
CTE DRAFT FOR ECONOMIC IMPACT SURVEY 12.16.19

This revised draft reflects the consensus decisions of the Career and Technical Education Negotiated Rulemaking Committee, held on December 3, 2019.

Please visit the [OPI K-12 Content Standards and Revision webpage](#) for meeting agenda, minutes, video recording, and other meeting materials.

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1 MONTANA CONTENT STANDARDS FOR CAREER AND TECHNICAL EDUCATION

- 2 1. The content areas covered by the career and technical education standards may
3 include:
- 4 a. act as a responsible and contributing citizen and employee
 - 5 b. apply appropriate academic and technical skills
 - 6 c. attend to personal health and financial well-being
 - 7 d. communicate clearly, effectively, and with reason
 - 8 e. consider the environmental, social and economic impacts of decisions
 - 9 f. demonstrate creativity and innovation
 - 10 g. employ valid and reliable research strategies
 - 11 h. utilize critical thinking to make sense of problems and persevere in solving them
 - 12 i. model integrity, ethical leadership, and effective management
 - 13 j. plan education and career path aligned to personal goals
 - 14 k. use technology to enhance productivity
 - 15 l. work productively in teams while using cultural/global competence
- 16 2. Students will learn career and technical education content across programs of study,
17 also known as Career Pathways, and integrated with academic content.
- 18 3. Programs of study may include:
- 19 a. agriculture, food, and natural resources
 - 20 b. architecture and construction
 - 21 c. arts, audio-visual technology, and communications
 - 22 d. business management and administration
 - 23 e. education and training
 - 24 f. finance
 - 25 g. government and public administration
 - 26 h. health sciences
 - 27 i. hospitality and tourism
 - 28 j. human services
 - 29 k. information technology
 - 30 l. law, public safety, corrections and security
 - 31 m. manufacturing
 - 32 n. marketing
 - 33 o. STEM (science, technology, engineering, math)
 - 34 p. transportation, distribution and logistics

Commented [MK1]: NOTE:
Term to be included in Definitional rule.

1 CAREER AND TECHNICAL EDUCATION STANDARDS FOR KINDERGARTEN

- 2 1. The career and technical education standards for kindergarten are that each student will:
- 3 a. Act as a responsible and contributing citizen and employee
- 4 i. explore roles of employees, citizens, and community members
- 5 b. Demonstrate creativity and innovation
- 6 i. explore more than one way to solve a problem
- 7 c. Utilize critical thinking to make sense of problems and persevere in solving them
- 8 i. look for and make use of patterns
- 9 ii. try several methods to solve a problem
- 10 d. Plan education and career path aligned to personal goals
- 11 i. identify various careers
- 12

1 CAREER AND TECHNICAL EDUCATION STANDARDS FOR FIRST GRADE

- 2 1. The career and technical education standards for first grade are that each student will:
- 3 a. Act as a responsible and contributing citizen and employee
- 4 i. identify the characteristics of citizenship across jobs and communities
- 5 b. Communicate clearly, effectively, and with reason
- 6 i. recognize effective communication and active listening skills to foster
- 7 positive relationships
- 8 c. Demonstrate creativity and innovation
- 9 i. identify an alternate solution to a problem
- 10 d. Utilize critical thinking to make sense of problems and persevere in solving them
- 11 i. look for and make use of patterns
- 12 ii. try several methods to solve a problem
- 13 e. Plan education and career path aligned to personal goals
- 14 i. identify and describe various careers
- 15 ii. work successfully in small and large groups to accomplish tasks within a
- 16 time frame
- 17 f. Use technology to enhance productivity
- 18 i. explore how technology is used in different jobs and careers
- 19 g. Work productively in teams while using cultural/global competence
- 20 i. explore an awareness of cultural differences to develop a sense of
- 21 inclusion

1 CAREER AND TECHNICAL EDUCATION STANDARDS FOR SECOND GRADE

2 1. The career and technical education standards for second grade are that each student
3 will:

- 4 a. Act as a responsible and contributing citizen and employee
 - 5 i. recognize the rights and responsibilities of citizenship
- 6 b. Communicate clearly, effectively, and with reason
 - 7 i. practice compromise and conflict resolution with support
- 8 c. Consider the environmental, social and economic impacts of decisions
 - 9 i. compare and contrast safety procedures for different environments and
10 tasks
 - 11 ii. identify and explain the reasons for personal protective equipment for
12 personal use
- 13 d. Demonstrate creativity and innovation
 - 14 i. discuss ways people work together to solve problems
- 15 e. Utilize critical thinking to make sense of problems and persevere in solving them
 - 16 i. outline and explain the steps to complete a task
 - 17 ii. try several methods to solve a problem
- 18 f. Model integrity, ethical leadership, and effective management
 - 19 i. describe the role of a leader
- 20 g. Plan education and career path aligned to personal goals
 - 21 i. identify and describe basic work skills that contribute to the success of a
22 team
- 23 h. Use technology to enhance productivity
 - 24 i. investigate how technology in school and at work enhances learning and
25 connections with others
- 26 i. Work productively in teams while using cultural/global competence
 - 27 i. work cooperatively to examine issues from multiple viewpoints

1 CAREER AND TECHNICAL EDUCATION STANDARDS FOR THIRD GRADE

- 2
- 3 1. The career and technical education standards for third grade are that each student will:
- 4 a. Act as a responsible and contributing citizen and employee
- 5 i. identify characteristics of being a productive employee
- 6 b. Attend to personal health and financial well-being
- 7 i. describe how consumer actions influence the use of resources
- 8 c. Communicate clearly, effectively, and with reason
- 9 i. apply active listening, compromise, and conflict resolution skills
- 10 d. Consider the environmental, social and economic impacts of decisions
- 11 i. adapt to different environments by adjusting behavior to promote personal
- 12 and group safety
- 13 ii. identify and explain the reasons for personal protective equipment for
- 14 personal and classroom use
- 15 e. Demonstrate creativity and innovation
- 16 i. explore the design cycle
- 17 f. Employ valid and reliable research strategies
- 18 i. represent data in multiple formats
- 19 g. Utilize critical thinking to make sense of problems and persevere in solving them
- 20 i. compare and explain similarities and differences of patterns and
- 21 operations
- 22 ii. plan and execute activities to develop a solution or complete a project
- 23 iii. test and refine methods to solve a problem
- 24 h. Model integrity, ethical leadership, and effective management
- 25 i. explain how actions and attitudes impact others
- 26 ii. define and give examples of leadership roles
- 27 i. Plan education and career path aligned to personal goals
- 28 i. explore career options that align with a variety of personal interests
- 29 ii. explore how work relates to meeting needs for goods, clothing, shelter,
- 30 and other necessities for living
- 31 j. Use technology to enhance productivity
- 32 i. explain how technology is used in homes, schools, and jobs
- 33 k. Work productively in teams while using cultural/global competence
- 34 i. recognize and understand barriers to productive communication

1 CAREER AND TECHNICAL EDUCATION STANDARDS FOR FOURTH GRADE

- 2
- 3 1. The career and technical education standards for fourth grade are that each student will:
- 4 a. Act as a responsible and contributing citizen and employee
- 5 i. explore consequences of actions in communities and workplace
- 6 b. Attend to personal health and financial well-being
- 7 i. investigate advertising and media that influence behavior
- 8 c. Communicate clearly, effectively, and with reason
- 9 i. practice compromise, consensus, and conflict resolution
- 10 d. Consider the environmental, social and economic impacts of decisions
- 11 i. adapt to different environments by adjusting behavior to promote personal
- 12 and group safety
- 13 ii. predict potential outcomes of various decisions in a complex environment
- 14 iii. identify and explain the consequences of both proper and improper
- 15 personal protective equipment use
- 16 e. Demonstrate creativity and innovation
- 17 i. explore innovations and inventions and their originators
- 18 f. Employ valid and reliable research strategies
- 19 i. map data for a culture, community, or state
- 20 g. Utilize critical thinking to make sense of problems and persevere in solving them
- 21 i. identify models that organize and analyze patterns of information
- 22 ii. test and refine methods to solve a problem
- 23 h. Model integrity, ethical leadership, and effective management
- 24 i. contribute constructively to teams assuming various roles and
- 25 responsibilities to work effectively toward a common goal
- 26 i. Plan education and career path aligned to personal goals
- 27 i. describe how work relates to meeting needs for goods, clothing, shelter,
- 28 and other necessities for living
- 29 ii. prepare personal communications based upon the intended audience
- 30 j. Use technology to enhance productivity
- 31 i. select appropriate tools to create and communicate
- 32 k. Work productively in teams while using cultural/global competence
- 33 i. engage with learners from diverse cultures through use of available
- 34 technology
- 35 ii. explain how personal and cultural histories can influence team
- 36 approaches to completing tasks and projects
- 37
- 38

1 CAREER AND TECHNICAL EDUCATION STANDARDS FOR FIFTH GRADE

- 2 1. The career and technical education standards for fifth grade are that each student will:
- 3 a. Act as a responsible and contributing citizen and employee
- 4 i. identify activities and behaviors that build and strengthen community
- 5 ii. define employability skills
- 6 b. Apply appropriate academic and technical skills
- 7 i. read and comprehend a variety of resources to explain procedures, ideas,
- 8 or concepts in Career Pathways
- 9 ii. construct charts, tables, and graphs using mathematical data
- 10 iii. apply scientific methods including data gathering, direct and indirect
- 11 observation, and prediction to solve workplace problems
- 12 c. Attend to personal health and financial well-being
- 13 i. model the interrelationships between mental, emotional, social, cultural,
- 14 intellectual, and physical health
- 15 d. Communicate clearly, effectively, and with reason
- 16 i. apply safety, responsibility, and ethical use of information to communicate
- 17 knowledge of Career Pathways
- 18 ii. demonstrate employability skills to interact with team members to
- 19 accomplish group goals
- 20 e. Consider the environmental, social and economic impacts of decisions
- 21 i. evaluate the effectiveness of safety procedures for different environments
- 22 and tasks
- 23 f. Demonstrate creativity and innovation
- 24 i. communicate complex ideas in creative ways
- 25 g. Employ valid and reliable research strategies
- 26 i. identify valid data from multiple sources for a variety of career-related
- 27 research projects
- 28 h. Utilize critical thinking to make sense of problems and persevere in solving them
- 29 i. interpret data to observe and explain trends
- 30 ii. compare and contrast multiple approaches to solving a problem or
- 31 completing a project
- 32 iii. test and refine methods to solve a problem
- 33 i. Model integrity, ethical leadership, and effective management
- 34 i. lead a group activity
- 35 j. Plan education and career path aligned to personal goals
- 36 i. explore education expectations for different career options
- 37 ii. performs basic tasks for personal and workplace communication
- 38 k. Use technology to enhance productivity

- 1 i. demonstrate how to work cooperatively and collaboratively with peers
- 2 when using technology tools
- 3 I. Work productively in teams while using cultural/global competence
- 4 i. collaborate across cultures when setting teamwork roles and goals

1 CAREER AND TECHNICAL EDUCATION STANDARDS FOR SIXTH THROUGH
2 EIGHTH GRADES

- 3 1. The career and technical education standards for sixth through eighth grades are that
4 each student will:
- 5 a. Act as a responsible and contributing citizen and employee
 - 6 i. defend choices related to positive, safe, legal, and ethical behavior
 - 7 ii. practice employability skills
 - 8 b. Apply appropriate academic and technical skills
 - 9 i. develop a product using oral, illustrative, or multimedia
 - 10 ii. compose well-organized written documents for the workplace
 - 11 iii. communicate mathematical data using charts, tables, and graphs
 - 12 iv. integrate and translate scientific methods to technical data using oral,
13 written, and multimedia communications
 - 14 c. Attend to personal health and financial well-being
 - 15 i. investigate the connection between work and financial well-being
 - 16 ii. identify how peers positively or negatively influence personal well-being
 - 17 iii. develop a personal budget and savings plan
 - 18 d. Communicate clearly, effectively, and with reason
 - 19 i. apply employability skills to productively interact with all team members to
20 accomplish group goals
 - 21 ii. integrate a variety of multimedia applications to effectively organize and
22 present information
 - 23 e. Consider the environmental, social and economic impacts of decisions
 - 24 i. evaluate peer behaviors and exhibit personal responsibility to promote
25 personal and group safety in all environments
 - 26 ii. identify personal protective equipment for workplace, classroom, and
27 personal use, determining when and where it should be utilized
 - 28 f. Demonstrate creativity and innovation
 - 29 i. develop or modify an existing innovation to improve the workplace
 - 30 g. Employ valid and reliable research strategies
 - 31 i. evaluate the accuracy, credibility, perspective, and relevance of
32 information, media, data and other resources
 - 33 ii. curate information from multiple sources to make meaningful connections
34 and draw conclusions
 - 35 iii. apply fair use and copyright laws
 - 36 h. Utilize critical thinking to make sense of problems and persevere in solving them
 - 37 i. analyze trends to draw conclusions and explore solutions to problems
 - 38 ii. analyze and explain how individual behaviors influence processes and
39 environments

- 1 iii. evaluate resources in testing and refining solutions to problems before
- 2 asking for assistance
- 3 i. Model integrity, ethical leadership, and effective management
- 4 i. examine the importance of professional ethics, cultural, and legal
- 5 responsibilities of the workplace
- 6 ii. evaluate alternative responses to workplace situations
- 7 iii. describe the diversity of workplace environments
- 8 j. Plan education and career path aligned to personal goals
- 9 i. develop programs of study for various Career Pathways, examining
- 10 outlook, salary, education, job duties, and lifestyle
- 11 ii. identify job opportunities, and organize and synthesize information about
- 12 career skills and requirements for applications
- 13 k. Use technology to enhance productivity
- 14 i. explain how scientific and technological changes impact specific careers
- 15 ii. describe the role of technology within a community in maintaining safe
- 16 and healthy environments
- 17 l. Work productively in teams while using cultural/global competence
- 18 i. evaluate local and global challenges
- 19 ii. evaluate diversity and inclusion language in documents and policies

1 CAREER AND TECHNICAL EDUCATION STANDARDS FOR NINTH THROUGH
2 TWELFTH GRADE

- 3 1. The career and technical education standards for ninth through twelfth grades are that
4 each student will:
- 5 a. Act as a responsible and contributing citizen and employee
 - 6 i. engage in positive, safe, legal, and ethical behavior
 - 7 ii. model industry-identified, career-ready skills
 - 8 b. Apply appropriate academic and technical skills
 - 9 i. compose clear and coherent documents and presentations appropriate to
10 task, purpose, and audience
 - 11 ii. demonstrate knowledge of mathematical operations needed to succeed in
12 a selected Career Pathway
 - 13 iii. apply appropriate scientific methods in qualitative and quantitative
14 analysis in a selected Career Pathway
 - 15 c. Attend to personal health and financial well-being
 - 16 i. evaluate validity of health and financial information, products, and
17 services
 - 18 ii. analyze financial practices including budgeting, banking, savings,
19 investments
 - 20 iii. explain significance in achieving personal and business short and long
21 term goals
 - 22 iv. develop financial goals based on lifestyle expectations, education plans,
23 and career choices
 - 24 d. Communicate clearly, effectively, and with reason
 - 25 i. model integrity, ethical leadership, and effective employability skills in all
26 communication
 - 27 ii. evaluate and use information systems to prepare technical documents for
28 the workplace
 - 29 iii. model appropriate strategies for communicating persuasively in
30 professional settings to effectively interact with individuals from various
31 cultural, ethnic, and language backgrounds
 - 32 iv. employ awareness of world cultures and languages in work-based
33 learning opportunities
 - 34 e. Consider the environmental, social and economic impacts of decisions
 - 35 i. design and construct safe working environments according to government
36 and industry standards
 - 37 ii. create plans and policies that reflect deep understanding of individual
38 histories and societal complexities in a work environment

- 1 iii. integrate personal protective equipment use regularly in necessary
- 2 environments
- 3 f. Demonstrate creativity and innovation
- 4 i. design and implement an innovation
- 5 ii. evaluate peer innovations and provide feedback
- 6 g. Employ valid and reliable research strategies
- 7 i. use evidence from multiple sources to defend a position
- 8 ii. determine various research methodologies based on a defined
- 9 problem/purpose
- 10 iii. identify research protocols required to ensure legality, validity, and
- 11 reliability
- 12 h. Utilize critical thinking to make sense of problems and persevere in solving them
- 13 i. devise forecasts or solutions to problems that reflect analysis of trends
- 14 ii. utilize understanding of resources and culture to devise collaborative
- 15 solutions to problems
- 16 iii. utilize multiple resources to test and refine solutions to a problem
- 17 i. Model integrity, ethical leadership, and effective management
- 18 i. apply laws, regulations, and policies to personnel situations that help
- 19 employees perform their jobs according to employer rules and
- 20 expectations
- 21 ii. apply insight to positively influence others' actions, attitudes, and beliefs
- 22 based on the needs of the workplace
- 23 iii. create and modify procedures to most effectively function within laws,
- 24 regulations, and policies
- 25 j. Plan education and career path aligned to personal goals
- 26 i. execute a program of study following a Career Pathway, evaluating the
- 27 opportunities for personal and professional lifelong learning
- 28 ii. explore the benefits of having a personal or career mentor
- 29 iii. construct and complete resumes, applications, and other necessary work-
- 30 related documents
- 31 iv. evaluate job descriptions that align to a selected Career Pathway and the
- 32 necessary skill set
- 33 v. prepare and practice for, and demonstrate skills needed for job interviews
- 34 in a selected Career Pathway
- 35 k. Use technology to enhance productivity
- 36 i. describe how job market changes have resulted from scientific
- 37 advancements and the increased use of technology in the global
- 38 economy

- 1 ii. evaluate the purpose of technology tools and multimedia to analyze their
- 2 impact on productivity in homes, schools and workplaces
- 3 iii. safely and ethically use current industry-standard and emerging
- 4 technologies
- 5 iv. model appropriate communication and technological skills to seek, obtain
- 6 and change jobs/careers
- 7 I. Work productively in teams while using cultural/global competence
- 8 i. collaborate to address geographic, economic, cultural, or political issues
- 9 considering multiple perspectives

CTE DRAFT FOR ECONOMIC IMPACT SURVEY 12.16.19

- 1 ADMINISTRATIVE RULES OF MONTANA CHAPTER 55 PROGRAM DELIVERY
- 2 STANDARDS
- 3 Career and Vocational/Technical Education Program Delivery Standards [10.55.1701](#)

Current ARM	Recommendation	Suggested Modification
(1) In general, a basic program in career and vocational/technical education shall:		
(a) meet the following conditions:		
(i) skill development leading to lifelong pursuits;	Keep as is	
(ii) program development in consultation with an advisory council; and	Keep as is	
(iii) opportunities for authentic application, work experience, and/or articulation with postsecondary education	Keep as is	
(b) include the following practices:		
(i) foster skill development for employment, advanced training, and lifelong learning;	Keep as is	
(ii) input from representatives of business and industry;	Keep as is	
(iii) analysis of skills and knowledge required in paid and non-paid careers;	Keep as is	
(iv) leadership and character development through participation in career and technical student organizations (CTSOs) ;	Keep as is	
(v) progression of skills and knowledge from basic to advanced; and NO CONSENSUS HERE	modify	progression of knowledge and skills from foundational to advanced <i>through a sequence of courses</i> ; and
(vi) integration of career and /technical competencies with academic knowledge in a contextual setting	Keep as is	

Commented [MK2]: NO CONSENSUS HERE. No consensus regarding keeping existing standard OR regarding suggested modification. See meeting minutes for summary of discussion.

4

COMMITTEE MEMBERS

Heather	Jarrett	Reed Point
Roch	Turner	Hamilton
Daniel	Lantis	Hays
Justin	Helvik	Bozeman
J. Glenn	Bradbury	Belgrade
Vaughn	Kauffman	Helena
David	Hood	Helena
David	Pafford	Noxon
Ruthanne	Hansen	Helena
Martha	Potter	Savage
Dee	Hensley-Maclean	Hamilton
Lisa	Fant	Kalispell
Ryan	Schrenk	Lolo
Jolene	Tollenaar	Stevensville
David	Smith	Helena