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## CTE STANDARDS DRAFT FOR NRC 12.3.19

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

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## CTE STANDARDS DRAFT FOR NRC 12.3.19

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- 1 THE 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. identify 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 and describe various careers

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1 THE 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 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. identify strategies to develop a sense of inclusion

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## CTE STANDARDS DRAFT FOR NRC 12.3.19

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### 1 THE 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
  - 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

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## CTE STANDARDS DRAFT FOR NRC 12.3.19

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1 THE 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 an 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. compare career options that align with personal interest
- 29 ii. apply and manage resources efficiently and effectively
- 30 j. Use technology to enhance productivity
- 31 i. explain how technology is used in homes, schools, and jobs
- 32 k. Work productively in teams while using cultural/global competence
- 33 i. identify and mitigate barriers to productive communication

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## CTE STANDARDS DRAFT FOR NRC 12.3.19

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### 1 THE 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 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 improper personal protective
- 15 equipment use
- 16 e. Demonstrate creativity and innovation
- 17 i. explore innovations and their creators
- 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. explain how personal and cultural histories can influence team
- 23 approaches to completing tasks and projects
- 24 iii. test and refine methods to solve a problem
- 25 h. Model integrity, ethical leadership, and effective management
- 26 i. contribute constructively to teams assuming various roles and
- 27 responsibilities to work effectively toward a common goal
- 28 i. Plan education and career path aligned to personal goals
- 29 i. explore education requirements for different career options
- 30 ii. prepare personal communications based upon the intended audience
- 31 j. Use technology to enhance productivity
- 32 i. select appropriate tools to create and communicate
- 33 k. Work productively in teams while using cultural/global competence
- 34 i. engage with learners from diverse cultures through use of available
- 35 technology
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## CTE STANDARDS DRAFT FOR NRC 12.3.19

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### 1 THE 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. describe how work relates to meeting needs for goods, clothing, shelter,
    - 37 and other necessities for living
    - 38 ii. performs basic tasks for personal and workplace communication
  - 39 k. Use technology to enhance productivity
    - 40 i. demonstrate how to work cooperatively and collaboratively with peers
    - 41 when using technology tools
  - 42 l. Work productively in teams while using cultural/global competence
    - 43 i. collaboratively set teamwork roles and goals

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## CTE STANDARDS DRAFT FOR NRC 12.3.19

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1 THE CAREER AND TECHNICAL EDUCATION STANDARDS FOR SIXTH THROUGH EIGHTH  
2 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, pictorial, 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 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
    - 40 iii. evaluate resources in testing and refining solutions to problems before  
41 asking for assistance
  - 42 i. Model integrity, ethical leadership, and effective management



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

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## CTE STANDARDS DRAFT FOR NRC 12.3.19

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1 THE 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
    - 39 iii. integrate personal protective equipment use regularly in necessary  
40 environments
  - 41 f. Demonstrate creativity and innovation
    - 42 i. design and implement an innovation to improve the workplace
    - 43 ii. evaluate peer innovations and provide feedback

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- 1 g. Employ valid and reliable research strategies
- 2     i. use evidence from multiple sources to defend a position
- 3     ii. determine various research methodologies based on a defined
- 4         problem/purpose
- 5     iii. identify research protocols required to ensure legality, validity, and
- 6         reliability
- 7 h. Utilize critical thinking to make sense of problems and persevere in solving them
- 8     i. devise forecasts or solutions to problems that reflect analysis of trends
- 9     ii. utilize understanding of resources and culture to devise collaborative
- 10         solutions to problems
- 11     iii. utilize multiple resources to test and refine solutions to a problem
- 12 i. Model integrity, ethical leadership, and effective management
- 13     i. apply laws and regulations to personnel situations to help employees
- 14         perform their jobs according to employer rules and expectations
- 15     ii. apply insight to positively influence others' actions, attitudes, and beliefs
- 16         based on the needs of the workplace
- 17 j. Plan education and career path aligned to personal goals
- 18     i. execute a program of study following a career pathway, evaluating the
- 19         opportunities for personal and professional lifelong learning
- 20     ii. explore the benefits of having a personal or career mentor
- 21     iii. construct applications, resumes, and necessary work-related documents
- 22 k. Use technology to enhance productivity
- 23     i. describe how job market changes have resulted from scientific
- 24         advancements and the increased use of technology in the global
- 25         economy
- 26     ii. evaluate the purpose of technology tools and multimedia to analyze their
- 27         impact on productivity in homes, schools and workplaces
- 28     iii. safely and ethically use current industry-standard and emerging
- 29         technologies
- 30     iv. model appropriate communication and technological skills to seek, obtain
- 31         and change jobs/careers
- 32 l. Work productively in teams while using cultural/global competence
- 33     i. collaborate to address geographic, economic, cultural, or political issues
- 34         considering multiple perspectives

# CTE STANDARDS DRAFT FOR NRC 12.3.19

- 1 Administrative Rules of Montana Chapter 55
- 2 CAREER AND /TECHNICAL EDUCATION PROGRAM DELIVERY STANDARDS
- 3 [10.55.1701](#)

Current ARM	Recommendation	Suggested Modification
(1) In general, a basic program in career and /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	modify	progression of knowledge and skills from foundational to advanced through a sequence of courses; and
(vi) integration of career and /technical competencies with academic knowledge in a contextual setting	Keep as is	

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