

# Alpine School District

## 6 Components of Literacy with Essential Standards

<b>Fourth Grade</b>	
<b>6 Components of Literacy</b>	<b>Essential</b>
<b>Phonemic Awareness</b>	
<b>Phonics</b>	<b>RF.4.3</b> Know and apply grade-level phonics and word analysis skills in decoding words.
<b>Fluency</b>	<b>RF.4.4</b> Read with sufficient accuracy and fluency to support comprehension.
<b>Vocabulary</b>	<b>L.4.4</b> Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibility from a range of strategies.
<b>Comprehension</b>	<p><b>RL.4.1/RI.4.1</b> Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text</p> <p><b>RL.4.2</b> Determine a theme of a story, drama, or poem from details in the text; summarize the text.</p> <p><b>RI.4.2</b> Determine the main idea of a text and explain how it is supported by key details; summarize the text.</p> <p><b>RI.4.5</b> Describe the overall structure (e.g. chronology, comparison, cause/ effect, problem/ solution) of events, ideas, concepts, or information in a text or part of a text.</p>
<b>Writing</b>	<p><b>W.4.1</b> Write opinion pieces on topics or texts, supporting a point of view with reasons and information.</p> <p><b>W.4.2.</b> Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <p><b>L.4.2</b> Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p>
	<p><b>RL.4.10 By the end of the year</b>, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p><b>RI.4.10 By the end of the year</b>, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grade 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range. Continue to develop fluency when reading documents written in cursive.</p> <p><b>W.4.10 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>

# Alpine School District

## Math Essential Standards-4th Grade

### Operations and Algebraic Thinking

Use the four operations with whole numbers (addition, subtraction, multiplication, and division) to solve problems. Gain familiarity with factors and multiples. Generate and analyze numeric and shape patterns. Demonstrate complete fluency with products of one-digit numbers.

**4.OA.1** Interpret a multiplication equation as a comparison (for example, 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.

**4.OA.2** Multiply or divide to solve word problems involving multiplicative comparison, for example, by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

### Numbers and Operations in Base Ten

Understand the place value system. Perform operations with multi-digit whole numbers and with decimals to hundredths.

**4.NBT.2** Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons.

**4.NBT.5** 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.

**4.NBT.5** Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

### Numbers and Operations in Fractions

Extend understanding of equivalence and ordering of fractions. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. Understand decimal notation to the hundredths and compare decimal fractions with denominators of 10 and 100. Denominators for fourth grade are limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100.

**4.NF.1**  $(n \times a)/(n \times b)$  by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves.

**4.NF.2** Compare two fractions with different numerators and different denominators, for example, 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, for example, by using a visual fraction model.

**4.NF.4** Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.

- a. 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  $5/4 = 5 \times (1/4)$ .
- b. 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,  $n \times (a/b) = (n \times a)/b$ .)
- c. 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?

### **Measurement and Data**

Solve problems involving measurement and conversion of measurements. Represent and interpret data. Understand concepts of angle and measure angles.

**4.MD.1** Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; 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. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...

### **Geometry**

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

**4.G.2** Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

**Total: 9 Standards**