models for media arts productions;
- (c) combine arts and media content to form media artworks;
- (d) choose varied art forms and other content in media artwork;
- (e) identify skills and roles used to create media arts presentations;
- (f) share reactions to the presentation of media artworks;
- (g) recognize messages in media artworks;
- (h) identify a variety of media artworks;
- (i) identify qualities and possible changes in media artworks;
- (j) use personal experiences and choices in making media artworks; and
- (k) share ideas relating media artworks to everyday life.

- (2) The visual arts content standards for kindergarten are that each student will:
- (a) engage in creative play with art materials;
 - (b) create artworks or designs that represent natural and constructed objects;
 - (c) explain the artistic process while making artworks;
 - (d) choose art objects for a personal portfolio and display;
 - (e) explain the purpose of a portfolio or collection;
 - (f) explain the purpose of an art museum;
 - (g) identify uses of artwork within one's personal environment;
 - (h) identify subject matter and details in artworks;
 - (i) explain reasons for selecting a preferred artwork;
 - (j) create art that tells a story about a personal experience; and
 - (k) identify a purpose of an artwork.
- (3) The theatre arts content standards for kindergarten are that each student will:
- (a) identify ways in which movement may be used to create or retell a story;
 - (b) express original ideas in guided creative drama;
 - (c) identify plot details in guided creative drama;
 - (d) use facial expressions to communicate character and emotions in guided creative drama;
 - (e) identify various design elements in guided creative drama;
 - (f) use voice and sound in guided creative drama;
 - (g) describe a response to characters in guided creative drama;
 - (h) describe a setting in creative drama;
 - (i) identify design elements in guided creative drama;
 - (j) identify similarities between characters and oneself in guided creative drama; and
 - (k) identify similarities and differences in stories from multiple cultures.
- (4) The music content standards for kindergarten are that each student will:
- (a) explore and experience musical concepts;
 - (b) demonstrate a musical idea;
 - (c) identify changes in musical ideas;
 - (d) identify expressive qualities in musical selections;
 - (e) rehearse to improve performances;
 - (f) perform music with expression;
 - (g) discuss preferences in musical selections;
 - (h) discuss expressive qualities of music;
 - (i) identify preferences in evaluating music;
 - (j) identify emotions when experiencing music; and
 - (k) identify connections between music, arts, and daily life in a variety of contexts.

- (5) The dance content standards for kindergarten are that each student will:
- (a) respond in movement to a variety of sounds;
 - (b) explore dances with beginning, middle, and end;
 - (c) use improvised movement to change dance sequences;
 - (d) explore different movement qualities;
 - (e) coordinate dance movements with other dancers;
 - (f) identify production elements of a dance for and with others;
 - (g) identify a movement that repeats in a dance;
 - (h) observe movement and describe it;
 - (i) identify criteria to describe movement in dance;
 - (j) identify an emotion expressed in a dance; and
 - (k) replicate movement in dances. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1387, Eff. 7/1/17.)

10.53.603 ARTS CONTENT STANDARDS FOR FIRST GRADE

- (1) The media arts content standards for first grade are that each student will:
- (a) express ideas for media artworks through traditional and nontraditional media;
 - (b) express ideas to form plans and models for media arts productions and products;
 - (c) identify the effects of making changes to the content form or presentation of media artworks;
 - (d) combine art forms and media content to form media artworks;
 - (e) demonstrate skills and roles in media arts presentations;
 - (f) discuss the presentation of media artworks and identify reactions;
 - (g) identify components and messages in media artworks;
 - (h) describe the meanings of a variety of media artworks;
 - (i) identify qualities of media artworks considering audience;
 - (j) use personal experiences, interests, and models in creating media artworks; and
 - (k) discuss uses of media artworks in everyday life.
- (2) The visual arts content standards for first grade are that each student will:
- (a) engage and collaborate in creative investigation of art materials;
 - (b) create artwork that identifies uses of everyday objects;
 - (c) use art vocabulary to describe choices while creating art;
 - (d) explain why objects, artifacts, and artwork are valued differently by different audiences;
 - (e) identify how artwork should be prepared for a presentation;
 - (f) identify the roles and responsibilities of people who visit and work in museums;
 - (g) select and describe artworks that illustrate daily life comparing different images that represent the same subject;
 - (h) describe characteristics of artworks;
 - (i) classify artwork based on reasons for preferences;
 - (j) identify reasons to create art outside of school; and
 - (k) describe the reasons that people from different places and times create artwork.

(3) The theatre arts content standards for first grade are that each student will:

- (a) identify ways in which gestures and movement may be used to create or retell a story;
- (b) contribute to the development of a sequential plot in guided creative drama;
- (c) contribute to the adaptation of the plot in guided creative drama;
- (d) use body, face, gesture, and voice to communicate character and emotions in guided creative drama;
- (e) experiment with design elements in creative drama;
- (f) use movement and gesture to communicate emotions in guided creative drama;
- (g) discuss an emotional response to guided creative drama;
- (h) discuss how setting can influence character actions in creative drama;
- (i) describe design elements in guided creative drama;
- (j) describe similarities between characters and oneself in a guided creative drama; and

(k) describe similarities and differences in stories from multiple cultures.

(4) The music content standards for first grade are that each student will:

- (a) create musical ideas for a purpose;
- (b) identify expressive intent of musical ideas;
- (c) discuss changes in musical ideas;
- (d) describe the purpose of a variety of musical selections;
- (e) rehearse to revise musical performances;
- (f) perform music for a purpose;
- (g) identify influences in making musical selections;
- (h) identify expressive qualities of music;
- (i) describe preferences while evaluating music;
- (j) describe emotions when experiencing music; and
- (k) describe connections between music, arts, and daily life in a variety of contexts.

(5) The dance content standards for first grade are that each student will:

- (a) experiment with movement inspired by a variety of sounds;
- (b) improvise a dance with beginning, middle, and end;
- (c) apply changes to movement in dance sequences;
- (d) identify movement qualities using simple dance vocabulary;
- (e) demonstrate a range of movements while coordinating with other dancers;
- (f) use production elements in a dance for and with others;
- (g) identify a movement that repeats in a dance to make a pattern;
- (h) discuss selected movements from a dance using dance vocabulary;
- (i) use criteria to identify and demonstrate movements in dance;
- (j) identify the movements in a dance that relate to a familiar experience; and
- (k) demonstrate and describe movements in dances. (History: Mont. Const.

Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1387, Eff. 7/1/17.)

10.53.604 ARTS CONTENT STANDARDS FOR SECOND GRADE

(1) The media arts content standards for second grade are that each student will:

- (a) use resources to generate creative ideas for media artworks;
- (b) use ideas to create plans and models for media arts productions;
- (c) describe expressive effects in altering, refining, and completing media artworks;
- (d) combine a variety of art and media content into unified media artworks;
- (e) use experimentation skills and various roles in creating media arts presentations;
- (f) identify and describe the experience of presenting media artworks;
- (g) describe the components and messages in media artworks;
- (h) define the purposes and meanings of media artworks;
- (i) discuss the effectiveness of and improvements for media artworks;
- (j) create media artworks and discuss their meaning and purpose; and
- (k) identify how media artworks and ideas relate to everyday life and culture.

(2) The visual arts content standards for second grade are that each student will:

- (a) discover multiple approaches and solutions to an art or design problem;
- (b) demonstrate personal interest in an artwork or design using various materials, tools, and everyday objects;
- (c) discuss choices made in creating artwork;
- (d) categorize artwork based on a theme or concept for an exhibit;
- (e) describe different materials or artistic techniques for preparing artwork for presentation;
- (f) describe how exhibited art, in a variety of venues, contributes to communities;
- (g) describe aesthetic characteristics of the natural world and constructed environments based on expressive properties;
- (h) describe the mood suggested by an artwork;
- (i) use art vocabulary to express preferences about artwork;
- (j) create artworks about events in home, school, or community life; and
- (k) discuss cultural uses of artwork from different times and places.

(3) The theatre arts content standards for second grade are that each student will:

- (a) identify ways in which voice and sounds may be used to create or retell a story;
- (b) develop dialogue in creative drama;
- (c) contribute to the adaptation of dialogue in a creative drama;
- (d) alter voice and body to expand and articulate character in creative drama experiences;
- (e) identify the basic design elements in creative drama experiences;
- (f) contribute original ideas or choices to group creative drama experiences;
- (g) describe the artistic choices made in creative drama experiences;
- (h) describe how setting influences character actions and consequences in creative drama;

- (i) discuss design elements in guided creative drama;
 - (j) compare character experiences to personal experiences in creative drama; and
 - (k) compare similarities and differences in stories from multiple cultures through creative drama experiences.
- (4) The music content standards for second grade are that each student will:
- (a) explore rhythmic musical ideas for a purpose;
 - (b) discuss the expressive intent of patterns and ideas for music;
 - (c) interpret changes in musical ideas;
 - (d) identify expressive qualities and the purpose of musical selections;
 - (e) evaluate the expressiveness of musical performances;
 - (f) perform music with expression and technical accuracy;
 - (g) explain responses to musical selections;
 - (h) explain how expressive qualities support intent in music;
 - (i) discuss personal preferences in evaluating musical selections;
 - (j) discuss emotions when experiencing music; and
 - (k) describe musical expressions in terms of patterns and connections to daily life.
- (5) The dance content standards for second grade are that each student will:
- (a) explore movement inspired by a variety of sources;
 - (b) create a dance sequence with a beginning, middle, and end;
 - (c) make choices to change movement in a dance sequence;
 - (d) correlate movement to music;
 - (e) coordinate body movements and alignment with other dancers;
 - (f) integrate basic production elements to perform a dance sequence for and with others;
 - (g) identify movements in a dance that develop a pattern;
 - (h) identify meaning and intent from the movement in a dance;
 - (i) use criteria to describe dance movements from a specific genre;
 - (j) create and perform a dance that expresses personal meaning; and
 - (k) discuss dances and the relationship between the types of movement and the dancers. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1387, Eff. 7/1/17.)

10.53.605 ARTS CONTENT STANDARDS FOR THIRD GRADE

- (1) The media arts content standards for third grade are that each student will:
- (a) develop ideas for media artworks using a variety of tools, methods, and materials;
 - (b) make plans and models for media arts productions;
 - (c) demonstrate how the use of different elements alters media artworks;
 - (d) integrate varied art forms and media content into media artworks;
 - (e) exhibit a variety of skills and roles to create new content in media arts presentations;
 - (f) discuss ways to improve media artworks presentations;

- (g) describe how messages are created by components in media artworks;
 - (h) discuss the purposes and meanings of media artworks;
 - (i) identify basic criteria to evaluate media artworks;
 - (j) demonstrate how media artworks influence popular media; and
 - (k) explain how media artworks and ideas can influence everyday life.
- (2) The visual arts content standards for third grade are that each student

will:

- (a) apply knowledge of available resources to enhance personal ideas through the art-making process;
- (b) create artwork using a variety of artistic processes and materials;
- (c) elaborate on artwork by adding details to enhance meaning;
- (d) research and discuss the possibilities and limitations of physical and digital spaces for exhibiting artwork;
- (e) prepare artworks for presentation;
- (f) explain how and where different cultures record and illustrate stories and history of life through art;
- (g) identify processes an artist uses to create artwork;
- (h) discuss the use of media to create subject matter, form, and mood in artwork;
- (i) evaluate artwork based on criteria;
- (j) develop artwork based on observations and details of surroundings; and
- (k) compare how responses to art change based on knowledge of the artwork's cultural and historical context.

(3) The theatre arts content standards for third grade are that each student

will:

- (a) experiment with character choices in creative drama;
- (b) devise original ideas for a creative drama experience;
- (c) collaborate to revise ideas of creative drama;
- (d) determine how movement and voice are incorporated into creative drama experiences;
- (e) describe design elements in a creative drama experience;
- (f) rehearse and discuss reflections about a drama experience;
- (g) discuss artistic choices and how they shape reactions to drama and theatre works;
- (h) discuss ways to develop a character for a creative drama;
- (i) compare design elements in creative drama;
- (j) discuss personal experiences and knowledge to make connections to community and culture in creative drama; and
- (k) describe how stories are adapted from literature to become drama or theatre works.

- (4) The music content standards for third grade are that each student will:
- (a) identify the connection between rhythmic and melodic ideas;
 - (b) identify expressive intent of selected musical ideas;
 - (c) explain revisions to musical ideas;
 - (d) discuss how intent is conveyed through expressive qualities;
 - (e) evaluate the effectiveness of musical performances;
 - (f) perform music for a purpose with expression and technical accuracy;
 - (g) evaluate responses to musical selections;
 - (h) describe how expressive qualities determine intent in music;
 - (i) identify criteria to evaluate musical performances;
 - (j) explain emotions experienced when creating, performing, and responding to music;
 - (k) discuss patterns and connections between music, arts, and daily life.
- (5) The dance content standards for third grade are that each student will:
- (a) experiment with movement using a variety of sources;
 - (b) identify movement patterns and sequences;
 - (c) describe differences in movement changes in dance sequences;
 - (d) choose specific movements to express intent in a dance sequence;
 - (e) identify technical dance skills that coordinate with other dancers;
 - (f) create production elements for a dance performance;
 - (g) discuss a movement pattern that creates a dance sequence;
 - (h) explain how specific movements relate to the main idea of a dance;
 - (i) use criteria to identify characteristic movements in dances from a variety of genres;
 - (j) create movement based on an event or issue; and
 - (k) explain what the movements of a dance may communicate about culture.
- (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1387, Eff. 7/1/17.)

10.53.606 ARTS CONTENT STANDARDS FOR FOURTH GRADE

- (1) The media arts content standards for fourth grade are that each student will:
- (a) develop original media artworks using a variety of creative methods;
 - (b) discuss, test, and assemble models for media arts productions;
 - (c) demonstrate intentional effect in refining media artworks;
 - (d) demonstrate how a variety of forms and content can be mixed and coordinated into media artworks;
 - (e) apply a variety of skills and knowledge to solve problems while creating media arts presentations;
 - (f) explain results of and improvements for presenting media artworks;
 - (g) explain how various forms, methods, and styles influence the message of a media artwork;

(h) explain reactions to a variety of media artworks considering their purpose and context;

(i) apply basic criteria to evaluate and improve media artworks and production processes;

(j) examine how media artworks affect meanings, situations, and cultural experiences in popular media; and

(k) demonstrate how media artworks and ideas relate to everyday life and culture.

(2) The visual arts content standards for fourth grade are that each student will:

(a) collaborate on multiple approaches to a creative art or design problem and develop a plan from concept to completion for an artwork;

(b) apply research to art-making for the purpose of communicating about constructed environments;

(c) revise artwork on the basis of insights gained through discussion;

(d) describe how past, present, and emerging technologies impact the preservation and presentation of artwork;

(e) analyze considerations for presenting and protecting artworks;

(f) compare purposes of art museums, art galleries, and other venues with the types of experiences they provide;

(g) compare components of visual imagery;

(h) analyze subject matter, form, and use of media in artwork;

(i) apply criteria to analyze artworks;

(j) create artworks that reflect community cultural traditions; and

(k) interpret artworks through observation and information about context.

(3) The theatre arts content standards for fourth grade are that each student will:

(a) design technical elements that support the story and drama experiences;

(b) develop original ideas for characters and plot in a theatre performance;

(c) revise an improvised or scripted theatre work;

(d) make physical and vocal choices to develop a character in a drama experience;

(e) discuss the use of technical elements to enhance a drama experience;

(f) perform small-group drama and theatre works to an audience;

(g) identify artistic choices made through participation in and observation of drama and theatre works;

(h) compare character qualities in drama or theatre works;

(i) propose criteria to evaluate drama and theatre works;

(j) identify the ways drama and theatre work reflect the perspectives of a community or culture; and

(k) discuss cross-cultural approaches to storytelling in drama and theatre works.

- (4) The music content standards for fourth grade are that each student will:
- (a) explain the connection between rhythmic, melodic, and harmonic ideas;
 - (b) organize musical ideas for an express purpose;
 - (c) identify revisions for personal musical ideas;
 - (d) identify the structure and elements in music selected for performance;
 - (e) evaluate accuracy and expressiveness of musical performances;
 - (f) perform music with expression, technical accuracy, and interpretation;
 - (g) explain connections to responses, musical structure, and elements;
 - (h) explain how expressive qualities help performers interpret music;
 - (i) use established criteria to evaluate musical works and performances;
 - (j) convey personal emotions using elements of music; and
 - (k) demonstrate understanding of the connection between music and its historical and cultural context.
- (5) The dance content standards for fourth grade are that each student will:
- (a) use elements of dance to create a series of movements;
 - (b) plan a dance sequence with a variety of movement patterns and structures;
 - (c) revise and explain choices made in movement changes within dance sequences;
 - (d) demonstrate shapes and expand the range of movements in a dance sequence;
 - (e) demonstrate technical dance skills that coordinate with other dancers;
 - (f) use a variety of production elements to create a formal dance performance space;
 - (g) compare movement patterns within a genre or style;
 - (h) identify intent of a dance by relating the movements, ideas, and context using dance vocabulary;
 - (i) discuss and demonstrate the movement characteristics of a dance;
 - (j) explain how the main idea of a dance is similar to or different from personal experience; and
 - (k) describe how specific movements of a dance relate to culture and time period. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1387, Eff. 7/1/17.)

10.53.607 ARTS CONTENT STANDARDS FOR FIFTH GRADE

- (1) The media arts content standards for fifth grade are that each student will:
- (a) demonstrate original ideas and innovations for media artworks using personal and community experiences;
 - (b) develop, present, and test ideas, plans, models, and proposals for media arts productions;
 - (c) determine how elements and components can be altered for clear communication and intentional effects in media artwork;
 - (d) create media artworks through the integration of multiple contents and forms;

- (e) perform a variety of roles while solving problems to create media art presentations;
 - (f) compare results of and improvements for presenting media artworks;
 - (g) differentiate how message and meaning are created by components in media artworks;
 - (h) compare personal and group interpretations of a variety of media artworks considering their intention and context;
 - (i) apply criteria to evaluate media artworks and production processes, considering context and practicing constructive feedback;
 - (j) demonstrate how media artworks affect meanings, situations, and cultural experiences; and
 - (k) research how media artworks and ideas relate to personal, social, and community life and culture.
- (2) The visual arts content standards for fifth grade are that each student will:
- (a) combine diverse concepts and artistic methods to choose an approach and create an artwork;
 - (b) create artworks that document places or objects of personal significance;
 - (c) create artist statements using art vocabulary to describe personal choices in art-making;
 - (d) explain the role of a curator;
 - (e) discuss responsible and effective use of materials and techniques for preparing, presenting, and preserving artwork;
 - (f) cite evidence to explain how an exhibition presents ideas and provides information about a specific concept or topic;
 - (g) compare personal interpretations of artwork to others' interpretations;
 - (h) analyze use of structure, context, and visual elements to convey ideas and mood in artworks;
 - (i) evaluate artworks based on styles, genres, and media;
 - (j) apply formal and conceptual knowledge of art and design to make artwork;
- and
- (k) identify how artworks are used to inform or change beliefs, values, or behaviors of an individual or society.
- (3) The theatre arts content standards for fifth grade are that each student will:
- (a) implement design ideas that support the story in a drama or theatre work;
 - (b) participate in specific responsibilities required to present a drama or theatre work informally to an audience;
 - (c) evaluate choices to improve an improvised or scripted drama or theatre work;
 - (d) experiment with physical and vocal choices to create meaning in drama and theatre works;
 - (e) demonstrate the use of technical elements in drama and theatre works;
 - (f) present drama and theatre works informally for an audience;
 - (g) explain personal reactions to artistic choices made in drama and theatre works;

- (h) explain how cultural perspectives influence personal responses to characters in drama and theatre works;
 - (i) implement criteria to evaluate drama and theatre works;
 - (j) explain how drama and theatre work connects one to a community or culture; and
 - (k) investigate historical, global, and cultural issues in drama and theatre works.
- (4) The music content standards for fifth grade are that each student will:
- (a) improvise rhythmic, melodic, and harmonic ideas for a specific purpose;
 - (b) develop musical ideas for an express purpose;
 - (c) describe revisions to personal musical ideas;
 - (d) compare the structure and elements of music in works selected for performance;
 - (e) evaluate the accuracy, effectiveness, and expressiveness of musical performances;
 - (f) perform music with expression, technical accuracy, and interpretation that conveys the composer's intent;
 - (g) cite evidence that connects musical selections to specific experiences;
 - (h) describe how performers interpret expressive intent in music;
 - (i) use established criteria to evaluate the quality of musical works and performances;
 - (j) demonstrate how a musical experience forms an emotional, physical, and cultural connection; and
 - (k) compare connections between music and historical and cultural context.
- (5) The dance content standards for fifth grade are that each student will:
- (a) use elements of dance to create a movement series;
 - (b) create a dance sequence that communicates an idea;
 - (c) revise and explain choices made to refine movement changes in dance sequences;
 - (d) perform dance sequences using a variety of rhythms;
 - (e) execute a series of dance sequences using technical dance skills;
 - (f) collaborate to adapt dance to performance venues;
 - (g) analyze characteristics of diverse dance genres and styles;
 - (h) explain how movement can communicate meaning and intent in a dance using dance vocabulary;
 - (i) use criteria to compare characteristic movements in dances from a variety of genres and styles;
 - (j) analyze dances with contrasting themes; and
 - (k) describe how specific movements or qualities of a dance communicate the ideas and perspectives of culture. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1387, Eff. 7/1/17.)

10.53.608 ARTS CONTENT STANDARDS FOR SIXTH THROUGH EIGHTH GRADES (1) The media arts content standards for sixth through eighth grades are that each student will:

- (a) produce ideas, goals, and solutions for original media artworks;
- (b) analyze ideas, plans, prototypes, and creative processes for media arts productions;
- (c) improve the technical quality of media artworks by selecting expressive and stylistic elements to reflect an understanding of purpose, audience, and place;
- (d) integrate multiple content areas and forms into media artwork productions that convey perspectives, themes, and narratives;
- (e) demonstrate a range of skills and roles in creating and performing media arts presentations;
- (f) analyze results of and improvements for presenting media artworks;
- (g) evaluate the qualities of and relationships between the components and style in media artworks;
- (h) compare and contrast the intent of a variety of media artworks and how they impact understanding of one's own culture and other cultures;
- (i) compare and contrast media artworks and production processes to context and artistic goals;
- (j) analyze how media artworks expand meaning and knowledge, create cultural experiences, and influence local and global events; and
- (k) compare how media artworks and ideas relate to various contexts, purposes, and values.

(2) The visual arts content standards for sixth through eighth grade are that each student will:

- (a) design project steps and criteria to reach an identified goal and investigate personally relevant content for art-making;
- (b) demonstrate awareness of issues and ethics of appropriation as they create artworks and design;
- (c) apply criteria to plan revisions for artwork or design;
- (d) compare similarities and differences associated with preserving and presenting two-dimensional, three-dimensional, and digital artwork;
- (e) evaluate methods for preparing and presenting artwork based on criteria;
- (f) explain and cite evidence about how exhibits reflect history and values of a community;
- (g) explain how a person's aesthetic choices are influenced by culture and environment;
- (h) collaborate to interpret artworks;
- (i) develop criteria to evaluate artwork;
- (j) use art to express ideas and current interests; and
- (k) distinguish different ways that artworks represent, establish, reinforce, and reflect group identity.

(3) The theatre arts content standards for sixth through eighth grades are that each student will:

- (a) develop a character in a drama or theatre work;
- (b) demonstrate leadership and collaboration when developing a drama or theatre work;
- (c) analyze scripted drama and theatre works;
- (d) identify the essential events in a story or script that make up the dramatic structure;
- (e) analyze how technical elements enhance drama and theatre works;
- (f) perform a rehearsed drama or theatre work for an audience;
- (g) evaluate the artistic choices in drama and theatre works;
- (h) analyze how cultural perspectives influence the evaluation of drama and theatre work;
- (i) evaluate drama and theatre works using supporting evidence;
- (j) research how cultural perspectives, community ideas, and personal beliefs impact a drama or theatre work; and
- (k) use different forms of drama and theatre work to examine contemporary, social, cultural, or global issues.

(4) The music content standards for sixth through eighth grades, when a district incorporates or integrates music into district curriculum or offers an elective course in general music, performance-based classes, music technology, or music theory, are that each student will:

- (a) generate rhythmic, melodic, and harmonic phrases and harmonic accompaniments;
- (b) select musical ideas for arrangements, songs, and compositions;
- (c) evaluate personal musical ideas;
- (d) evaluate the structure of contrasting pieces of music selected for performance;
- (e) rehearse and determine when music is ready to perform;
- (f) perform music with technical accuracy, expression, and culturally respectful practices to convey the composer's intent;
- (g) compare connections between musical selections for a specific purpose;
- (h) compare how composers and performers interpret expressive qualities of music to create performances;
- (i) develop criteria to evaluate musical works and performances;
- (j) evaluate how personal connections inform creation, performance, and response to music; and
- (k) evaluate connections between music and historical and cultural context.

(5) The dance content standards for sixth through eighth grade are that each student will:

- (a) create an original dance;
- (b) create an original dance that communicates an idea;
- (c) revise movements in dance sequences based on artistic criteria;
- (d) present dance sequences from a variety of genres and styles;
- (e) execute and coordinate technical dance skills in performance;
- (f) collaborate with others to design and execute a dance production;
- (g) explain how the elements of dance are used to communicate intent in a variety of genres or styles;
- (h) explain relationships among the elements of dance that support intent;
- (i) use criteria to determine what makes an effective performance;
- (j) create a movement sequence of two contrasting ideas; and
- (k) analyze how dances from a variety of cultures and time periods reveal ideas and perspectives. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1387, Eff. 7/1/17.)

10.53.609 ARTS CONTENT STANDARDS FOR NINTH THROUGH TWELFTH GRADES (1) The media arts content standards for ninth through twelfth grades are that each student will:

- (a) integrate ideas, develop artistic goals, and problem solve in media arts creation processes;
- (b) apply criteria in developing and refining artistic ideas, plans, prototypes, and production processes;
- (c) enhance and modify media artworks, honing aesthetic quality;
- (d) synthesize various art forms and themes into media artwork productions considering the reaction and interaction of the audience;
- (e) demonstrate a progression of skills by fulfilling specific roles in the production of a variety of media arts presentations;
- (f) evaluate impact and implement improvements in presenting media artworks considering personal, local, and social impacts;
- (g) synthesize the qualities and relationships of the components in a variety of media artworks to create intention and persuasion;
- (h) analyze the intent, meanings, and reception of a variety of media artworks, focusing on personal and cultural contexts;
- (i) analyze critiques of media artworks and production processes;
- (j) demonstrate the use of media artworks to synthesize new meaning and knowledge that reflect and form cultural experiences; and
- (k) analyze how media artworks and ideas relate to various contexts, purposes, and values.

(2) The visual arts content standards for ninth through twelfth grades are that each student will:

- (a) develop plans for creating art and design works using various materials and methods from traditional and contemporary practices;
- (b) create art or design projects in response to contemporary issues that demonstrate an awareness of ethical implications of making and distributing creative works;
- (c) complete artworks or designs incorporating relevant criteria as well as personal artistic vision;
- (d) curate artifacts and artworks for presentation and preservation;
- (e) apply appropriate methods or processes to display artwork in a specific place;
- (f) analyze an exhibit or collection's impact on personal awareness of social, cultural, or political beliefs and understandings;
- (g) evaluate the effectiveness of an artwork as perceived by a variety of audiences;
- (h) defend an interpretation of an artwork or collections of artworks;
- (i) analyze a collection of artwork based on sets of criteria;
- (j) incorporate knowledge of personal, social, cultural, and historical life to create artworks; and
- (k) compare uses of art in a variety of personal, societal, cultural, and historical contexts.

(3) The theatre arts content standards for ninth through twelfth grades are that each student will:

- (a) examine the roles of character, story, playwright, theatre tradition, and genre in a drama or theatre work;
- (b) analyze the collaborative relationship of the actor, director, and playwright in creating a drama or theatre work;
- (c) refine design choices to support the story and impact of devised or scripted drama and theatre works;
- (d) apply a variety of acting techniques in the rehearsal and performance of drama and theatre works;
- (e) apply technical elements to enhance the production of drama and theatre works;
- (f) perform a rehearsed scripted drama or theatre work for a specific audience;
- (g) synthesize what is seen, felt, and heard in drama and theatre works to develop criteria for personal artistic choices;
- (h) analyze how artistic choices are developed from personal experiences in drama and theatre works;
- (i) analyze a drama or theatre work using personal aesthetics and artistic criteria;
- (j) collaborate on drama or theatre work that examines a critical issue using various perspectives; and
- (k) analyze the social, historical, and cultural contexts of drama and theatre works.

(4) The music content standards for ninth through twelfth grades, when a district incorporates or integrates music into district curriculum or offers an elective course in general music, performance-based classes, music technology, or music theory, are that each student will:

- (a) analyze rhythmic, melodic, and harmonic phrases and harmonic accompaniments for expressive intent;
- (b) assemble and organize sounds or short musical ideas for express purposes;
- (c) analyze and revise the technical and expressive aspects of personal musical ideas;
- (d) analyze how the elements of a musical performance relate to style and mood;
- (e) analyze ways a performance conveys the elements of music, style, and mood;
- (f) analyze musical performances to explain how the elements of music are used to convey intent;
- (g) analyze elements of music in selected works for specific responses;
- (h) analyze composers' and performers' expressive intent in interpretations of music;
- (i) develop criteria to analyze the technical and expressive qualities of music and performances;
- (j) analyze how interests, knowledge, and skills relate to intent when creating, performing, and responding to music; and
- (k) analyze relationships between music, arts, society, and cultures.

(5) The dance content standards for ninth through twelfth grades are that each student will:

- (a) analyze established dance forms to inform their own original dances;
- (b) analyze dance patterns and sequences;
- (c) analyze and evaluate the impact of choices made in revising dance sequences;
- (d) present an expanded repertoire of movement and dance compositions;
- (e) use technical dance skills to perform in a variety of dance genres;
- (f) collaborate with others to produce a dance production that reflects the artistic intent of a dance performance;
- (g) compare and contrast movement patterns and the elements of dance in a variety of genres and styles;
- (h) analyze and interpret how elements of dance contribute to artistic expression across genres and styles;
- (i) analyze the artistic expression of a dance and discuss insights using criteria and genre-specific dance vocabulary;
- (j) perform a dance inspired by a topic of interest; and
- (k) analyze how dances from a variety of cultures and time periods communicate specific purpose and meaning. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1387, Eff. 7/1/17.)

Subchapter 7

Health and Physical Education Content Standards

10.53.701 HEALTH CONTENT STANDARDS (1) The content standards for health are that students:

- (a) comprehend concepts related to health promotion and disease prevention to enhance personal health;
- (b) analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors;
- (c) demonstrate the ability to access valid information, products, and services to enhance health;
- (d) demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks;
- (e) demonstrate the ability to use decision-making skills to enhance health and safety;
- (f) demonstrate the ability to use goal-setting skills to enhance health;
- (g) demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks; and
- (h) demonstrate the ability to advocate for personal, family, and community health. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.702 HEALTH STANDARDS FOR KINDERGARTEN (1) The health standards for kindergarten are that each student will be able to:

- (a) comprehend concepts related to health promotion and disease prevention to enhance personal health by:
 - (i) identifying healthy and unhealthy behaviors;
 - (ii) identifying characteristics of physical, mental, and emotional health;
 - (iii) identifying characteristics of family and social health, including those of traditional and contemporary American Indian cultures and practices;
 - (iv) identifying ways germs are spread;
 - (v) showing ways to prevent the spread of germs;
 - (vi) identifying environmental factors that can affect health;
 - (vii) identifying safety practices at school and in the community;
 - (viii) identifying common childhood injuries;
 - (ix) giving examples of health care; and
 - (x) identifying body parts and their function.
- (b) analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors by:
 - (i) identifying family practices that promote health; and
 - (ii) identifying healthy practices at school.

(c) demonstrate the ability to access valid information, products, and services to enhance health by:

- (i) identifying adults who help promote health; and
- (ii) identifying school and community health and safety resources.

(d) demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks by:

- (i) identifying feelings and emotions;
- (ii) understanding that listening is a respectful and caring behavior;
- (iii) using refusal skills in risky situations;
- (iv) identifying risky situations; and
- (v) identifying dangerous situations.

(e) demonstrate the ability to use decision-making skills to enhance health and safety by:

- (i) giving examples of safe and healthy decisions;
- (ii) identifying persons who can assist with safety and health-related

decisions;

- (iii) identifying ways to solve safety and health-related issues or problems;

and

(iv) identifying possible consequences of choices when making safety and health-related decisions.

(f) demonstrate the ability to use goal-setting skills to enhance health by:

- (i) identifying healthy habits; and
- (ii) identifying ways family members model healthy behaviors.

(g) demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks by:

- (i) identifying healthy behaviors toward self and others;
- (ii) identifying personal health practices and behaviors; and
- (iii) identifying behaviors that are harmful or risky to health.

(h) demonstrate the ability to advocate for personal, family, and community health by:

- (i) identifying ways to ask others to assist in promoting health;
- (ii) identifying positive health choices that can be made by peers and self;

and

(iii) identifying health-related messages. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.703 HEALTH STANDARDS FOR FIRST GRADE (1) The health standards for first grade are that each student will be able to:

(a) comprehend concepts related to health promotion and disease prevention to enhance personal health by:

(i) describing healthy behaviors;
(ii) giving examples of physical, mental, emotional, family, and social health, including those of traditional and contemporary American Indian cultures and practices;

(iii) identifying ways to prevent the spread of germs;
(iv) identifying environmental factors that can affect health;
(v) identifying ways to be safe and healthy at school and in the community;
(vi) identifying common childhood injuries and their treatment;
(vii) identifying reasons for seeing a health care professional; and
(viii) identifying basic body systems such as circulatory, respiratory, cardiovascular, skeletal, muscular, digestive, and nervous systems.

(b) analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors by:

(i) describing ways a family practices health promotion;
(ii) identifying ways that peers influence behavior;
(iii) identifying ways in which schools promote personal health practices and behaviors; and

(iv) identifying examples from different media sources that influence health.

(c) demonstrate the ability to access valid information, products, and services to enhance health by:

(i) describing ways adults can help promote health; and

(ii) describing school and community health and safety resources.

(d) demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks by:

(i) showing how to share feelings in a healthy way;

(ii) describing ways listening is a respectful and caring behavior;

(iii) describing and demonstrating how to use a variety of refusal skills; and

(iv) describing how to get help in a dangerous situation.

(e) demonstrate the ability to use decision-making skills to enhance health and safety by:

(i) identifying steps in making safe and healthy decisions;

(ii) identifying examples of responsible safety and health-related decisions;

(iii) identifying ways to solve safety and health-related issues or problems;

and

(iv) identifying possible consequences of choices when making safety and health-related decisions.

(f) demonstrate the ability to use goal-setting skills to enhance health by:

(i) explaining types of healthy habits; and

(ii) identifying a goal and who can help achieve that goal.

(g) demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks by:

- (i) identifying examples of healthy behaviors toward self and others;
- (ii) telling ways to maintain or improve personal health behaviors; and
- (iii) explaining harmful or risky behaviors to health.

(h) demonstrate the ability to advocate for personal, family, and community health by:

- (i) expressing how to ask others to assist in promoting health;
- (ii) showing how peers can make positive health choices; and
- (iii) listing a variety of health-related messages. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.704 HEALTH STANDARDS FOR SECOND GRADE (1) The health standards for second grade are that each student will be able to:

(a) comprehend concepts related to health promotion and disease prevention to enhance personal health by:

- (i) identifying and explaining how health behaviors affect personal health;
- (ii) recognizing that there are multiple dimensions of health, such as physical, mental, and emotional, as well as family and social health, including those of traditional and contemporary American Indian cultures and practices;
- (iii) describing some ways to prevent childhood communicable diseases;
- (iv) describing common environmental factors that can affect health;
- (v) giving examples of how to be safe at school and in the community;
- (vi) identifying ways to prevent and treat common childhood injuries;
- (vii) describing why it is important to seek health care; and
- (viii) identifying basic body systems and their function such as the circulatory, respiratory, cardiovascular, skeletal, muscular, digestive, and nervous systems.

(b) analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors by:

- (i) identifying how family and culture influence personal health practices and behaviors;
- (ii) identifying ways that peers influence behavior;
- (iii) identifying what the school can do to support personal health practices and behaviors;
- (iv) describing how the media can influence health behaviors; and
- (v) giving examples of school or community policies that promote health and safety.

(c) demonstrate the ability to access valid information, products, and services to enhance health by:

- (i) identifying trusted adults and professionals who can help promote health; and
- (ii) identifying ways to locate school and community health and safety resources.

- (d) demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks by:
 - (i) identifying healthy ways to express needs, wants, and feelings;
 - (ii) using listening skills to enhance health;
 - (iii) exhibiting ways to respond in an unwanted, threatening, or dangerous situation; and
 - (iv) expressing ways to tell a trusted adult if threatened or harmed.
- (e) demonstrate the ability to use decision-making skills to enhance health and safety by:
 - (i) identifying situations when a safety and health-related decision is needed;
 - (ii) differentiating between situations when a safety and health-related decision can be made individually or when assistance is needed;
 - (iii) describing ways to solve safety and health-related issues or problems; and
 - (iv) describing possible consequences of choices when making safety and health-related decisions.
- (f) demonstrate the ability to use goal-setting skills to enhance health by:
 - (i) identifying short-term personal health goals and taking action towards achieving goals; and
 - (ii) identifying who can help when assistance is needed to achieve a personal health goal.
- (g) demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks by:
 - (i) exhibiting healthy behaviors toward self and others;
 - (ii) exhibiting healthy practices and behaviors to maintain or improve personal health; and
 - (iii) discussing behaviors that avoid or reduce health risk.
- (h) demonstrate the ability to advocate for personal, family, and community health by:
 - (i) making requests to promote health;
 - (ii) identifying ways to encourage others to make positive health choices; and
 - (iii) describing health messages and communication techniques. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

- 10.53.705 HEALTH STANDARDS FOR THIRD GRADE (1) The health standards for third grade are that each student will be able to:
- (a) comprehend concepts related to health promotion and disease prevention to enhance personal health by:
 - (i) identifying links between healthy choices and personal health;
 - (ii) defining life skills that improve health and wellness;
 - (iii) using goal-setting to practice healthy behaviors;
 - (iv) describing various characteristics of physical, mental, emotional, family, and social health, including those of traditional and contemporary American Indian cultures and practices;

- (v) explaining the difference between childhood communicable and non-communicable diseases;
 - (vi) identifying the potential sources of environmental factors that affect health;
 - (vii) describing how health can be affected by school and community environments;
 - (viii) identifying common childhood health problems;
 - (ix) identifying situations that require health care; and
 - (x) identifying body systems and their function including circulatory, respiratory, cardiovascular, skeletal, muscular, digestive, and nervous systems.
- (b) analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors by:
- (i) describing ways family and culture influence personal health practices and behavior;
 - (ii) describing ways that peers influence behavior;
 - (iii) explaining ways the school can support personal health practices and behaviors;
 - (iv) discussing ways the media can influence thoughts, feelings, and health behaviors;
 - (v) identifying types of technology that influence personal health; and
 - (vi) describing ways that school and community policies promote health and safety.
- (c) demonstrate the ability to access valid information, products, and services to enhance health by:
- (i) giving examples of valid health information, products, and services; and
 - (ii) identifying resources available at home, school, tribe, and community that provide valid health information.
- (d) demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks by:
- (i) expressing ways to show respect for self and others, including those of traditional and contemporary American Indian cultures and practices;
 - (ii) identifying verbal and nonverbal refusal skills;
 - (iii) recognizing conflict and applying nonviolent strategies to manage or resolve conflict; and
 - (iv) discussing situations when it is necessary to seek assistance for the health and safety of self and others.
- (e) demonstrate the ability to use decision-making skills to enhance health and safety by:
- (i) identifying routine safety and health-related situations;
 - (ii) discussing situations when support is needed in making safety and health-related decisions;
 - (iii) discussing various options to safety and health-related issues or problems;
 - (iv) discussing possible consequences of choices when making safety and health-related decisions; and
 - (v) identifying outcomes for various safety, healthy, and unhealthy decisions.

- (f) demonstrate the ability to use goal-setting skills to enhance health by:
 - (i) describing ways to set personal health goals; and
 - (ii) explaining how friends, adults, and resources help in achieving a personal health goal.
 - (g) demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks by:
 - (i) describing practices of healthy behaviors toward self and others;
 - (ii) discussing reasons for responsible personal health behaviors; and
 - (iii) identifying healthy and unhealthy behaviors.
 - (h) demonstrate the ability to advocate for personal, family, and community health by:
 - (i) sharing accurate information about a health issue;
 - (ii) encouraging peers to make positive health choices; and
 - (iii) discussing health-related messages and communication techniques.
- (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.706 HEALTH STANDARDS FOR FOURTH GRADE (1) The health standards for fourth grade are that each student will be able to:

- (a) comprehend concepts related to health promotion and disease prevention to enhance personal health by:
 - (i) identifying life skills that improve health and wellness;
 - (ii) discussing healthy and unhealthy behaviors and their effect on health;
 - (iii) identifying personal health-enhancing strategies that encompass substance abuse prevention, nutrition, exercise, injury and disease prevention, and stress management, including traditional and contemporary strategies from American Indian cultures;
 - (iv) describing risky behaviors and their potential consequences;
 - (v) discussing various characteristics of physical, mental, emotional, family, and social health, including those of traditional and contemporary American Indian cultures and practices;
 - (vi) describing how universal precautions and other hygienic practices reduce the risk for contracting disease;
 - (vii) describing the potential sources of environmental factors that affect health;
 - (viii) discussing practices for safe school and community environments;
 - (ix) describing common childhood health problems and potential treatments;
 - (x) describing when it is important to seek health care; and
 - (xi) discussing the structure and function of each of the following major systems: circulatory, respiratory, cardiovascular, skeletal, muscular, digestive, and nervous.

(b) analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors by:

(i) explaining ways family and culture influence personal health practices and behaviors;

(ii) discussing ways that peers influence behavior;

(iii) identifying how the school, tribe, and community can support personal health practices and behaviors;

(iv) discussing why the media influences thoughts, feelings, and health behaviors;

(v) identifying ways technology can influence personal health; and

(vi) discussing ways that school and community policies promote health, safety, and disease prevention.

(c) demonstrate the ability to access valid information, products, and services to enhance health by:

(i) identifying qualities of valid health information, products, and services; and

(ii) describing resources from home, school, tribe, and community that provide valid health information.

(d) demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks by:

(i) demonstrating ways to communicate care, consideration, and respect of self and others, including those of traditional and contemporary American Indian cultures and practices;

(ii) identifying reasons to use refusal skills to avoid or reduce health risks;

(iii) identifying strategies to control angry feelings; and

(iv) describing reasons for seeking assistance to enhance the health and safety of self and others.

(e) demonstrate the ability to use decision-making skills to enhance health and safety by:

(i) discussing options of what to do in potential safety and health-risk situations;

(ii) identifying situations when assistance is needed to make safety and health-related decisions;

(iii) identifying positive alternatives to resolving safety and health-related issues or problems;

(iv) explaining possible consequences of health-related decisions; and

(v) creating a list of positive and negative outcomes related to various safety and health-related decisions.

(f) demonstrate the ability to use goal-setting skills to enhance health by:

(i) discussing reasons for setting personal health goals; and

(ii) discussing personal health goal-setting and the resources that can assist in achieving goals.

- (g) demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks by:
- (i) discussing practices of healthy behaviors toward self and others;
 - (ii) identifying responsible personal health behaviors;
 - (iii) explaining personal health practices and behaviors that maintain or improve personal health; and
 - (iv) discussing reasons for healthy behaviors that avoid or reduce health risks.
- (h) demonstrate the ability to advocate for personal, family, and community health by:
- (i) discussing accurate information about a health issue;
 - (ii) discussing ways that encourage others to make positive health choices;
- and
- (iii) comparing and contrasting health messages and communication techniques. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.707 HEALTH STANDARDS FOR FIFTH GRADE (1) The health standards for fifth grade are that each student will be able to:

- (a) comprehend concepts related to health promotion and disease prevention to enhance personal health by:
 - (i) explaining the relationship between healthy behaviors and personal health;
 - (ii) describing personal health-enhancing strategies that encompass substance abuse prevention, nutrition, exercise, injury and disease prevention and stress management, including traditional and contemporary strategies from American Indian cultures;
 - (iii) identifying potential consequences of engaging in risky behaviors;
 - (iv) identifying examples of physical, mental, emotional, family and social health, including those of traditional and contemporary American Indian cultures and practices;
 - (v) explaining practices used to prevent or reduce the risk of spreading or contracting communicable diseases;
 - (vi) discussing ways environmental factors affect health;
 - (vii) describing ways in which safe and healthy school and community environments can promote personal health;
 - (viii) describing ways to prevent and treat common childhood injuries and health problems;
 - (ix) giving examples of health care and their benefits, including the unique issues regarding American Indians and health care benefits; and
 - (x) identifying the basic structure and function of the major human body systems, including growth and development and the reproductive system.

(b) analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors by:

(i) examining how family and culture influence personal health practices and behaviors;

(ii) identifying how peers can influence healthy and unhealthy behaviors;

(iii) describing how the school, tribe, and community can support personal health practices and behaviors;

(iv) explaining how media influences thoughts, feelings, and health behaviors;

(v) discussing ways that technology can influence personal health; and

(vi) explaining how school, public, and tribal health policies can influence health promotion and disease prevention.

(c) demonstrate the ability to access valid information, products, and services to enhance health by:

(i) identifying characteristics of valid health information, products, and services; and

(ii) locating resources from home, school, tribe, and community that provide valid health information.

(d) demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks by:

(i) using effective verbal and nonverbal communication skills to enhance health, including those of traditional and contemporary American Indian cultures and practices;

(ii) using refusal skills that avoid or reduce health risks;

(iii) using nonviolent strategies to manage or resolve conflict; and

(iv) discussing how to ask for assistance to enhance the health and safety of self and others.

(e) demonstrate the ability to use decision-making skills to enhance health and safety by:

(i) identifying health-related situations that might require thoughtful decisions;

(ii) analyzing when assistance is needed in making safety and health-related decisions;

(iii) comparing and contrasting healthy options to safety and health-related issues or problems;

(iv) predicting the potential outcomes of options when making safety and health-related decisions; and

(v) describing the outcomes of safety and health-related decisions.

(f) demonstrate the ability to use goal-setting skills to enhance health by:

(i) setting a personal health goal and tracking progress toward its achievement; and

(ii) identifying resources to assist in achieving a personal health goal.

(g) demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks by:

- (i) explaining benefits of healthy behaviors toward self and others;
- (ii) practicing responsible personal health behaviors;
- (iii) using a variety of healthy practices and behaviors to maintain or improve personal health; and
- (iv) using a variety of behaviors to avoid or reduce health risks.

(h) demonstrate the ability to advocate for personal, family, and community health by:

- (i) expressing opinions and giving accurate information about health issues;
- (ii) practicing and rationalizing reasons for positive health choices; and
- (iii) evaluating various health messages and communication techniques.

(History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.708 HEALTH STANDARDS FOR SIXTH THROUGH EIGHTH

GRADES (1) The health standards for sixth through eighth grades are that each student will be able to:

(a) comprehend concepts related to health promotion and disease prevention to enhance personal health by:

- (i) discussing the relationship between healthy behaviors and personal health;
- (ii) describing the benefits of and barriers to practicing healthy behaviors;
- (iii) analyzing behaviors that promote health enhancing strategies for issues such as substance abuse prevention, nutrition, sexual activity, exercise, injury and disease prevention, and stress management, including traditional and contemporary strategies from American Indian cultures;
- (iv) analyzing the potential consequences of engaging in risky behaviors;
- (v) identifying characteristics of physical, mental, emotional, family, and social health including those of traditional and contemporary American Indian cultures and practices;
- (vi) explaining practices used to prevent or reduce the risk of spreading or contracting communicable diseases;
- (vii) discussing ways environmental factors affect health;
- (viii) analyzing ways in which safe and healthy school and community environments can promote personal health;
- (ix) describing ways to reduce or prevent injuries and other adolescent health problems;
- (x) explaining how appropriate health care can promote personal health, including the unique issues regarding American Indians and health care benefits;
- (xi) defining human body systems, their function, and their interrelationship with one another; and
- (xii) identifying basic structures and functions of the male and female reproductive health systems.

(b) analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors by:

- (i) explaining how family and culture influence the health of adolescents;
- (ii) explaining how the perception of societal norms influence healthy and unhealthy behaviors;
- (iii) explaining the influence of personal values and beliefs on individual health practices and behaviors;
- (iv) describing how peers influence healthy and unhealthy behaviors;
- (v) explaining how the school, tribe, and community can affect personal health practices and behaviors;
- (vi) explaining how messages from media influence health behaviors;
- (vii) explaining the influence of technology on personal and family health; and
- (viii) comparing and contrasting how school, public, and tribal health policies can influence health promotion and disease prevention.

(c) demonstrate the ability to access valid information, products, and services to enhance health by:

- (i) analyzing the validity of health information, products, and services;
- (ii) accessing valid health information from home, school, tribe, and community;
- (iii) determining the accessibility of products that enhance health; and
- (iv) describing situations that may require professional health services.

(d) demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks by:

- (i) applying effective verbal and nonverbal communication skills to enhance health, including those of traditional and contemporary American Indian cultures and practices;
- (ii) using refusal and negotiation skills that avoid or reduce health risks;
- (iii) using effective conflict management or resolution strategies; and
- (iv) discussing how to ask for assistance to enhance the health and safety of self and others.

(e) demonstrate the ability to use decision-making skills to enhance health and safety by:

- (i) identifying circumstances that can help or hinder safe and healthy decision making;
- (ii) determining when safety and health-related situations require the application of a thoughtful decision-making process;
- (iii) determining when individual or collaborative decision making is appropriate;
- (iv) distinguishing between safe, healthy, and unhealthy alternatives to health-related issues or problems;
- (v) predicting the potential short-term and long-term impact of health and safety-related options on self and others; and
- (vi) analyzing the outcomes of safety and health-related decisions.

- (f) demonstrate the ability to use goal-setting skills to enhance health by:
 - (i) developing a goal to adopt, maintain, or improve personal health practices;
 - (ii) assessing personal health practices;
 - (iii) applying strategies and skills needed to attain a personal health goal; and
 - (iv) describing how personal health goals can vary with changing abilities, priorities, and responsibilities.
- (g) demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks by:
 - (i) analyzing healthy practices and behaviors that will maintain or improve the health of self and others;
 - (ii) explaining the importance of assuming responsibility for personal health behaviors; and
 - (iii) describing behaviors to avoid or reduce health risks to self and others.
- (h) demonstrate the ability to advocate for personal, family, and community health by:
 - (i) stating a health-enhancing position on a topic and support it with accurate information;
 - (ii) describing how to influence and support others to make positive health choices;
 - (iii) working cooperatively to advocate for healthy individuals, families, tribes, and schools; and
 - (iv) identifying ways in which health-related messages and communication techniques can be altered for different audiences. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.709 HEALTH STANDARDS FOR NINTH THROUGH TWELFTH

GRADES (1) The health standards for ninth through twelfth grades are that each student will be able to:

- (a) comprehend concepts related to health promotion and disease prevention to enhance personal health by:
 - (i) predicting how health behaviors can affect health status;
 - (ii) comparing and contrasting the benefits of and barriers to practicing a variety of healthy behaviors;
 - (iii) developing personal health-enhancing strategies for issues such as substance abuse prevention, nutrition, exercise, sexual activity, injury and disease prevention, and stress management, including traditional and contemporary strategies from American Indian cultures;
 - (iv) comparing and contrasting the potential consequences of engaging in risky behavior;
 - (v) analyzing the interrelationships of physical, mental, emotional, family and social health or personal health, including those of American Indian cultures and practices;

- (vi) comparing and contrasting various ways to prevent communicable diseases;
 - (vii) analyzing how environmental factors and personal health are interrelated;
 - (viii) analyzing how genetics and family history can impact personal health;
 - (ix) comparing and contrasting ways to advocate for safe and healthy school and community environments to promote personal health;
 - (x) proposing ways to reduce or prevent injuries and health problems;
 - (xi) analyzing the relationship between access to health care and health status, including the unique issues regarding American Indians and health care benefits resulting from treaty obligations;
 - (xii) analyzing human body systems, their function, and their interrelationship with one another;
 - (xiii) explaining the natural body changes of reproductive health;
 - (xiv) explaining fertilization, conception, and how the baby's sex and inherited traits are determined; and
 - (xv) comparing and contrasting how physical, mental, social, spiritual, and cultural factors influence attitudes about sexuality.
- (b) analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors by:
- (i) comparing and contrasting how the family and culture influence the health of individuals;
 - (ii) explaining how the perception of societal norms influence healthy and unhealthy behaviors, including those of traditional and contemporary American Indian cultures and practices;
 - (iii) explaining the influence of personal values and beliefs on individual health practices and behaviors;
 - (iv) explaining how peers influence healthy and unhealthy behaviors;
 - (v) evaluating how the school, tribe, and community can affect personal health practices and behaviors;
 - (vi) evaluating the effect of media on personal and family health;
 - (vii) evaluating the impact of technology on personal, family, and community health; and
 - (viii) explaining how public health policies and governmental regulations, including tribal, can influence health promotion and disease prevention.
- (c) demonstrate the ability to access valid information, products, and services to enhance health by:
- (i) evaluating the validity of health information, products, and services;
 - (ii) using resources from home, school, tribe, and community that provide valid health information;
 - (iii) determining the accessibility of products and services that enhance health; and
 - (iv) determining when professional health services may be required.

(d) demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks by:

(i) using skills for communicating effectively with family, peers, and others to enhance health, including those of traditional and contemporary American Indian cultures and practices;

(ii) using refusal, negotiation, and collaboration skills to enhance health and avoid or reduce health risks;

(iii) using strategies to prevent, manage, or resolve interpersonal conflicts without harming self or others; and

(iv) discussing how to ask for and offer assistance to enhance the health and safety of self and others.

(e) demonstrate the ability to use decision-making skills to enhance health and safety by:

(i) examining barriers that can hinder safe and healthy decision making;

(ii) determining the value of applying a thoughtful decision-making process in safety and health-related situations;

(iii) justifying when individual or collaborative decision making is appropriate;

(iv) generating alternatives to safety and health-related issues or problems;

(v) analyzing the potential short-term and long term impact of health and safety alternatives on self and others; and

(vi) evaluating the effectiveness of safety and health-related decisions.

(f) demonstrate the ability to use goal-setting skills to enhance health by:

(i) developing a plan to attain a personal health goal that addresses strengths, needs, and risks;

(ii) assessing personal health practices and overall health status;

(iii) implementing strategies and monitoring progress in achieving a personal health goal; and

(iv) formulating an effective long-term personal health plan.

(g) demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks by:

(i) discussing ways to advocate for a variety of healthy practices and behaviors that will maintain or improve the health of self and others;

(ii) analyzing the role of individual responsibility for enhancing health; and

(iii) discussing ways to advocate for a variety of behaviors to avoid or reduce health risks to self and others.

(h) demonstrate the ability to advocate for personal, family, and community health by:

(i) using accurate peer and societal norms to formulate a health-enhancing message;

(ii) advocating for behaviors and practices that will support others in making positive health choices;

(iii) working cooperatively as an advocate for improving personal, family, and community health; and

(iv) adapting health messages and communication techniques to target audiences. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.710 CONTENT STANDARDS FOR PHYSICAL EDUCATION

(1) The content standards for physical education are that students:

- (a) demonstrate competency in a variety of motor skills and movement patterns;
- (b) apply knowledge of concepts, principles, strategies, and tactics related to movement and performance;
- (c) demonstrate the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness;
- (d) exhibit responsible personal and social behavior that respects self and others;
- (e) recognize the value of physical activity for health, enjoyment, self-expression, and/or social interaction. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.711 DEFINITIONS (1) For purposes of the physical education content standards contained in this chapter, the following definitions apply:

- (a) "Locomotor skills" are defined as skills used to move the body from one place to another including walking, running, skipping, leaping, sliding, galloping, jumping, and hopping.
- (b) "Manipulative skills" are defined as skills developed when a person handles some kind of object including throwing, kicking, striking, catching, redirecting an object in flight (such as a volleyball) or continuous control of an object such as a hoop.
- (c) "Mature form/pattern" are defined as movement that is performed with ease using critical elements of the motor skill pattern that are smooth, efficient, and repetitive, and can be performed without thinking out each step of the movement.
- (d) "Nonlocomotor skills" are defined as skills that are performed in place without appreciable spatial movement and include bending, and stretching, pushing, pulling, raising and lowering, twisting and turning, and shaking.
- (e) "Small-sided practice tasks" are defined as games or deliberate tasks utilizing fewer students which are designed to practice particular skills or tasks. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.712 PHYSICAL EDUCATION STANDARDS FOR KINDERGARTEN

(1) The physical education standards for kindergarten are that each student will be able to:

- (a) demonstrate competency in a variety of motor skills and movement patterns by:
 - (i) performing basic locomotor, nonlocomotor, and manipulative skills; and
 - (ii) performing locomotor skills in response to teacher-led creative dance.
- (b) apply knowledge of concepts, principles, strategies, and tactics related to movement and performance by:
 - (i) moving in different pathways, general space with different speeds, and in personal space to a rhythm.

- (c) demonstrate the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness by:
 - (i) recognizing that food provides energy for physical activity;
 - (ii) identifying active play opportunities outside health enhancement class;
 - (iii) actively participating in health enhancement class;
 - (iv) recognizing that physical activity causes physical changes; and
 - (v) practicing warm-ups and cool-downs relative to vigorous physical activity.
- (d) exhibit responsible personal and social behavior that respects self and others by:
 - (i) following directions in group settings;
 - (ii) acknowledging responsibility for behavior when prompted;
 - (iii) following instruction and direction when prompted;
 - (iv) recognizing the established protocol for class activities;
 - (v) sharing equipment and space with others;
 - (vi) recognizing differences in ideas, cultures, and body types; and
 - (vii) following teacher directions for safe participation and proper use of equipment with minimal reminders.
- (e) recognize the value of physical activity for health, enjoyment, self-expression, and or social interaction by:
 - (i) understanding that physical activity is important for good health;
 - (ii) acknowledging that some physical activities are challenging or difficult;
- and
 - (iii) identifying physical activities that result in a positive personal experience while playing with friends. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.713 PHYSICAL EDUCATION STANDARDS FOR FIRST GRADE (1)

The physical education standards for first grade are that each student will be able to:

- (a) demonstrate competency in a variety of motor skills and movement patterns by:
 - (i) performing most basic locomotor, nonlocomotor, and manipulative skills using mature patterns;
 - (ii) combining locomotor and nonlocomotor skills in a teacher-designed dance.
- (b) apply knowledge of concepts, principles, strategies, and tactics related to movement and performance by:
 - (i) moving in self-space; and
 - (ii) differentiating between fast and slow speeds, strong and light force.
- (c) demonstrate the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness by:
 - (i) differentiating between healthy and unhealthy foods;
 - (ii) discussing the benefits of being active and exercising or playing;
 - (iii) actively engaging in health enhancement class;

- (iv) understanding that muscles grow stronger with physical activity; and
- (v) identifying warm-up and cool-down activities related to vigorous physical activity.
- (d) exhibit responsible personal and social behavior that respects self and others by:
 - (i) accepting personal responsibility by using equipment and space appropriately;
 - (ii) following the rules or parameters of the learning environment;
 - (iii) responding appropriately to general feedback from a teacher;
 - (iv) exhibiting the established protocols for class activities;
 - (v) working independently with others in a variety of class environments;
 - (vi) discussing ways to accept others' ideas, cultural diversity, and body types; and
 - (vii) following teacher directions for safe participation and proper use of equipment without teacher reminders.
- (e) recognize the value of physical activity for health, enjoyment, self-expression, and or social interaction by:
 - (i) identifying physical activity as a component of good health;
 - (ii) understanding challenges in physical activities can lead to success; and
 - (iii) describing positive results gained from participating in physical activities with others. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.714 PHYSICAL EDUCATION STANDARDS FOR SECOND GRADE

- (1) The physical education standards for second grade are that each student will be able to:
- (a) demonstrate competency in a variety of motor skills and movement patterns by:
 - (i) performing basic locomotor, nonlocomotor, and manipulative skills in mature patterns; and
 - (ii) performing rhythmic activity with correct response to simple rhythms.
 - (b) apply knowledge of concepts, principles, strategies, and tactics related to movement and performance by:
 - (i) identifying games, sports, or dances performed in other cultures; and
 - (ii) combining locomotor skills in general space to rhythm or beat.
 - (c) demonstrate the knowledge and skills needed to achieve and maintain a health-enhancing level of physical activity and fitness by:
 - (i) recognizing the balance of good nutrition with physical activity;
 - (ii) describing physical activities outside health enhancement class;
 - (iii) actively engaging in health enhancement class in response to instruction and practice;
 - (iv) identifying physical activities which contribute to developing strength and fitness; and
 - (v) describing warm-up and cool-down activities related to vigorous physical activity.

- (d) exhibit responsible personal and social behavior that respects self and others by:
- (i) practicing skills with minimal teacher prompting;
 - (ii) accepting responsibility for class protocols with behavior and performance actions;
 - (iii) accepting specific corrective feedback from a teacher;
 - (iv) recognizing the role of rules and etiquette in teacher-designed physical activities;
 - (v) working independently with others in partner environments;
 - (vi) recognizing ways to accept others' ideas, cultural diversity, and body types during games and physical activities; and
 - (vii) working independently and safely in physical activity settings.
- (e) recognize the value of physical activity for health, enjoyment, self-expression, and or social interaction by:
- (i) describing the value of "good health balance";
 - (ii) comparing physical activities that bring confidence and challenges; and
 - (iii) discussing positive results gained from participating in physical activities with others. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.715 PHYSICAL EDUCATION STANDARDS FOR THIRD GRADE

- (1) The physical education standards for third grade are that each student will be able to:
- (a) demonstrate competency in a variety of motor skills and movement patterns by:
 - (i) performing a combination of motor skills in various contexts; and
 - (ii) performing developmentally appropriate dance steps and movement patterns.
 - (b) apply knowledge of concepts, principles, strategies, and tactics related to movement and performance by:
 - (i) discussing the origin of a game, sport, or dance, including traditional and contemporary American Indian contributions and cultures; and
 - (ii) recognizing the concept of open space in movement context.
 - (c) demonstrate the knowledge and skills needed to achieve and maintain a health-enhancing level of physical activity and fitness by:
 - (i) identifying foods that are beneficial for pre- and post-physical activity;
 - (ii) charting participation in physical activities outside health enhancement class;
 - (iii) engaging in the activities of health enhancement class without teacher prompting;
 - (iv) describing the concept of physical fitness and provide examples of physical activity that enhances fitness; and
 - (v) recognizing the importance of warm-up and cool-down activities related to vigorous physical activity.

- (d) exhibit responsible personal and social behavior that respects self and others by:
 - (i) practicing personal responsibility in teacher-directed activities;
 - (ii) working independently for extended periods of time;
 - (iii) accepting and implementing specific corrective teacher feedback;
 - (iv) recognizing the role of rules and etiquette in physical activity with peers;
 - (v) supporting and working cooperatively with others;
 - (vi) discussing ways to accept others' ideas, cultural diversity, and body types during games and physical activity; and
 - (vii) working independently and safely in physically active settings.
 - (e) recognize the value of physical activity for health, enjoyment, self-expression, and or social interaction by:
 - (i) discussing the relationship between physical activity and good health;
 - (ii) discussing the challenge that comes from learning a new physical activity;
- and
- (iii) describing the positive social interactions that come when engaged with others in physical activity. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.716 PHYSICAL EDUCATION STANDARDS FOR FOURTH GRADE

- (1) The physical education standards for fourth grade are that each student will be able to:
 - (a) demonstrate competency in a variety of motor skills and movement patterns by:
 - (i) using a combination of motor skills to engage in a variety of activities; and
 - (ii) combining locomotor movement patterns and dance steps used in an original dance.
 - (b) apply knowledge of concepts, principles, strategies, and tactics related to movement and performance by:
 - (i) discussing the origin of a variety of games, sports, or dances, including traditional and contemporary American Indian contributions and cultures; and
 - (ii) understanding the concept of open spaces to activities such as combination skills, small-sided practice tasks, gymnastics, and dance environments.
 - (c) demonstrate the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness by:
 - (i) discussing the importance of hydration and hydration choices relative to physical activities;
 - (ii) analyzing opportunities for participating in physical activities outside health enhancement class;
 - (iii) actively engaging in the activities of health enhancement class, both teacher-directed and independent;
 - (iv) identifying the components of health-related fitness; and
 - (v) engaging in warm-up and cool-down activities related to cardio-respiratory fitness assessment.

- (d) exhibit responsible personal and social behavior that respects self and others by:
 - (i) demonstrating responsible behavior in independent group situations;
 - (ii) reflecting on personal social behavior in physical activity;
 - (iii) listening respectfully to corrective feedback from others;
 - (iv) adhering to rules of etiquette in a variety of physical activities;
 - (v) recognizing and supporting individual differences in movement performance at all skill levels;
 - (vi) describing ways to accept others' ideas, cultural diversity, and body types during games and physical activities;
 - (vii) working safely with peers and equipment in physical activity settings.
- (e) recognize the value of physical activity for health, enjoyment, self-expression, and or social interaction by:
 - (i) examining the health benefits of participating in physical activity;
 - (ii) rating the enjoyment of participating in challenging and mastered physical activities; and
 - (iii) describing and comparing the positive social interactions when engaged in partner, small-group, and large-group physical activities. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.717 PHYSICAL EDUCATION STANDARDS FOR FIFTH GRADE

- (1) The physical education standards for fifth grade are that each student will be able to:
 - (a) demonstrate competency in a variety of motor skills and movement patterns by:
 - (i) exhibiting competency in fundamental motor skills and selected combinations of skills; and
 - (ii) combining locomotor skills in cultural as well as creative dances (self and group), including those of traditional and contemporary American Indian cultures, with correct rhythm and pattern.
 - (b) apply knowledge of concepts, principles, strategies, and tactics related to movement and performance by:
 - (i) recognizing that many different countries and cultures have been the origin of games, sports, and dance, including those of traditional and contemporary American Indian cultures; and
 - (ii) combining spatial concepts with locomotor and nonlocomotor movements for small groups in gymnastics, dance, and games environments.
 - (c) demonstrate the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness by:
 - (i) analyzing the impact of food choices related to physical activity, youth sports, and personal health;
 - (ii) charting and analyzing fitness benefits of physical activity outside health enhancement class;
 - (iii) actively participating in all activities of health enhancement class;
 - (iv) differentiating between skill-related and health-related fitness; and
 - (v) identifying the need for warm-up and cool-down activities related to various physical activities.

- (d) exhibit responsible personal and social behavior that respects self and others by:
- (i) participating in physical activity with responsible interpersonal behavior;
 - (ii) participating with responsible personal behavior in a variety of physical activity contexts, environments, and facilities;
 - (iii) giving corrective feedback respectfully to peers;
 - (iv) critiquing the etiquette involved in rules of various activities;
 - (v) accepting, recognizing, and actively involving others with both higher and lower skill abilities into physical activities and group projects;
 - (vi) accepting others' ideas, cultural diversity, and body types by engaging in cooperative and collaborative movement projects; and
 - (vii) applying safety principles with physical activities.
- (e) recognize the value of physical activity for health, enjoyment, self-expression, and or social interaction by:
- (i) comparing the health benefits of participating in selected physical activities;
 - (ii) expressing, through various media, the enjoyment and challenge of participating in a favorite physical activity; and
 - (iii) analyzing the social benefits gained from participating in physical activity.
- (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.718 PHYSICAL EDUCATION STANDARDS FOR SIXTH THROUGH EIGHTH GRADES (1) The physical education standards for sixth through eighth grades are that each student will be able to:

- (a) demonstrate competency in a variety of motor skills and movement patterns by:
 - (i) performing, with mature form, locomotor, nonlocomotor, and manipulative skills necessary for participating in games and sports, outdoor pursuits, and individual performance activities; and
 - (ii) identifying correct rhythm and pattern for a different dance form among folk, social, creative, line, and world dance, including those of traditional and contemporary American Indian cultures.
- (b) apply knowledge of concepts, principles, strategies, and tactics related to movement and performance by:
 - (i) researching the history and origin of various games, sports, and dance, including those of traditional and contemporary American Indian cultures;
 - (ii) using tactics to create open space and close space during small-side play by combining locomotor movements; and
 - (iii) describing and applying a variety of movement concepts.

- (c) demonstrate the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness by:
- (i) describing the relationship between poor nutrition and health risk factors;
 - (ii) identifying the five components of health-related fitness and explaining the connections between fitness and overall physical and mental health;
 - (iii) identifying forms of technology and social media that support a healthy, active lifestyle;
 - (iv) participating in a variety of self-selected aerobic fitness activities, and lifetime activities outside of health enhancement class;
 - (v) planning and implementing a program to enhance personal fitness;
 - (vi) comparing and contrasting health-related fitness components;
 - (vii) describing the role of stretching and flexibility in injury prevention; and
 - (viii) explaining how body systems interact with one another during physical activity.
- (d) exhibit responsible personal and social behavior that respects self and others by:
- (i) accepting responsibility for improving one's own levels of physical activity and fitness;
 - (ii) explaining practices that promote responsible behavior of self and others in a variety of physical activities;
 - (iii) providing encouragement and feedback to peers without prompting from teacher;
 - (iv) applying rules and etiquette by acting as an official during modified games, dance, and rhythm;
 - (v) cooperating with classmates on problem-solving initiatives during adventure activities, large-group initiatives, and game play;
 - (vi) responding appropriately to participant's ethical and unethical behavior during physical activity by using roles and guidelines for resolving conflicts;
 - (vii) providing ways to accept others' ideas, cultural diversity, and body types by engaging in cooperative and collaborative movement projects; and
 - (viii) identifying safety concerns and using physical activity and fitness equipment appropriately.
- (e) recognize the value of physical activity for health, enjoyment, self-expression, and/or social interaction by:
- (i) identifying the five components of health-related fitness and explaining the connection between fitness and overall physical and mental health;
 - (ii) developing a plan of action and making appropriate decisions based on that plan when faced with an individual challenge; and
 - (iii) comparing and contrasting various physical activities for their social benefit. (History: Mont. Const. Art. X, sec. 9, 20-2-114, MCA; IMP, Mont. Const. Art. X, sec. 9, 20-1-501, 20-2-121, 20-3-106, 20-7-101, 20-9-309, MCA; NEW, MAR 2016 p. 1389, Eff. 7/1/17.)

10.53.719 PHYSICAL EDUCATION STANDARDS FOR NINTH THROUGH TWELFTH GRADES (1) The physical education standards for ninth through twelfth grades are that each student will be able to:

(a) demonstrate competency in a variety of motor skills and movement patterns by:

(i) refining activity-specific movement skills in one or more lifetime activities;

(ii) exhibiting competency in two or more specialized skills in health-related fitness activities; and

(iii) choreographing or participating in a form of dance.

(b) apply knowledge of concepts, principles, strategies, and tactics related to movement and performance by:

(i) identifying and discussing the historical and cultural roles of games, sports, and dance, including those of traditional and contemporary American Indian cultures;

(ii) comparing similarities and differences in various dance forms, including those of traditional and contemporary American Indian cultures and practices;

(iii) using spatial concepts of locomotor and nonlocomotor movements in outdoor pursuits; and

(iv) identifying the stages of learning a motor skill.

(c) demonstrate the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness by:

(i) creating a healthy snack plan for before, during, and after exercise that addresses nutrition needs for each phase;

(ii) investigating the relationships among physical activity, nutrition, and body composition;

(iii) analyzing and applying technology and social media as tools to support a healthy, active lifestyle;

(iv) analyzing the impact of life choices, economics, motivation, and accessibility on maintaining physical activity in college or career settings;

(v) creating a plan, training for and participating in a community event with a focus on physical activity, including those of American Indian cultural traditions;

(vi) designing and implementing a strength and conditioning program;

(vii) evaluating the importance of stretching and flexibility in lifetime activities;

(viii) identifying the structure of skeletal muscle and fiber types as they relate to muscle development; and

(ix) identifying the different energy systems used in physical activities.

(d) exhibit responsible personal and social behavior that respects self and others by:

(i) accepting differences between personal characteristics and the idealized body images and elite performance levels portrayed in various media;

(ii) advocating for responsible behavior of self and others in a variety of physical activities;

(iii) analyzing the benefits of a variety of feedback techniques;

(iv) examining moral and ethical conduct in specific competitive situations;

(v) assuming a leadership role in a physical activity setting such as coach, referee, or group leader;

(vi) advocating for acceptance of others' ideas, cultural diversity, and body types by engaging in cooperative and collaborative movement projects; and

(vii) applying best practices for participating safely in physical activity, exercise, and dance.

(e) recognize the value of physical activity for health, enjoyment, self-expression, and or social interaction by:

(i) analyzing the health benefits of a self-selected physical activity;

(ii) choosing an appropriate level of challenge to experience success while participating in a self-selected physical activity; and

(iii) evaluating social interactions and supports in a variety of physical activities.