



# Seventh-Grade Priority Standards

## READING: Literature

**RL1** Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences are drawn from the text.

**RL2** Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.

**RL4** Determine the meaning of words or phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.

## READING: Informational Text

**RI1** Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

**RI2** Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.

**RI9** Analyze how two or more authors writing about the same topic shape their presentations by key information by emphasizing different evidence or advancing different interpretations of facts.

## WRITING

**W1** Write arguments to support claims with clear reasons and relevant evidence. A. Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically. B.: Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. C. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence. D. Establish and maintain a formal style. E. Provide a concluding statement or section that follows from and supports the argument presented.

**W3** Write narratives to develop real or imagined experiences or events using effective techniques, relevant descriptive details, and well-structured event sequences. A. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. B. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. C. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. D. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. Text Types and Purposes: E. Provide a conclusion that follows from and reflects on the narrated experiences or events.

**W8** Gather relevant information from multiple print and digital sources, using search terms effectively; access the credibility and accuracy of each source, and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

## **SPEAKING AND LISTENING**

**SL1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.

## **LANGUAGE**

**L4** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.

**L5** Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

**L6** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

## **MATH: Geometry**

**G4** Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle

**G6** Solve real-world and mathematical problems involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

## **MATH: Ratios and Proportions**

**RP1** Analyze proportional relationships and use them to solve real-world and mathematical problems. Compute unit rates associated with ratios of fractions, including ratios of lengths, areas, and other quantities measured in like or different units. For example, if a person walks  $\frac{1}{2}$  mile in each  $\frac{1}{4}$  hour, compute the unit rate as the complex fraction  $(\frac{1}{2})/(\frac{1}{4})$  miles per hour, equivalently 2 miles per hour.

**RP2** Analyze proportional relationships and use them to solve real-world and mathematical problems. Recognize and represent proportional relationships between quantities.

**RP3** Analyze proportional relationships and use them to solve real-world and mathematical problems. Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, and percent error.

## **MATH: Number Systems**

**NS1** Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.

**NS2** Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.

**NS3** Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. Solve real-world and mathematical problems involving the four operations with rational numbers. (Computations with rational numbers extend the rules for manipulating fractions to complex fractions.)

## **MATH: Expression and Equations**

**EE3** Solve real-life and mathematical problems using numerical and algebraic expressions and equations. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations as strategies to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional  $\frac{1}{10}$  of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar  $9\frac{3}{4}$  inches long in the center of a door that is  $27\frac{1}{2}$  inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.

**EE4** Solve real-life and mathematical problems using numerical and algebraic expressions and equations. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.

## **SOCIAL STUDIES: Geography**

**G2** Compare and contrast the cultural and environmental characteristics of different places or regions.

## **SOCIAL STUDIES: History**

**H2** Analyze multiple factors that influenced the perspectives of people during different historical eras.

## **SCIENCE**

**MS-PS.3.1** Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object

**MS-PS3.2** Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.

**MS-PS3.3** Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.

**MS-PS3.4** Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample.

**MS-PS3.5** Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.

**MS-PS1.1** Develop models to describe the atomic composition of simple molecules and extended structures.

**MS-PS1.3** Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.

**MS-PS1.4** Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.

**MS-PS1.5** Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved

**MS-PS1.6** Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes

**MS-PS1.2** Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.

**MS-PS2.1** Apply Newton's Third Law to design a solution to a problem involving the motion of two colliding objects.

**MS-PS2.2** Analyze and interpret data on natural hazards to forecast the future. Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.

**MS-PS2.3** Ask questions about data to determine the factors that affect the strength of electric and magnetic forces.

**MS-PS2.4** Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects.