

## Learning Log #1

### **Reading:**

#### ***Grade Four***

CCSS.ELA-LITERACY.RL/INFO.4.1: Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

CCSS ELA-LITERACY RL 4.3: Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).

CCSS ELA-LITERACY RI 4.3: Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

CCSS ELA-LITERACY RLit/Info 4.2 Determine a theme of a story, drama, or poem from details in the text; summarize the text. CCSS ELA-LITERACY RLit 4.3 Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions). CCSS ELA-LITERACY RInfo 4.3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

#### ***Grade Five***

CCSS.ELA-LITERACY.RL.5.2 Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. CCSS.ELA-LITERACY.RL.5.3 Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).

CCSS.ELA-LITERACY.RI.5.3 Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text

### **Writing:**

### **Grade Four**

CSS.ELA-LITERACY.W.4.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

CCSS.ELA-LITERACY.W.4.3.A Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.

CCSS.ELA-LITERACY.W.4.3.B Use dialogue and description to develop experiences and events or show the responses of characters to situations.

CCSS.ELA-LITERACY.W.4.3.C Use a variety of transitional words and phrases to manage the sequence of events. CCSS.ELA-LITERACY.W.4.3.D Use concrete words and phrases and sensory details to convey experiences and events precisely.

CCSS.ELA-LITERACY.W.4.3.E Provide a conclusion that follows from the narrated experiences or events.

CCSS.ELA-LITERACY.W.4.8 Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.

CCSS.ELA-LITERACY.W.4.10 Write routinely 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 Add grammar lessons into your daily practice: <http://www.cde.ca.gov/be/st/ss/documents/finalelaccsstandards.pdf>

### **Grade Five**

CCSS.ELA-LITERACY.RI.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

CCSS.ELA-LITERACY.RI.5.2 Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

CCSS.ELA-LITERACY.RI.5.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.

CCSS.ELA-LITERACY.RI.5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

CCSS.ELA-LITERACY.RI.5.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4-5 text complexity band independently and proficiently.

CCSS.ELA-LITERACY.W.5.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

CCSS.ELA-LITERACY.W.5.3.A Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.

CCSS.ELA-LITERACY.W.5.3.B Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.

CCSS.ELA-LITERACY.W.5.3.C Use a variety of transitional words, phrases, and clauses to manage the sequence of events.

CCSS.ELA-LITERACY.W.5.3.D Use concrete words and phrases and sensory details to convey experiences and events precisely.

CCSS.ELA-LITERACY.W.5.3.E Provide a conclusion that follows from the narrated experiences or events.

CCSS.ELA-LITERACY.W.5.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)

CCSS.ELA-LITERACY.W.5.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 here.)

CCSS.ELA-LITERACY.W.5.6 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting

CCSS.ELA-LITERACY.W.5.10 Write routinely 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.

**Math:**

### **Grade Four**

CCSS.MATH.CONTENT.4.NBT Generalize place value understanding for multi-digit whole numbers  
CCSS.MATH.CONTENT.4.NBT.A.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that  $700 \div 70 = 10$  by applying concepts of place value and division.

CCSS.MATH.CONTENT.4.NBT.A.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.

CCSS.MATH.CONTENT.4.NBT.A.3 Use place value understanding to round multi-digit whole numbers to any place  
Use place value understanding and properties of operations to perform multi-digit arithmetic  
CCSS.MATH.CONTENT.4.NBT.B.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm.  
CCSS.MATH.CONTENT.4.NBT.B.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.

CCSS.MATH.CONTENT.4.NBT.B.6 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. 1  
Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.

### **Grade Five**

5.OA.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.  
5.OA.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

5.OA.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.

5.NBT.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and  $1/10$  of what it represents in the place to its left.

## **Learning Log #2**

### **Reading:**

#### ***4th grade***

CCSS.ELA-LITERACY.RL/INFO.4.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

CCSS.ELA-LITERACY.RL.4.7 Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.

CCSS.ELA-LITERACY.RI.4.7 Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears. Reading Foundational Skills: Phonics and Word Recognition Know and apply grade-level phonics and word analysis skills in decoding words both in isolation and in text. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

#### ***Grade Five***

CCSS.ELA-LITERACY.RI.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

CCSS.ELA-LITERACY.RI.5.2 Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

CCSS.ELA-LITERACY.RI.5.3 Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text

### **Writing:**

***Grade Four*** CCSS.ELA-LITERACY.W.4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

CCSS.ELA-LITERACY.W.4.2.A Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.

CCSS.ELA-LITERACY.W.4.2.B Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.

CCSS.ELA-LITERACY.W.4.2.C Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).

CCSS.ELA-LITERACY.W.4.2.D Use precise language and domain-specific vocabulary to inform about or explain the topic.

CCSS.ELA-LITERACY.W.4.2.E Provide a concluding statement or section related to the information or explanation presented.

CCSS.ELA-LITERACY.W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.

CCSS.ELA-LITERACY.W.4.10 Write routinely 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

LANGUAGE/GRAMMAR SKILLS: Choose the skills needed for your student:  
<http://www.cde.ca.gov/be/st/ss/documents/finalelaccsstandards.pdf>

### ***Grade Five***

CCSS.ELA-LITERACY.W.5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

CCSS.ELA-LITERACY.W.5.2.A Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.

CCSS.ELA-LITERACY.W.5.2.B Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic

CCSS.ELA-LITERACY.W.5.2.C Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).

CCSS.ELA-LITERACY.W.5.2.D Use precise language and domain-specific vocabulary to inform about or explain the topic.

CCSS.ELA-LITERACY.W.5.2.E Provide a concluding statement or section related to the information or explanation presented.

Range of Writing: CCSS.ELA-LITERACY.W.5.10 Write routinely 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.

**Math:**

***Grade Four***

Grade 4: Use the four operations with whole numbers to solve problems.  
CCSS.MATH.CONTENT.4.OA.A.1 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.

CCSS.MATH.CONTENT.4.OA.A.2 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.

1 CCSS.MATH.CONTENT.4.OA.A.3 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.

**Grade Five Place Value of Whole Numbers and Decimals**

5.NBT.A.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and  $1/10$  of what it represents in the place to its left.

5.NBT.A.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point

when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.

5.NBT.A.3 Read, write, and compare decimals to thousandths.

5.NBT.A.3.A Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g.,  $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$ .

5.NBT.A.3.B Compare two decimals to thousandths based on meanings of the digits in each place, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons.

5.NBT.A.4 Use place value understanding to round decimals to any place. Understand the place value system.

NBT 2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.

5 NBT 7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

5 NBT 5 Perform operations with multi-digit whole numbers and with decimals to hundredths. 5. Fluently multiply multi-digit whole numbers using the standard algorithm. (Continue to practice if not mastered)

5 NBT 6. Find whole-number quotients of whole numbers with up to four-digit dividends and two-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. Write and interpret numerical expressions. 1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. 2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them Analyze patterns and relationships. 3. Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe

that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.

5.NF Number and Operations – Fractions Use equivalent fractions as a strategy to add and subtract fractions. 1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. 2. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. 3. Interpret a fraction as division of the numerator by the denominator ( $a/b = a \div b$ ). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers,

<http://www.dpi.state.nc.us/docs/curriculum/mathematics/scos/5.pdf>

## **Learning Log #3**

### **Reading Learning Goals:**

#### ***Fourth Grade***

CCSS ELA-LITERACY R Lit/Info 4.4: Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean). Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a Level 5 topic or subject area.

CCSS ELA-LITERACY R Lit/Info 4.5: Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text. 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.

CCSS ELA-LITERACY RLit/Info 4.6: Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations. Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.

#### ***Fifth Grade***

CCSS.ELA-LITERACY.RL.5.4 Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.

CCSS.ELA-LITERACY.RL.5.5 Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.

CCSS.ELA-LITERACY.RL.5.6 Describe how a narrator's or speaker's point of view influences how events are described. Fluency: CCSS.ELA-LITERACY.RF.5.4 Read with sufficient accuracy and fluency to support comprehension.

CCSS.ELA-LITERACY.RF.5.4.A Read grade-level text with purpose and understanding. CCSS.ELA-LITERACY.RF.5.4.B Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.

CCSS.ELA-LITERACY.RF.5.4.C Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

**Writing Learning Goals:**

***Fourth Grade***

CCSS.ELA-LITERACY.W.4.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

CCSS.ELA-LITERACY.W.4.1.A 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.

CCSS.ELA-LITERACY.W.4.1.B Provide reasons that are supported by facts and details.

CCSS.ELA-LITERACY.W.4.1.C Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition)

CCSS.ELA-LITERACY.W.4.1.D Provide a concluding statement or section related to the opinion presented.

CCSS.ELA-LITERACY.W.4.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

CCSS.ELA-LITERACY.W.4.9.A Apply grade 4 Reading standards to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions].").

CCSS.ELA-LITERACY.W.4.9.B Apply grade 4 Reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text").

CCSS.ELA-LITERACY.W.4.10 Write routinely 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

***Fifth Grade*** Text Types and Purposes:

CCSS.ELA-LITERACY.W.5.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

CCSS.ELA-LITERACY.W.5.1.A Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.

CCSS.ELA-LITERACY.W.5.1.B Provide logically ordered reasons that are supported by facts and details.

CCSS.ELA-LITERACY.W.5.1.C Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically).

CCSS.ELA-LITERACY.W.5.1.D Provide a concluding statement or section related to the opinion presented.

Range of Writing: CCSS.ELA-LITERACY.W.5.10 Write routinely 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.

### **Math Learning Goals:**

**Fourth Grade** Extend understanding of fraction equivalence and ordering.

CCSS.MATH.CONTENT.4.NF.A.1 Explain why a fraction  $\frac{a}{b}$  is equivalent to a fraction  $\frac{n \times a}{n \times b}$  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.

CCSS.MATH.CONTENT.4.NF.A.2 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  $\frac{1}{2}$ . 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. Build fractions from unit fractions.

CCSS.MATH.CONTENT.4.NF.B.3 Understand a fraction  $\frac{a}{b}$  with  $a > 1$  as a sum of fractions  $\frac{1}{b}$

CCSS.MATH.CONTENT.4.NF.B.3.A Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.

CCSS.MATH.CONTENT.4.NF.B.3.B Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an

equation. Justify decompositions, e.g., by using a visual fraction model. Examples:  $3/8 = 1/8 + 1/8 + 1/8$ ;  $3/8 = 1/8 + 2/8$ ;  $2\ 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$

CCSS.MATH.CONTENT.4.NF.B.3.C 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.

CCSS.MATH.CONTENT.4.NF.B.3.D 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.

CCSS.MATH.CONTENT.4.NF.B.4 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.

CCSS.MATH.CONTENT.4.NF.B.4.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  $5/4 = 5 \times (1/4)$

. CCSS.MATH.CONTENT.4.NF.B.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,  $n \times (a/b) = (n \times a)/b$ .)

CCSS.MATH.CONTENT.4.NF.B.4.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?  
Understand decimal notation for fractions, and compare decimal fractions.

CCSS.MATH.CONTENT.4.NF.C.5 Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.2 For example, express  $3/10$  as  $30/100$ , and add  $3/10 + 4/100 = 34/100$

. CCSS.MATH.CONTENT.4.NF.C.6 Use decimal notation for fractions with denominators 10 or 100. For example, rewrite  $0.62$  as  $62/100$ ; describe a length as  $0.62$  meters; locate  $0.62$  on a number line diagram

. CCSS.MATH.CONTENT.4.NF.C.7 Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two

decimals refer to the same whole. Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, e.g., by using a visual model. 1 Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100. 2 Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade.

**Fifth Grade** Number and Operations in Base Ten 5.NBT Major Clusters Understand the place-value system. (5.NBT.1–4 ) Perform operations with multi-digit whole numbers and with decimals to hundredths. (5.NBT.5–7 ) Number and Operations

—Fractions 5.NF Major Clusters Use equivalent fractions as a strategy to add and subtract fractions. (5.NF.1–2 ) Apply and extend previous understandings of multiplication and division to multiply and divide fractions. (5.NF.3–7 ) Resources: <https://nrich.maths.org/2550> Teaching Fractions with Understanding: Part-whole Concept

<http://illuminations.nctm.org/activity.aspx?id=4148> Fraction Game and a great site for all mathematical concepts!

[http://www.internet4classrooms.com/skill\\_builders/fractions\\_percent\\_math\\_fifth\\_5th\\_grade.htm](http://www.internet4classrooms.com/skill_builders/fractions_percent_math_fifth_5th_grade.htm)

## **Learning Log #4**

### **Reading Learning Goals:**

#### **Fourth Grade**

CCSS ELA-LITERACY R Lit 4.7: Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.

CCSS ELA-LITERACY R Info 4.7: Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

CCSS ELA-LITERACY R Lit 4.9: Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.

CCSS ELA-LITERACY R Info 4.9: Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

#### **Fifth Grade**

CCSS.ELA-LITERACY.RL.5.7 Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).

CCSS.ELA-LITERACY.RL.5.9 Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics

CCSS.ELA-LITERACY.RI.5.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

CCSS.ELA-LITERACY.RI.5.8 Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).

CCSS.ELA-LITERACY.RI.5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

#### **Phonics and Word Recognition:**

CCSS.ELA-LITERACY.RF.5.3 Know and apply grade-level phonics and word analysis skills in decoding words.

CCSS.ELA-LITERACY.RF.5.3.A Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

## **Writing Learning Goals:**

### **Fourth Grade**

CCSS.ELA-LITERACY.W.4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

CCSS.ELA-LITERACY.W.4.2.A Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.

CCSS.ELA-LITERACY.W.4.2.B Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.

CCSS.ELA-LITERACY.W.4.2.C Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).

CCSS.ELA-LITERACY.W.4.2.D Use precise language and domain-specific vocabulary to inform about or explain the topic.

CCSS.ELA-LITERACY.W.4.2.E Provide a concluding statement or section related to the information or explanation presented.

CCSS.ELA-LITERACY.W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.

CCSS.ELA-LITERACY.W.4.10 Write routinely 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

### **Fifth Grade**

CCSS.ELA-LITERACY.W.5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

CCSS.ELA-LITERACY.W.5.2.A Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.

CCSS.ELA-LITERACY.W.5.2.B Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.

CCSS.ELA-LITERACY.W.5.2.C Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).

CCSS.ELA-LITERACY.W.5.2.D Use precise language and domain-specific vocabulary to inform about or explain the topic.

CCSS.ELA-LITERACY.W.5.2.E Provide a concluding statement or section related to the information or explanation presented

Range of Writing:

CCSS.ELA-LITERACY.W.5.10 Write routinely 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.

## **Math Learning Goals:**

### **Fourth Grade**

Solve problems involving measurement and conversion of measurements.

CCSS.MATH.CONTENT.4.MD.A.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), ...

CCSS.MATH.CONTENT.4.MD.A.2: Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

CCSS.MATH.CONTENT.4.MD.A.3: Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.

Represent and interpret data.

CCSS.MATH.CONTENT.4.MD.B.4: Make a line plot to display a data set of measurements in fractions of a unit ( $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ ). 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.

Geometric measurement: understand concepts of angle and measure angles.

CCSS.MATH.CONTENT.4.MD.C.5: Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:

CCSS.MATH.CONTENT.4.MD.C.5.A: An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the

two rays intersect the circle. An angle that turns through  $\frac{1}{360}$  of a circle is called a "one-degree angle," and can be used to measure angles.

CCSS.MATH.CONTENT.4.MD.C.5.B: An angle that turns through  $n$  one-degree angles is said to have an angle measure of  $n$  degrees.

CCSS.MATH.CONTENT.4.MD.C.6: Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.

CCSS.MATH.CONTENT.4.MD.C.7: Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure

## **Fifth Grade**

CC.5.MD.3 Geometric measurement: Recognize volume as an attribute of solid figures and understand concepts of volume measurement. –

a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume. –

b. A solid figure which can be packed without gaps or overlaps using  $n$  unit cubes is said to have a volume of  $n$  cubic units. • I can define volume. • I can recognize that unit cubes measure volume of three-dimensional shapes and label it as cubic units.

CC.5.MD.4 Geometric measurement: Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units. • I can measure volume by counting unit cubes, cubic cm, cubic in., cubic ft., and improvised units.

CC.5.MD.5 Geometric measurement: Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. • I can identify a right rectangular prism. • I can multiply the three dimensions in any order to calculate volume

(Commutative and associative properties). • I can prove that multiplying length, width and height of a right rectangular prism is the same as filling it with unit cubes to determine the volume. • I can find the volume of a right rectangular prism with whole number side lengths by packing it with unit cubes. • I can identify that “B” is the base and can be determined by multiplying length times width. • I can apply volume formulas to right rectangular prisms to solve real world problems:  $\text{Volume} = \text{length} \times \text{width} \times \text{height}$   $\text{Volume} = \text{area of base} \times \text{height}$

CC.5.MD.5c Recognize volume as additive. Find volumes of solid figures composed of two nonoverlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems. • I can add the volume of two right rectangular prisms to find the total volume. • I can find the total volume of two right rectangular prisms to solve real world problems.

## Learning Log #5

### Reading Learning Goals:

#### Grade Four

CCSS.ELA-LITERACY.RL/INFO.4.1: Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

CCSS ELA-LITERACY RL 4.3: Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character’s thoughts, words, or actions).

CCSS ELA-LITERACY RI 4.3: Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

#### Grade Five

CCSS.ELA-LITERACY.RI.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

CCSS.ELA-LITERACY.RI.5.2 Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

CCSS.ELA-LITERACY.RI.5.3 Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.

CCSS.ELA-LITERACY.RI.5.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.

CCSS.ELA-LITERACY.RI.5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

CCSS.ELA-LITERACY.RI.5.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4-5 text complexity band independently and proficiently.

## **Writing Learning Goals:**

### **Grade Four**

CSS.ELA-LITERACY.W.4.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

CCSS.ELA-LITERACY.W.4.3.A Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.

CCSS.ELA-LITERACY.W.4.3.B Use dialogue and description to develop experiences and events or show the responses of characters to situations.

CCSS.ELA-LITERACY.W.4.3.C Use a variety of transitional words and phrases to manage the sequence of events.

CCSS.ELA-LITERACY.W.4.3.D Use concrete words and phrases and sensory details to convey experiences and events precisely.

CCSS.ELA-LITERACY.W.4.3.E Provide a conclusion that follows from the narrated experiences or events.

CCSS.ELA-LITERACY.W.4.8 Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.

CCSS.ELA-LITERACY.W.4.10 Write routinely 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

### **Grade Five**

CCSS.ELA-LITERACY.W.5.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

CCSS.ELA-LITERACY.W.5.3.A Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.

CCSS.ELA-LITERACY.W.5.3.B Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.

CCSS.ELA-LITERACY.W.5.3.C Use a variety of transitional words, phrases, and clauses to manage the sequence of events.

CCSS.ELA-LITERACY.W.5.3.D Use concrete words and phrases and sensory details to convey experiences and events precisely.

CCSS.ELA-LITERACY.W.5.3.E Provide a conclusion that follows from the narrated

experiences or events.

Range of Writing:

CCSS.ELA-LITERACY.W.5.10 Write routinely 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.

### **Math Learning Goals:**

#### **Grade Four**

Use the four operations with whole numbers to solve problems.

CCSS.MATH.CONTENT.4.OA.A.1: 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.

CCSS.MATH.CONTENT.4.OA.A.2: 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.1

CCSS.MATH.CONTENT.4.OA.A.3: Solve multistep word problems posed with whole

numbers and having wholenumber 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.

### **Grade Five**

Write and interpret numerical expressions.

CCSS.MATH.CONTENT.5.OA.A.1 Use parentheses, brackets, or braces in numerical

expressions, and evaluate expressions with these symbols.

CCSS.MATH.CONTENT.5.OA.A.2 Write simple expressions that record calculations

with numbers, and interpret numerical expressions without evaluating them.

For

example, express the calculation "add 8 and 7, then multiply by 2" as  $2 \times (8 + 7)$ .

Recognize that  $3 \times (18932 + 921)$  is three times as large as  $18932 + 921$ , without

having to calculate the indicated sum or product.

Analyze patterns and relationships.

CCSS.MATH.CONTENT.5.OA.B.3 Generate two numerical patterns using two given

rules. Identify apparent relationships between corresponding terms. Form ordered pairs

consisting of corresponding terms from the two patterns, and graph the ordered pairs on

a coordinate plane. For example, given the rule "Add 3" and the starting number 0, and

given the rule "Add 6" and the starting number 0, generate terms in the resulting

sequences, and observe that the terms in one sequence are twice the corresponding

terms in the other sequence. Explain informally why this is so.