



## 4th Grade Learner Expectations for the 2<sup>nd</sup> Trimester

As a result of their schooling,  
students will be able to:

**Highlighted evidence outcomes** represent priority content for the 2020-2021 school year.

### Reading, Writing, and Communicating

- **Effectively discusses content using speaking and listening skills**
  - Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.
  - Identify the reasons and evidence a speaker provides to support particular points.
- **Reads and understands grade level literature**
  - Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
  - Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (for example: verse, rhythm, meter) and drama (for example, casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.
  - Compare and contrast the treatment of similar themes and topics (for example: opposition of good and evil) and patterns of events (for example: the quest) in stories, myths, and traditional literature from different cultures.
- **Reads and understands grade level informational text**
  - Determine the main idea of a text and explain how it is supported by key details; summarize the text.
  - Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.
- **Uses strategies to read complex words and find their meaning**
  - Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (for example, roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
  - Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression.
  - Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (for example: telegraph, photograph, autograph).
  - Read multisyllabic words with and without inflectional and derivational suffixes.
  - Explain the meaning of simple similes and metaphors (for example, as pretty as a picture) in context.
- **Uses the writing process to create stories and persuasive pieces**
  - Write opinion pieces on topics or texts, supporting a point of view with reasons and information
  - 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.
  - Provide reasons that are supported by facts and details.
  - Link opinion and reasons using words and phrases (for example: for instance, in order to, in addition).
  - Provide a concluding statement or section related to the opinion presented.
- **Uses the writing process and sources to create informational texts**
  - No evidence outcomes mastered during trimester for this indicator
- **Uses correct grade level grammar, punctuation, and spelling**
  - Form and use prepositional phrases.
  - Correctly use frequently confused words (for example: to, too, two, there, their).
  - Use commas and quotation marks to mark direct speech and quotations from a text.)
  - Use a comma before a coordinating conjunction in a compound sentence.

- Choose punctuation for effect.

- **Conducts and presents research from multiple sources**
  - No evidence outcomes mastered during trimester for this indicator.
- **Builds reasoning and problem solving skills**
  - No evidence outcomes mastered during trimester for this indicator.

### Math

- **Generalize place value understanding for multi-digit whole numbers**
  - No evidence outcomes mastered during trimester for this indicator.
- **Use properties of operations to perform multi-digit arithmetic**
  - No evidence outcomes mastered during trimester for this indicator
- **Extend understanding of fraction equivalence and ordering**
  - 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. Use this principle to recognize and generate equivalent fractions.
  - 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.
- **Perform operations with fractions and compare decimals**
  - Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
  - Decompose a fraction into a sum of fractions with like denominators in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples:  $3/8 = 1/8 + 1/8 + 1/8$ ;  $3/8 = 1/8 + 2/8$ ;  $2 \frac{1}{8} = 1 + 1/8 = 8/8 + 8/8 + 1/8$ .
  - 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.
  - Solve word problems 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.
  - 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  $5/4 = 5 \times 1/4$ .
  - 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,  $n \times a/b = [n \times a]/b$ .) (CCSS: 4.NF.B.4.b)
  - Solve word problems 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 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?
- **Use the four operations with whole numbers to solve problems**
  - 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. Represent verbal statements of multiplicative comparisons as multiplication equations.
  - 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.
  - Solve multistep word problems posed 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. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

- **Gain familiarity with factors, prime, and composite numbers**
  - 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 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
- **Generate and analyze patterns**
  - No evidence outcomes mastered during trimester for this indicator.
- **Solve problems involving measurement and conversion of measurements**
  - Know relative sizes of measurement units within one system of units including hr, min, 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.
  - Use the four operations to solve word problems involving intervals of time, including problems that require expressing measurements given in a larger unit in terms of a smaller unit.
- **Represent and interpret data**
  - Make a line plot to display a data set of measurements in fractions of a unit ( $1/2$ ,  $1/4$ ,  $1/8$ ). 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 collection.
- **Classify shapes by properties of their lines and angles**
  - No evidence outcomes mastered during trimester for this indicator.

### Science

- **Physical Science - Magnetism & Electricity**
  - Use evidence to construct an explanation relating the speed of an object to the energy of that object.
  - Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat and electric currents.
  - Ask questions and predict outcomes about the changes in energy that occur when objects collide.
  - Apply scientific ideas to design, test and refine a device that converts energy from one form to another.
  - Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.
  - Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.
  - Generate and compare multiple solutions that use patterns to transfer information.
- **Life Science - Structures of Life**
  - Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior and reproduction.
  - Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.
- **Earth Science - Solid Earth & Landforms**
  - Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.
  - Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.
  - Analyze and interpret data from maps to describe patterns of Earth's features.
  - Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.
  - Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.

### Social Studies

- **History - Analyze primary and secondary sources from multiple points of view to develop an understanding of the history of Colorado**

- Draw inferences about Colorado history from primary sources such as journals, diaries, maps, etc.
- Identify cause-and-effect relationships using primary sources to understand the history of Colorado's development.
- Explain, through multiple perspectives, the cause-and-effect relationships in the human interactions among people and cultures that have lived in or migrated to Colorado. For example: American Indians, Spanish explorers, trappers/traders, and settlers after westward expansion. This evidence outcome is also mastered in Trimester 1.
- Identify and describe how major political and cultural groups have affected the development of the region.
- Construct a timeline of the major events in Colorado history.
- Explain the relationship between major events in Colorado history and events in United States history during the same era.
- Describe both past and present interactions among the people and cultures in Colorado. For example: American Indians, Spanish explorers, trappers/traders, and settlers after westward expansion.
- Describe the impact of various technological developments. For example: changes in mining technologies, transportation, early 20th century industrial developments, and mid- to late-20th century nuclear, and computer technologies.
- **Geography - Uses geographic tools to research and answer questions about Colorado geography and understand connections between human and physical systems**
  - Answer questions about Colorado regions using maps and other geographic tools.
  - Use geographic grids to locate places on and answer questions about maps and images of Colorado.
  - Create and investigate geographic questions about Colorado in relation to other places.
  - Illustrate, using geographic tools, how places in Colorado have changed and developed over time due to human activity.
  - Describe similarities and differences between the physical geography of Colorado and its neighboring states.
  - Describe how the physical environment provides opportunities for and places constraints on human activities.
  - Explain how physical environments influenced and limited immigration into the state.
  - Analyze how people use geographic factors in creating settlements and have adapted to and modified the local physical environment. This evidence outcome is also mastered in Trimester 1.
  - Describe how places in Colorado are connected by movement of goods, services, and technology. This evidence outcome is also mastered in Trimester 1.
- **Economics - Understand that people respond to positive and negative incentives and evaluate opportunity costs**
  - Define positive and negative economic incentives and describe how people typically respond when given positive or negative incentives.
  - In a given situation, create a plan of appropriate incentives to achieve a desired result. For example: offering a prize to the person who picks up the most trash on the playground.
  - Give examples of the kinds of goods and services produced in Colorado in different historical periods and their connection to economic incentives.
  - Explain how productive resources (natural, human, and capital) have influenced the types of goods produced and services provided in Colorado.
  - Define choice and opportunity cost.
  - Determine the relationship between long-term goals and opportunity cost.
  - Analyze scenarios of choices including opportunity cost. For example: how to spend allowance money or purchase school supplies.
- **Civics - Investigate multiple perspectives on civic issues and understand the origins, structures, and functions of the Colorado government**
  - Give examples of issues faced by the state of Colorado and develop possible solutions.
  - Provide supportive arguments for both sides of a current public policy debate.

- Discuss how various individuals and groups influence the way an issue affecting the state is viewed and resolved.
- Identify and use appropriate sources to investigate and analyze multiple perspectives of issues.
- Explain the historical foundation and events that led to the Colorado Constitution and the formation of the three branches of Colorado government.
- Identify and explain a variety of roles leaders, citizens, and others play in state government.
- Identify and explain the services state government provides and how those services are funded.
- Describe how the decisions of the state government affect local government and interact with federal law.
- Describe how a citizen might engage in state government to demonstrate their rights or initiate change.

## Reviewing the Language

**Learner Expectations:** The articulation (at each grade level), concepts, and skills of a standard that indicate a student is making progress toward being ready for high school. What do students need to know from preschool through eighth grade? These are the statements contained in the report card.

**Evidence Outcomes:** The indication that a student is meeting an expectation at the mastery level. How do we know that a student can do it?

*Example:*

**Learner Expectation:** Use properties of operations to perform multi-digit arithmetic

**Evidence Outcome(s):**

- Fluently add and subtract multi-digit whole numbers using the standard algorithm.

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

**Highlighted evidence outcomes** represent priority content for the 2020-2021 school year.



# Report Card Indicators 2020-2021 2nd Trimester

This school year Colorado has new academic standards for students. Colorado state academic standards are the expectations of what students need to know and be able to do. They also express what Colorado sees as the future skills and essential knowledge for our next generation to be successful.

Academic standards are important because they help ensure that all students are prepared for success in college and the workforce. They provide a framework of clear and consistent expectations for students, parents, and teachers; assist in building your child's knowledge and skills; and set high goals for all students.