

# Montana Content Standards Met by this Unit

*Standards and benchmarks not met by this unit have been excluded.*

## Montana Standards for Science

**Science Content Standard 3: Students demonstrate knowledge of characteristics, structures, and function of living things, the process and diversity of life, and how living organisms interact with each other and their environment.**

### Benchmarks:

#### End of Grade 4

1. Identify that plants and animals have structures and systems, which serve different functions.
3. Develop models that trace the life cycles of different plants and animals and discuss how they differ from species to species.
4. Explain cause and effect relationships in living systems and nonliving components within ecosystems.
5. Create and use a classification system to group a variety of plants and animals according to their similarities and differences.

#### End of Grade 8

2. Explain how organisms and systems of organisms obtain and use energy resources to maintain stable conditions and how they respond to stimuli (e.g., photosynthesis, respiration).
4. Investigate and explain the interdependent nature of biological systems in the environment and how they are affected by human interaction.
5. Use a basic classification scheme to identify local plants and animals

#### Upon Graduation-End of Grade 12

5. Apply a biological classification scheme to infer and discuss the degree of species divergence using local ecosystems.

**Science Content Standard 4: Students demonstrate knowledge of the composition, structures, processes, and interactions of Earth's systems and other objects in space.**

### Benchmarks:

#### End of Grade 4

2. Describe the physical properties of Earth's basic materials (including soil, rocks, water, and gases).

**Science Content Standard 5: Students understand how scientific knowledge and technological developments impact society.**

### Benchmarks:

#### End of Grade 4

1. Give examples of how people use science and technology.
2. Model scientific collaboration by sharing and communicating ideas and solutions in a variety of cooperative settings.
3. Use current scientific knowledge to make inferences and propose solutions for local environmental problems (recycling, waste management).
4. Identify a scientific or technological innovation that benefits the community.

#### End of Grade 8

1. Identify the specific fields of scientific endeavor and related occupations within those fields.
2. Model collaborative problem solving and give examples of how scientific knowledge is shared, critiqued, and scrutinized by other scientists and the public.
3. Investigate local problems and/or issues and propose solutions or products that address a need, which considers variables (e.g. environmental risks).
4. Apply scientific knowledge and process skills to understand issues and everyday events.

#### Upon Graduation-End of Grade 12

3. Analyze benefits, limitations, costs, consequences, and ethics involved in using scientific and technological innovations to make reasoned decisions.
4. Give examples of scientific innovation challenging commonly held perceptions.

# Montana Standards for Mathematics

**Mathematics Content Standard 1: Students engage in the mathematical processes of problem solving and reasoning, estimation, communication, connections and applications, and using appropriate technology.**

**Benchmarks:**

**End of Grade 4**

3. Communicate mathematical ideas in a variety of ways (e.g., written, verbal, concrete, pictorial, graphical, algebraic).

4. Recognize and investigate the relevance and usefulness of mathematics through applications, both in and out of school.

**End of Grade 8**

1. Formulate and solve multi-step and non-routine problems using a variety of strategies. Generalize methods to new problem situations.

3. Interpret and communicate mathematical ideas and logical arguments using correct mathematical terms and notations.

4. Recognize and investigate the relevance and usefulness of mathematics through applications, both in and out of school.

**Upon Graduation-End of Grade 12**

1. Recognize and formulate problems from situations within and outside mathematics and apply solution strategies to those problems.

4. Apply and translate among different representations of the same problem situation or of the same mathematical concept. Model connections between problem situations that arise in disciplines other than mathematics.

**Mathematics Content Standard 3: Students use algebraic concepts, processes, and language to model and solve a variety of real-world and mathematical problems.**

**Benchmarks:**

**End of Grade 4**

1. Use symbols (e.g., boxes or letters) to represent numbers in simple situations.

3. Use inverse operations and other strategies to solve number sentences.

**End of Grade 8**

1. Understand the concepts of variable, expression, and equation.

2. Represent situations and number patterns using tables, graphs, verbal rules, equations, and models.

4. Solve linear equations using concrete, numerical, and algebraic methods.

5. Investigate inequalities and nonlinear relationships informally.

**Upon Graduation-End of Grade 12**

1. Use algebra to represent patterns of change.

2. Use basic operations with algebraic expressions.

3. Solve algebraic equations and inequalities: linear, quadratic, exponential, logarithmic, and power.

5. Use algebraic models to solve mathematical and real-world problems.

**Mathematics Content Standard 5: Students demonstrate understanding of measurable attributes and an ability to use measurement processes.**

**Benchmarks:**

**End of Grade 4**

1. Estimate, measure, and investigate length, capacity, weight, mass, area, volume, time, and temperature.

2. Develop the process of measuring and concepts related to units of measurement, including standard units (English and metric) and nonstandard units.

3. Apply measurement skills to everyday situations.

4. Select and use appropriate tools and techniques.

**End of Grade 8**

2. Select and use appropriate units and tools to measure to a level of accuracy required in a particular setting.

3. Apply the concepts of perimeter, area, volume & capacity, weight & mass, angle measure, time, and temperature.

5. Use the concepts of rates and other derived and indirect measurements.

6. Demonstrate relationships between formulas and procedures for determining area and volume.

**Upon Graduation-End of Grade 12**

3. Investigate systems of derived measures (e.g., km/sec, g/cm<sup>3</sup>).

**Mathematics Content Standard 6: The students demonstrate understanding of and an ability to use data analysis, probability, and statistics.**

**Benchmarks:**

**End of Grade 4**

1. Collect, organize, and display data.
2. Construct, read, and interpret displays of data, including graphs.
3. Formulate and solve problems that involve collecting and analyzing data.

**End of Grade 8**

1. Systematically collect, organize, and describe data.
2. Construct, read, and interpret tables, charts, and graphs.
3. Draw inferences, construct and evaluate arguments based on data analysis and measures of central tendency.

**Upon Graduation-End of Grade 12**

5. Design a statistical experiment to study a problem and communicate the outcomes.

**Mathematics Content Standard 7: Students demonstrate understanding of and an ability to use patterns, relations, and functions.**

**Benchmarks:**

**End of Grade 8**

2. Describe and represent relationships with tables, graphs, and rules.

**Upon Graduation-End of Grade 12**

4. Model real-world phenomena with a variety of functions.

## Montana Standards for Social Studies

**Social Studies Content Standard 1: Students access, synthesize, and evaluate information to communicate and apply social studies knowledge to real world situations.**

**Benchmarks:**

**End of Grade 4**

1. Identify and practice the steps of an inquiry process (i.e., identify questions or problem, locate and evaluate potential resources, gather and synthesize information, create a new product, and evaluate product and process).
2. Evaluate information quality (e.g., accuracy, relevance, fact or fiction).
3. Use information to support statements and practice basic group decision-making strategies in real world situations (e.g., class elections, playground and classroom rules, recycling projects, school stores).

**End of Grade 8**

1. Apply the steps of an inquiry process (i.e., identify question or problem, locate and evaluate potential resources, gather and synthesize information, create a new product, and evaluate product and process).
2. Assess the quality of information (e.g., primary or secondary sources, point of view, and embedded values of the author).
3. Interpret and apply information to support conclusions and use group decision-making strategies to solve problems in real world situations (e.g., school elections, community projects, conflict resolution, role playing scenarios).

**Upon Graduation-End of Grade 12**

1. Analyze and adapt an inquiry process (i.e., identify question or problem, locate and evaluate potential resources, gather and synthesize information, create a new product, and evaluate product and process).
2. Apply criteria to evaluate information (e.g., origin, authority, accuracy, bias, and distortion of information and ideas).
3. Synthesize and apply information to formulate and support reasoned personal convictions within groups and participate in negotiations to arrive at solutions to differences (e.g., election, judicial proceeding, economic choices, community service projects)

**Social Studies Content Standard 3: Students apply geographic knowledge and skills (e.g., location, place, human/environment interactions, movement, and regions).**

**Benchmarks:**

**End of Grade 4**

1. Identify and use various representations of the Earth (e.g., maps, globes, photographs, latitude and longitude, scale).
2. Locate on a map or globe physical features (e.g., continents, oceans, mountain ranges, land forms), natural features (e.g., flora, fauna), and human features (e.g., cities, states, national borders).
3. Describe and illustrate ways in which people interact with their physical environment (e.g., land use, location of communities, methods of construction, design of shelters).
5. Use appropriate geographic resources (e.g., atlases, databases, charts, grid systems, technology, graphs, maps) to gather information about local communities, reservations, Montana, the United States, and the world.
7. Describe and compare the ways in which people in different regions of the world interact with their physical environments.

**End of Grade 8**

1. Analyze and use various representations of the Earth (e.g., physical, topographical, political maps; globes; geographic information systems; aerial photographs; satellite images) to gather and compare information about a place.
2. Locate on a map or globe physical features (e.g., continents, oceans, mountain ranges, land forms), natural features (e.g., flora, fauna), and human features (e.g., cities, states, national borders) and explain their relationships within the ecosystem.
3. Analyze diverse land use and explain the historical and contemporary effects of this use on the environment, with an emphasis on Montana.
5. Use appropriate geographic resources to interpret and generate information explaining the interaction of physical and human systems (e.g., estimate distance, calculate scale, identify dominant patterns of climate and land use, compute population density).
7. Describe major changes in a local area that have been caused by human beings (e.g., a new highway, a fire, construction of a new dam, logging, mining) and analyze the probable effects on the community and environment.

**Upon Graduation-End of Grade 12**

1. Interpret, use, and synthesize information from various representations of the Earth (e.g., maps, globes, satellite images, geographic information systems, three-dimensional models).
2. Differentiate and analyze the relationships among various regional and global patterns of geographic phenomena (e.g., land forms, soils, climate, vegetation, natural resources, population).
3. Assess the major impacts of human modifications on the environment (e.g., global warming, deforestation, erosion, pollution).
4. Analyze how human settlement patterns create cooperation and conflict which influence the division and control of the Earth (e.g., treaties, economics, exploration, borders, religion, exploitation, water rights).
5. Select and apply appropriate geographic resources to analyze the interaction of physical and human systems (e.g., cultural patterns, demographics, unequal global distribution of resources) and their impact on environmental and societal changes.
7. Describe and compare how people create places that reflect culture, human needs, government policy, and current values and ideas as they design and build (e.g., buildings, neighborhoods, parks, industrial and agricultural centers, farms/ranches).

# Montana Standards for Writing

## Writing Content Standard 1: Students write clearly and effectively.

### Benchmarks:

#### End of Grade 4

1. Organize text in paragraphs with clear beginning, middle, and end.
2. Develop a main idea through some supporting details.
3. Demonstrate awareness of personal voice, sentence structure, and word choice.
4. Apply conventions of standard written English (e.g., spelling, punctuation, usage) appropriate for grade level and purpose.

#### End of Grade 8

1. Organize text in paragraphs with clear beginning, middle, and end, using transitions and logical sequence.
2. Develop a main idea through relevant supporting details.
3. Demonstrate some control of personal voice, sentence structure, and word choice.
4. Apply conventions of standard written English (e.g., spelling, punctuation, usage) appropriate for grade level and purpose.

#### Upon Graduation-End of Grade 12

1. Organize text in paragraphs with clear beginning, middle, and end, using effective transitions and logical sequence.
2. Develop and elaborate main ideas through relevant and specific supporting details.
3. Demonstrate purposeful control of personal voice, sentence structure, and word choice.
4. Apply conventions of standard written English (e.g., spelling, punctuation, usage) appropriate for grade level and purpose.

## Writing Content Standard 2: Students apply a range of skills and strategies in the writing process.

### Benchmarks:

#### End of Grade 4

1. Plan writing by generalizing and organizing ideas and by considering purpose and audience.
2. Write a draft that captures and organizes ideas.
3. Revise writing at the word, sentence, and paragraph levels using feedback and guidance from others.
4. Edit, with assistance, by correcting errors (e.g., grammar, capitalization, punctuation, spelling, usage).
5. Share/publish a legible final product.

#### End of Grade 8

1. Plan writing by generating and organizing ideas through a variety of strategies and by considering purpose and audience.
2. Write one or more drafts that capture and organize ideas.
3. Revise writing at the word, sentence, and paragraph levels using feedback from others.
4. Edit, with some assistance, by correcting errors (e.g., grammar, capitalization, punctuation, spelling, usage).
5. Share/publish a legible final product.

#### Upon Graduation-End of Grade 12

1. Plan writing by generating ideas through a variety of strategies, and organizing by analyzing purpose and audience.
2. Write one or more drafts that capture, explore, and organize ideas.
3. Revise writing by seeking feedback from others and making appropriate changes to improve text.
4. Edit by correcting errors (e.g., grammar, capitalization, punctuation, spelling usage).
5. Share/publish a legible final product.

## Writing Content Standard 4: Students write for a variety of purposes and audiences.

### Benchmarks:

#### End of Grade 4

1. Identify the purpose for their writing and write appropriately.
2. Choose audiences (e.g., self, peers, adults) appropriate to purposes and topics.
3. Experience writing in different genres (e.g., descriptive writing).

#### End of Grade 8

1. Identify and articulate the purpose for their writing and write appropriately.
2. Choose audiences (e.g., self, peers, adults) appropriate to purposes and topics.
3. Experience writing in different genres (e.g., narrative writing).

#### Upon Graduation-End of Grade 12

1. Identify and articulate the purpose for their writing and write appropriately.
2. Choose audiences (e.g., self, peers, adults) appropriate to purposes and topics.
3. Experience writing in various genres (e.g., expository and persuasive writing).

## **Writing Content Standard 6: Students use the inquiry process, problem-solving strategies, and resources to synthesize and communicate information.**

### **Benchmarks:**

#### **End of Grade 4**

1. Pose questions or identify problems.
2. Use selected technologies and information sources.
3. Identify explanations or solutions, and draw a conclusion based on the information.
4. Share information in appropriate ways for intended audiences.

#### **End of Grade 8**

1. Pose questions or identify problems.
2. Find and use a variety of technologies and information sources.
3. Identify several explanations or solutions, and draw conclusions based on their analysis of the information.
4. Share information in appropriate ways for intended audiences.

#### **Upon Graduation-End of Grade 12**

1. Pose questions or identify problems.
2. Find, evaluate, and use a variety of technologies and information sources.
3. Identify and investigate alternative explanations or solutions, and use criteria to draw and defend conclusions based on their analysis and evaluation of the information.
4. Share information in appropriate ways for intended audiences.

## **Montana Standards for Speaking and Listening**

### **Speaking and Listening Content Standard 2: Students distinguish among and use appropriate types of speaking and listening for a variety of purposes.**

#### **Benchmarks:**

#### **End of Grade 4**

2. Demonstrate appropriate speaking and listening behaviors in communicating with peers and others in formal and informal classroom situations.
3. Speak and listen effectively for a range of purposes (e.g., reading aloud and listening to oral readings, sharing and listening to personal experiences, presenting and listening to oral reports, clearly giving and understanding directions and instructions).
4. Identify and appropriately use different types of presentations (e.g., storytelling, narrative, description).
5. Identify and use different types of listening appropriate to the listening situation (e.g., casual, appreciative, attentive).

#### **End of Grade 8**

2. Demonstrate appropriate speaking and listening behaviors in communicating with various audiences.
3. Speak and listen effectively for an expanded range of purposes (e.g., giving and understanding information, presenting and appreciating creative performances, delivering and analyzing persuasive messages).
4. Identify and appropriately use different types of presentations (e.g., reports, expository speeches, dramatic presentations, persuasive appeals).
5. Identify and use different types of listening appropriate to the listening situation (e.g., interpretive and empathic listening).

#### **Upon Graduation-End of Grade 12**

2. Demonstrate effective adjustment of speaking and listening behaviors in communicating with various audiences.
3. Speak and listen effectively for a broad range of purposes (e.g., delivering and evaluating entertaining or inspiring messages, presenting and critically evaluating problems and solutions).
4. Identify and use different types of presentations appropriate to the purpose for speaking (e.g., impromptu, extemporaneous, manuscript, memorized deliveries, interpersonal endeavors).
5. Identify and use different types of listening appropriate to the listening situation (e.g., critical listening).

## **Speaking and Listening Content Standard 3: Students apply a range of skills and strategies to speaking and listening.**

### **Benchmarks:**

#### **End of Grade 4**

1. Communicate in a focused and organized manner.
2. Select and use appropriate verbal language to convey intended meaning.
3. Identify and begin to use appropriate verbal and nonverbal skills to enhance presentations and manage communication anxiety.
4. Monitor understanding by identifying and using strategies (e.g., asking relevant questions and restating information).
5. Distinguish new from familiar material, significant from insignificant information, fact from opinion, and fantasy from reality.
8. Identify, anticipate, and manage barriers to listening.

#### **End of Grade 8**

1. Communicate with a clear purpose, well-developed organization, and support from a variety of sources.
2. Use verbal language appropriate to occasion, audience, and topic.
3. Explain and appropriately use verbal and nonverbal skills to enhance presentations and manage communication anxiety.
4. Monitor understanding by identifying and using strategies (e.g., inquiring, taking notes, summarizing oral and visual clues).
5. Distinguish information from persuasion, and logic from emotion.
8. Identify, anticipate, and manage barriers to listening.

#### **Upon Graduation-End of Grade 12**

1. Communicate with an identifiable thesis, logically developed points with appropriate supporting resources, and clear sequencing of ideas and transitions.
2. Use informal, standard, and technical verbal language effectively to fit the purpose, audience, occasion, and task.
3. Apply, analyze, and evaluate effective verbal and nonverbal skills to enhance presentations and manage communication anxiety.
4. Monitor understanding by identifying and using strategies (e.g., asking probing questions, paraphrasing, interpreting, evaluating oral and visual clues).
5. Recognize and analyze points of view, purposes, emotional appeals, and logical fallacies in verbal and nonverbal messages.
8. Identify, anticipate, and manage barriers to listening.

## **Montana Standards for Reading**

### **Reading Content Standard 1: Students construct meaning as they comprehend, interpret, and respond to what they read.**

#### **Benchmarks:**

#### **End of Grade 4**

2. Incorporate new print/non-print information into existing knowledge to draw conclusions and make application.
4. Demonstrate basic understanding of main ideas and some supporting details.

#### **End of Grade 8**

2. Compare and contrast important print/non-print information with existing knowledge to draw conclusions and make application.
4. Demonstrate understanding of main ideas and select important supporting facts and details.

#### **Upon Graduation-End of Grade 12**

2. Integrate new important print/non-print information with their existing knowledge to draw conclusions and make application.
4. Demonstrate understanding of main ideas and formulate arguments using supporting evidence.

**Reading Content Standard 4: Students select, read, and respond to print and non-print material for a variety of purposes.**

**Benchmarks:**

**End of Grade 4**

2. Solve a problem or answer a question through reading (e.g., signs, labels, instruction).

6. Read and interpret information from a variety of documents and sources (e.g., memos, directories, maps, tables, schedules, as well as other technological material).

**End of Grade 8**

2. Read to organize and understand information, and to use material to investigate a topic (e.g., reference material, manuals, public documents, newspapers, magazines, and electronic information).

7. Identify, locate, read, and interpret information from a variety of documents and sources (e.g., graphs, tables, policy statements, television, Internet).

**Upon Graduation-End of Grade 12**

2. Read to evaluate appropriate resource material for a specific task.

3. Locate, read, analyze, and interpret material to investigate a question, topic, or issue (e.g., reference material, pamphlets, book excerpts, articles, letters, and electronic information).

7. Locate, read, analyze, and evaluate information from a variety of sources (e.g., manuals, instructions, flowcharts, television, Internet).

**Reading Content Standard 5: Students gather, analyze, synthesize, and evaluate information from a variety of sources, and communicate their findings in ways appropriate for their purposes and audiences.**

**Benchmarks:**

**End of Grade 4**

1. Identify and summarize similarities and differences using a single element (e.g., character) within a text and between sources of information.

2. Make connections, integrate, and organize information from multiple sources.

3. Recognize authors' points of view.

4. Distinguish fact from opinion in various print and non-print material.

**End of Grade 8**

1. Compare and contrast information and textual elements in print and non-print material.

2. Make connections, explain relationships among a variety of sources, and integrate similar information.

3. Recognize authors' points of view and purposes.

4. Recognize authors' use of language and literary devices to influence readers.

5. Recognize, express, and defend a point of view.

**Upon Graduation-End of Grade 12**

1. Compare and contrast information and broad themes within and among a variety of information sources.

2. Logically synthesize information from a complex range of print and non-print sources.

3. Apply basic principles of formal logic to print and non-print material.

4. Analyze use of evidence, logic, language devices, and bias as strategies to influence readers.

# Montana Standards for Literature

**Literature Content Standard 1: Students construct meaning as they comprehend, interpret, analyze, and respond to literary works.**

**Benchmarks:**

**End of Grade 4**

2. Identify main ideas and some supporting details of literary works.

**End of Grade 8**

2. Identify and comprehend the main idea and supporting facts and details, and summarize ideas in own words.

5. Draw inferences and conclusions based on literary works.

6. Respond to literary works on the basis of personal insights and respect the different responses of others.

**Literature Content Standard 5: Students use literary works to enrich personal experience and to connect to the broader world of ideas, concepts, and issues.**

**Benchmarks:**

**Upon Graduation-End of Grade 12**

1. Examine, explain, and evaluate various perspectives concerning community, national, and world issues reflected in literary works.

# Montana Standards for Career and Vocational Technical Education

**Career and Vocational/Technical Education Content Standard 4: Students acquire and demonstrate current technical skill leading to an occupation.**

**Benchmarks:**

**End of Grade 8**

2. Practice safe and appropriate use of technology.

3. Identify and use the appropriate tools and equipment for the task.

4. Identify and demonstrate appropriate care of technological tools.

5. Follow basic technical instruction.

**Upon Graduation-End of Grade 12**

1. Practice technical skills and procedures required for an occupation.

2. Practice safe and appropriate use of technology.

3. Select the appropriate tools, equipment, and procedures for the task.

4. Manage and maintain technological tools and follow troubleshooting protocol.

**Career and Vocational/Technical Education Content Standard 5: Students know and demonstrate the requirements of the workplace through authentic application.**

**Benchmarks:**

**End of Grade 8**

- 1. Apply academic and technical skills to a class project.
- 4. Use acceptable industry standard equipment in a school setting.

**Upon Graduation-End of Grade 12**

- 4. Use acceptable industry standard equipment in a school setting.

**Montana Standards for Workplace Competencies**

**Workplace Competencies Standard 1: Students identify, organize, plan, and allocate workplace resources of time, money, materials, facilities, and human resources.**

**Benchmarks:**

**End of Grade 4**

- 1. Manage time effectively (e.g., assignment notebook, calendar).
- 3. Acquire, store, allocate, and use materials or space (e.g., supplies, notebook).
- 4. Manage personal resources.

**End of Grade 8**

- 1. Create and manage plans/schedules with specific timelines that take into account constraints, priorities, and goals.
- 3. Acquire, store, allocate, and use materials or space.
- 4. Manage personal and team resources to achieve personal and team goals.

**Upon Graduation-End of Grade 12**

- 1. Select goal-relevant activities, rank them, allocate time, and prepare and follow schedules.
- 3. Allocate and evaluate time, materials, facilities, and resources to set and achieve goals.
- 4. Assess skills and distribute work accordingly, evaluate performance and provide feedback toward the accomplishment of personal and team goals.

**Workplace Competencies Standard 2: Students acquire and demonstrate interpersonal workplace skills.**

**Benchmarks:**

**End of Grade 4**

- 1. Practice one's role as an active and cooperative team player while recognizing individual differences and cultural diversity (e.g., be accountable for one's actions).
- 2. Demonstrate a learned skill to peers (e.g., give a "how to" demonstration).
- 4. Identify and practice negotiation skills and conflict resolution in structured situations.

**End of Grade 8**

- 1. Use a variety of skills to work as a member of a team while recognizing individual differences and cultural diversity (e.g., listening skills).
- 2. Demonstrate a learned skill and teach others.
- 4. Work toward agreements that include exchanging specific resources or resolving divergent interests in structured and unstructured situations.

**Upon Graduation-End of Grade 12**

- 1. Practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity.
- 2. Demonstrate and teach a learned skill including performance evaluation of self and others in this process.
- 3. Communicate ideas to justify position, persuade and convince others, and responsibly challenge existing procedures and policies.
- 4. Practice and evaluate negotiating process including researching, goal setting, presenting, listening, clarifying, adjusting, and compromising.

## **Workplace Competencies Standard 3: Students acquire and use workplace information.**

### **Benchmarks:**

#### **End of Grade 4**

3. Use a variety of methods (e.g., oral, written, graphic, pictorial, multimedia) to complete a task.

4. Access and organize information from print and electronic sources.

#### **End of Grade 8**

3. Select and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia).

4. Acquire, organize, communicate, process, and analyze information from print and electronic sources.

#### **Upon Graduation-End of Grade 12**

3. Select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia).

4. Acquire, organize, communicate, process, analyze, and evaluate information from print and electronic sources.

## **Montana Standards for Library Media**

### **Library Media Content Standard 1: Students understand an inquiry process including how to access, evaluate, and use information.**

#### **Benchmarks:**

#### **End of Grade 4**

1. Identify the steps of the inquiry process as it is used in research (i.e., identify the question or problem, locate and evaluate potential resources, gather and synthesize information, create a new product, and evaluate the product and process).

2. State the question or need for information.

3. Identify and locate probable sources of information.

4. Judge information for accuracy, relevancy, and type (e.g., fact or fiction).

5. Identify and use information to create a product that satisfies the need or solves the problem.

6. Recognize that they have followed an inquiry process and describe how well their products satisfy the need or solve the problem.

#### **End of Grade 8**

1. Apply steps of the inquiry process to satisfy both academic and personal information needs (i.e., identify the question or problem, locate and evaluate potential resources, gather and synthesize information, create a new product, and evaluate the product and process).

2. Focus the information need as it relates to what they already know to formulate specific questions.

3. Select multiple print and non-print sources using various search strategies (e.g., human guidance, reflective thinking, Boolean operatives).

4. Recognize point of view or bias, use primary and secondary sources, and analyze and evaluate information for specific needs.

5. Interpret and use information in original products or presentations.

6. Apply criteria to determine how well the research process, products, and conclusions meet the original need for information.

#### **Upon Graduation-End of Grade 12**

1. Analyze and adapt the inquiry process to satisfy individual and group information needs (i.e., identify the question or problem, locate and evaluate potential resources, gather and synthesize information, create a new product, and evaluate the product and process).

2. Refine and revise the information needed to meet the specific format, purpose, and scope of the project.

3. Develop a plan to obtain needed information using a variety of research and investigative strategies (e.g., interviews, questionnaires, experiments, surveys).

4. Assess information sources using multiple criteria (e.g., coverage, misleading presentation, and manipulated data).

5. Synthesize information to create a new product that meets a specific purpose or vision.

6. Critique the process and the product of the inquiry.

**Library Media Content Standard 2: Students demonstrate an understanding of ethical, legal, and social responsibility in accessing, evaluating, and using information, materials, and technology.**

**Benchmarks:**

**End of Grade 4**

1. Demonstrate individual responsibility for equitable access to information (e.g., share access to limited resources, return materials diligently).

2. State the conclusion of his/her research finding in his/her own words and cite his/her sources.

3. Follow school guidelines for responsible use of information resources (e.g., check out policies and library media).

4. Share knowledge and information with others.

**End of Grade 8**

2. Recognize and apply concepts of intellectual property rights, avoid plagiarism, follow bibliographic form and cite all information sources used.

3. Follow school guidelines for responsible use of information resources (e.g., circulation policies, acceptable use policies).

**Upon Graduation-End of Grade 12**

2. Use information in an ethical manner by adhering to copyright laws, requesting permission to use information, and properly citing sources).

3. Follow school guidelines for responsible use of information resources (e.g., circulation policies, acceptable use policies).

**Library Media Content Standard 4: Students distinguish among, evaluate, and appropriately use current and emerging media and technologies in the inquiry process.**

**Benchmarks:**

**End of Grade 4**

1. Identify and use various media and technologies to meet information needs.

2. Identify and use search strategies to locate information in various media and technologies.

3. Compare and contrast the quality and accuracy, relevancy, and type of information from a variety of media and technologies.

**End of Grade 8**

1. Select and apply appropriate media and technologies to meet information needs.

2. Select and refine appropriate search strategies to locate information in various media and technologies.

3. Apply criteria to evaluate the point of view and embedded values in information from a variety of media and technologies.

**Upon Graduation-End of Grade 12**

1. Analyze and evaluate various media and technologies when applying information necessary to complete a specific task.

2. Develop and demonstrate research strategies to effectively locate information in various media and technologies.

3. Generate and apply criteria to evaluate the origin, authority, accuracy, bias, and distortion of information from a variety of media and technologies.