

California's  
**COMMON CORE**

Content Standards  
Curriculum Builder  
Fifth Grade

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Curriculum Builder for  
ELA and Mathematics  
Fifth Grade

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# CALIFORNIA'S COMMON CORE CONTENT STANDARDS FOR ENGLISH LANGUAGE ARTS & LITERACY IN HISTORY/SOCIAL STUDIES, SCIENCE AND TECHNICAL SUBJECTS

## **The History of Standards in California**

Student content standards describe what students should know and be able to do in a subject matter for a particular grade. California ushered in the standards era in 1997, when the State Board of Education adopted contents standards, K-12, for both English Language Arts and mathematics, establishing for the first time in the State a consistent set of expectations for all students. Those standards have stood as the beacon for the development of curriculum frameworks, the creation of curricular materials, and the basis for State and local assessments.

While California established and utilized its own standards, every other state in the union did the same. Seeking uniformity of rigor and expectation for the entire nation, the National Governors Association Center for Best Practices and the Council of chief State School Officers coordinated efforts to write the Common core State Standards. Teachers, school administrators, and experts began the work with the end in mind and drafted “career and college ready” exit standards for graduated high school seniors. As such these anchor standards define what is required to be successful in entry-level, credit-bearing academic college courses and in the workforce training programs. With exit standards charting the way, the creators of the Common Core standards backward-mapped down through the grade levels to create a consistent format and strong linkages from grade level to grade level.

These new Common Core Standards, adopted for English language arts and mathematics only:

- Are aligned with college and work expectations
- Are clear, understandable, and consistent
- Include rigorous content and application of knowledge through higher-order skills
- Build upon strengths and lessons of the current standards from many states
- Are informed by other top performing countries, so that all students are prepared to succeed in our global economy and society
- Are evidence-based

## **Transition to the Common Core Standards**

The State Board of Education in California adopted the Common Core Standards in 2010 to ensure that California would be eligible as a state to submit an application for a Race to the Top grant. Even though that application was not selected for funding, the adoption of the Common Core Standards is in law. Currently, 47 states have adopted the standards. It is the advent of assessments tied to the Common Core, however, that will mark the true transition from the older California standards to the current Common

Core. California participates with over twenty other states in the SMARTER Balanced Assessment Consortium. Linking arms with other states in the consortium, California plans to usher in a totally new assessment system in the spring of the school year 2014-15. The implementation of a new assessment system will mark point in time when students, teachers, schools, districts and larger systems will be held accountable for the instruction of these new standards.

In order to create as smooth a transition as possible from the old standards and the current assessment system, teachers and administrators are working to understand and embrace the Common Core Standards. This publication is designed to assist with that process.

### **The new Common Core Standards for English Language Arts & Literacy in History/Social Studies, Science and Technical Subjects**

The title of the standards includes other fields of study responsible for student literacy. In the K-5 standards, references to history/social studies, science and technical subjects are embedded. In the upper grade level standards, these content areas have their own section of standards. The inclusion across traditional divisions of study reinforces the primacy of literacy and the need for its integration.

**Reading standards** are “stair-cased” and demand student reading of a diverse array of classic and contemporary literature, but likewise insist on a focus of challenging informational texts. There is no specified reading list, but the Common Core instead provide numerous sample texts. Various genre are delineated that include: myths, foundational documents from U. S. history, seminal works of American literature, and, of course, Shakespeare. States, local districts, and perhaps even schools will make the final decisions about what titles students will read.

The issue of text complexity reminds educators that the reading level of work place documents frequently

exceeds the rigor of literature at the college level. Therefore, the measurement called the “lexile” gauges the text complexity of a document. Text complexity intertwines the issues of: qualitative dimensions (structure of language, knowledge demands, etc.), quantitative dimensions (word length, sentence length, etc.), and reader and task considerations (appropriateness of text to reader, reader motivation and experiences, etc.)

**Writing standards** are grounded in the ability to write logical arguments based on claims, sound reasoning, and relevant evidence. Even the earliest grades require the ability to argue through opinion writing. Additionally, students are expected to conduct research, both short- and long-term projects, throughout the grade levels. To establish a consistent expectation for rigor, annotated samples of student writing across the grade levels accompany the standards.

**Speaking and Listening standards** require the presentation of complex information through the acts of listening and speaking but also through media. Speaking is expected between individuals, in small groups and in larger groups.

**Language standards** describe vocabulary acquisition and the ability to appreciate nuances of words. In addition to the use of formal language, students are expected to navigate through a variety of contexts and choose the appropriate level of formality.

**Media and Technology standards** are integrated through these standards.

**Implementation:** We are launching into CCSS using the curriculum and the materials we have. Whether your district is using Open Court, MMH, or another program, we must begin CCSS implementation using our existing materials.

As you proceed through your pacing guide and current curriculum, compare each lesson to the standards found here. Use the notes column to document which parts of your current curriculum is relevant to each standard.

# READING LITERATURE

## Key Ideas and Details

Standard		Notes	Dates Taught					Mastery
RL 1.	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.							
RL 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.							
RL 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).							

## Craft and Structure

Standard		Notes	Dates Taught					Mastery
RL 4.	Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.							
RL 5.	Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.							
RL 6.	Describe how a narrator's or speaker's point of view influences how events are described.							

## Integration of Knowledge and Ideas

Standard		Notes	Dates Taught					Mastery
RL 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).							

## Integration of Knowledge and Ideas

Standard	Notes	Dates Taught					Mastery
RL 8. (Not applicable to literature)							
RL 9. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.							

## Range of Reading and Complexity of Text

Standard	Notes	Dates Taught					Mastery
RL 10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently.							

## READING INFORMATIONAL TEXT

### Key Ideas and Details

Standard	Notes	Dates Taught					Mastery
RI 1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.							
RI 2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.							
RI 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.							

## Craft and Structure

Standard		Notes	Dates Taught					Mastery
RI 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.							
RI 5.	Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.							
RI 6.	Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.							

## Integration of Knowledge and Ideas

Standard		Notes	Dates Taught					Mastery
RI 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.							
RI 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).							
RI 9.	Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.							

## Range of Reading and Level of Text Complexity

Standard		Notes	Dates Taught					Mastery
RI 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.							



# READING FOUNDATIONAL SKILLS

## Phonics and Word Recognition

Standard	Notes	Dates Taught					Mastery
RF 3. Know and apply grade-level phonics and word analysis skills in decoding words.							
RF 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.							

## Fluency

Standard	Notes	Dates Taught					Mastery
RF 4. Read with sufficient accuracy and fluency to support comprehension.							
RF 4.a Read grade-level text with purpose and understanding.							
RF 4.b Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression.							
RF 4.c Use context to confirm or self-correct word recognition and understanding, rereading as necessary.							

# WRITING

## Text Types and Purposes

Standard	Notes	Dates Taught					Mastery
W 1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.							
W 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.							



## Text Types and Purposes

Standard		Notes	Dates Taught					Mastery
W 1.b	Provide logically ordered reasons that are supported by facts and details.							
W 1.c	Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically).							
W 1.d	Provide a concluding statement or section related to the opinion presented.							
W 2.	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.							
W 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.							
W 2.b	Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.							
W 2.c	Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).							
W 2.d	Use precise language and domain-specific vocabulary to inform about or explain the topic.							
W 2.e	Provide a concluding statement or section related to the information or explanation presented.							
W 3.	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.							
W 3.a	Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.							

## Text Types and Purposes

Standard		Notes	Dates Taught					Mastery
W 3.b	Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.							
W 3.c	Use a variety of transitional words, phrases, and clauses to manage the sequence of events.							
W 3.d	Use concrete words and phrases and sensory details to convey experiences and events precisely.							
W 3.e	Provide a conclusion that follows from the narrated experiences or events.							

## Production and Distribution of Writing

Standard		Notes	Dates Taught					Mastery
W 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.)							
W 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.							
W 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.							

## Research to Build and Present Knowledge

Standard	Notes	Dates Taught					Mastery
W 7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.							
W 8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.							
W 9. Draw evidence from literary or informational texts to support analysis, reflection, and research.							
W 9.a Apply grade 5 Reading standards to literature (e.g., “Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]”).							
W 9.b Apply grade 5 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]”).							

## Range of Writing

Standard	Notes	Dates Taught					Mastery
W 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.							

# SPEAKING & LISTENING

## Comprehension and Collaboration

Standard		Notes	Dates Taught					Mastery
SL 1.	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.							
SL 1.a	Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.							
SL 1.b	Follow agreed-upon rules for discussions and carry out assigned roles.							
SL 1.c	Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.							
SL 1.d	Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.							
SL 2.	Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.							
SL 3.	Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.							

## Presentation of Knowledge and Ideas

Standard		Notes	Dates Taught					Mastery
SL 4.	Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.							

## Presentation of Knowledge and Ideas

Standard	Notes	Dates Taught					Mastery
SL 5. Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.							
SL 6. Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.							

## LANGUAGE STANDARDS

### Conventions of Standard English

Standard	Notes	Dates Taught					Mastery
L 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.							
L 1.a Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.							
L 1.b Form and use the perfect (e.g., I had walked; I have walked; I will have walked) verb tenses.							
L 1.c Use verb tense to convey various times, sequences, states, and conditions.							
L 1.d Recognize and correct inappropriate shifts in verb tense.							
L 1.e Use correlative conjunctions (e.g., either/or, neither/nor).							
L 2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.							
L 2.a Use punctuation to separate items in a series.							

## Conventions of Standard English

Standard		Notes	Dates Taught					Mastery
L 2.b	Use a comma to separate an introductory element from the rest of the sentence.							
L 2.c	Use a comma to set off the words yes and no (e.g., Yes, thank you), to set off a tag question from the rest of the sentence (e.g., It's true, isn't it?), and to indicate direct address (e.g., Is that you, Steve?).							
L 2.d	Use underlining, quotation marks, or italics to indicate titles of works.							
L 2.e	Spell grade-appropriate words correctly, consulting references as needed.							

## Knowledge of Language

Standard		Notes	Dates Taught					Mastery
L 3.	Use knowledge of language and its conventions when writing, speaking, reading, or listening.							
L 3.a	Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.							
L 3.b	Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.							

## Vocabulary Acquisition and Use

Standard		Notes	Dates Taught					Mastery
L 4.	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.							

## Vocabulary Acquisition and Use

Standard		Notes	Dates Taught					Mastery
L 4.a	Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.							
L 4.b	Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., photograph, photosynthesis).							
L 4.c	Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.							
L 5.	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.							
L 5.a	Interpret figurative language, including similes and metaphors, in context.							
L 5.b	Recognize and explain the meaning of common idioms, adages, and proverbs.							
L 5.c	Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.							
L 6.	Recognize and explain the meaning of common idioms, adages, and proverbs.							
L 5.c	Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).							
L 6.	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition).							



# CALIFORNIA'S COMMON CORE CONTENT STANDARDS FOR MATHEMATICS

The K-5 standards provide students with a *solid foundation in whole numbers, addition, subtraction, multiplication, division, fractions and decimals*—which help young students build the foundation to successfully apply more demanding math concepts and procedures, and move into applications.

In kindergarten, the standards follow successful international models and recommendations from the National Research Council's Early Math Panel report, by focusing kindergarten work on the number core: learning how numbers correspond to quantities, and learning how to put numbers together and take them apart (the beginnings of addition and subtraction).

The K-5 standards build on the best state standards to provide detailed guidance to teachers on how to navigate their way through knotty topics such as *fractions, negative numbers, and geometry*, and do so by maintaining a continuous progression from grade to grade.

The standards stress not only procedural skill but also conceptual understanding, to make sure students are learning and absorbing the critical information they need to succeed at higher levels - rather than the current practices by which many students learn enough to get by on the next test, but forget it shortly thereafter, only to review again the following year.

Having built a strong foundation K-5, students can do hands on learning in geometry, algebra and probability and statistics. Students who have completed 7th grade and mastered the content and skills through the 7th grade will be *well-prepared for algebra* in grade 8.

# OPERATIONS & ALGEBRAIC THINKING

Write and interpret numerical expressions.

Standard	Notes	Dates Taught					Mastery
OA 1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.							
OA 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.

Standard	Notes	Dates Taught					Mastery
OA 4. 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.							

# NUMBER & OPERATIONS IN BASE TEN

Understand the place value system.

Standard	Notes	Dates Taught					Mastery
<p>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.</p>							
<p>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.</p>							
<p>NBT 3. Read, write, and compare decimals to thousandths.</p>							
<p>NBT 3.a Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., <math>347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)</math>.</p>							
<p>NBT 3.b Compare two decimals to thousandths based on meanings of the digits in each place, using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> symbols to record the results of comparisons.</p>							
<p>NBT 4. Use place value understanding to round decimals to any place.</p>							

## Perform operations with multi-digit whole numbers and with decimals to hundredths.

Standard	Notes	Dates Taught					Mastery
NBT 5. Fluently multiply multi-digit whole numbers using the standard algorithm.							
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.							
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.							

# NUMBER & OPERATIONS—FRACTIONS

Use equivalent fractions as a strategy to add and subtract fractions.

Standard	Notes	Dates Taught					Mastery
<p>NF 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. For example, <math>\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}</math>. (In general, <math>\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}</math>.)</p>							
<p>NF 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. For example, recognize an incorrect result <math>\frac{2}{5} + \frac{1}{2} = \frac{3}{7}</math>, by observing that <math>\frac{3}{7} &lt; \frac{1}{2}</math>.</p>							

## Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

Standard	Notes	Dates Taught					Mastery
NF 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, e.g., by using visual fraction models or equations to represent the problem. For example, interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$ . If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?							
NF 4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.							
NF 4. a Interpret the product $(a/b) \times q$ as a parts of a partition of $q$ into $b$ equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$ . For example, use a visual fraction model to show $(2/3) \times 4 = 8/3$ , and create a story context for this equation. Do the same with $(2/3) \times (4/5) = 8/15$ . (In general, $(a/b) \times (c/d) = ac/bd$ .)							
NF 4.b Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.							

## Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

Standard	Notes	Dates Taught					Mastery
NF 5. Interpret multiplication as scaling (resizing), by:							
NF 5.a Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.							
NF 5.b Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $\frac{a}{b} = \frac{n \times a}{n \times b}$ to the effect of multiplying $\frac{a}{b}$ by 1.							
NF 6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.							
NF 7. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.							
NF 7.a Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for $(\frac{1}{3}) \div 4$ , and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(\frac{1}{3}) \div 4 = \frac{1}{12}$ because $(\frac{1}{12}) \times 4 = \frac{1}{3}$ .							



Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

Standard	Notes	Dates Taught					Mastery
<p>NF 7.b Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for <math>4 \div (1/5)</math>, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that <math>4 \div (1/5) = 20</math> because <math>20 \times (1/5) = 4</math>.</p>							
<p>NF 7.c Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share <math>1/2</math> lb of chocolate equally? How many <math>1/3</math>-cup servings are in 2 cups of raisins?</p>							

# MEASUREMENT & DATA

Convert like measurement units within a given measurement system.

Standard	Notes	Dates Taught					Mastery
MD 1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.							

Represent and interpret data.

Standard	Notes	Dates Taught					Mastery
MD 2. Make a line plot to display a data set of measurements in fractions of a unit ( $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{8}$ ). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.							

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

Standard	Notes	Dates Taught					Mastery
MD 3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.							
MD 3.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.							
MD 3.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.							

## Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

Standard	Notes	Dates Taught					Mastery
MD.4. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.							
MD 5. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.							
MD. 5.a Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.							
MD 5.b Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.							
MD 5.c Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.							

# GEOMETRY

Graph points on the coordinate plane to solve real-world and mathematical problems.

Standard	Notes	Dates Taught					Mastery
<p>G 1. Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).</p>							
<p>G 2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.</p>							

Classify two-dimensional figures into categories based on their properties.

Standard	Notes	Dates Taught					Mastery
<p>G 3. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.</p>							
<p>G 4. Classify two-dimensional figures in a hierarchy based on properties.</p>							

