

# Alpine School District

## 6 Components of Literacy with Essential Standards

<b>Sixth Grade</b>	
<b>6 Components of Literacy</b>	<b>Essential</b>
<b>Phonemic Awareness</b>	
<b>Phonics</b>	
<b>Fluency</b>	<b>SL.6.1</b> Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.
<b>Vocabulary</b>	<b>L.6.6</b> 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.
<b>Comprehension</b>	<p><b>RL.6.1/RI.6.1</b> Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p><b>RL.6.2</b> Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.</p> <p><b>RL.6.5</b> Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting or plot.</p> <p><b>RL.6.9</b> Compare and contrast texts in different forms of genres (e.g. stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.</p> <p><b>RI.6.8</b> Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.</p>
<b>Writing</b>	<p><b>W.6.1</b> Write arguments to support claims with clear reasons and relevant evidence.</p> <p><b>W.6.2</b> Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p>
	<p><b>RL.6.10</b> <b>By the end of the year</b>, read and comprehend literature, including stories, dramas, and poems, in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p><b>RI.6.10</b> <b>By the end of the year</b>, read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p><b>W.6.10</b> <b>Write routinely</b> over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>

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### Ratios and Proportional Relationships

Understand ratio concepts and use ratio reasoning to solve problems.

**Standard 6.RP.2** Understand the concept of a unit rate  $a/b$  associated with a ratio  $a:b$  with  $b \neq 0$ , and use rate language in the context of a ratio relationship. The following are examples of rate language: "This recipe has a ratio of four cups of flour to two cups of sugar, so the rate is two cups of flour for each cup of sugar." "We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger." (In sixth grade, unit rates are limited to non-complex fractions.)

### The Number System

Apply and extend previous understandings of multiplication and division of whole numbers to divide fractions by fractions. Compute (add, subtract, multiply and divide) fluently with multi-digit numbers and decimals and find common factors and multiples. Apply and extend previous understandings of numbers to the system of rational numbers.

**Standard 6.NS.1** Interpret and compute quotients of fractions.

*a. Compute quotients of fractions by fractions, for example, by applying strategies such as visual fraction models, equations, and the relationship between multiplication and division, to represent problems.*

*b. Solve real-world problems involving division of fractions by fractions. For example, how much chocolate will each person get if three people share  $1/2$  pound of chocolate equally? How many  $3/4$ -cup servings are in  $2/3$  of a cup of yogurt? How wide is a rectangular strip of land with length  $3/4$  mile and area  $1/2$  square mile?*

*c. Explain the meaning of quotients in fraction division problems. For example, create a story context for  $(2/3) \div (3/4)$  and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that  $(2/3) \div (3/4) = 8/9$  because  $3/4$  of  $8/9$  is  $2/3$ . (In general,  $(a/b) \div (c/d) = ad/bc$ .)*

**Standard 6.NS.6** Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.

*a. Recognize opposite signs of numbers as indicating locations on opposite sides of zero on the number line; recognize that the opposite of the opposite of a number is the number itself. For example,  $-(-3) = 3$ , and zero is its own opposite.*

*b. Understand that the signs of numbers in ordered pairs indicate their location in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.*

*c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.*

### Expressions and Equations

Apply and extend previous understandings of arithmetic to algebraic expressions involving exponents and variables. They reason about and solve one-variable equations and inequalities. Represent and analyze quantitative relationships between dependent and independent variables in a real-world context.

**Standard 6.EE.2** Write, read, and evaluate expressions in which letters represent numbers.

*a. Write expressions that record operations with numbers and with letters representing numbers. For example, express the calculation "Subtract  $y$  from 5" as  $5 - y$  and express "Jane had \$105.00 in her bank account. One year later, she had  $x$  dollars more. Write an expression that shows her new balance" as  $\$105.00 + x$ .*

*b. Identify parts of an expression using mathematical terms (for example, sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity and a sum of two terms. For example, describe the expression  $2(8 + 7)$  as a product of two factors; view  $(8 + 7)$  as both a single entity and a sum of two terms.*

*c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, applying the Order of Operations when there are no parentheses to specify a particular order. For example, use the formulas  $V = s^3$  and  $A = 6s^2$  to find the volume and surface area of a cube with sides of length  $s = 1/2$ .*

**Standard 6.EE.7** Solve real-world and mathematical problems by writing and solving equations of the form  $x + a = b$  and  $ax = b$  for cases in which  $a$ ,  $b$  and  $x$  are all non-negative rational numbers.

### **Probability and Statistics**

Develop understanding of statistical variability of data. Summarize and describe distributions.

**6.SP.5** Summarize numerical data sets in relation to their context, such as by:

*a. Reporting the number of observations.*

*b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.*

*c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations (for example, outliers) from the overall pattern with reference to the context in which the data were gathered.*

*d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.*

### **Geometry**

Graph points on the coordinate plane to solve real-world and mathematical problems. Classify two-dimensional figures into categories based on their properties.

**6.G.1** Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing and decomposing into rectangles, triangles and/or other shapes; apply these techniques in the context of solving real-world and mathematical problems.

**Total: 7 Standards**