

SAUSD Common Core Aligned Curriculum Map: Grade 4 Mathematics

These curriculum maps are designed to address CCSS Mathematics and Literacy outcomes. The overarching focus for all curriculum maps is building student's content knowledge and literacy skills as they develop knowledge about the world.

Each unit provides several weeks of instruction. Each unit also includes various formative and summative assessments.

Taken as a whole, this curriculum map is designed to give teachers recommendations and some concrete strategies to address the shifts required by CCSS.

Focus strongly where the Standards focus	<p><i>SAUSD's approach emphasizes effective instruction framed by performance tasks that engage students and promote inquiry. The tasks are sequenced around a topic leading to the big idea and essential questions in order to provide a clear and explicit purpose for instruction.</i></p> <ul style="list-style-type: none">• Focus requires that we significantly narrow and deepen the scope of content in each grade so that students more deeply experience concepts. Instruction will focus at least 75% on grade level content, with remediation, extension, and application centered on grade level material.• Instruction engages students through cross-curricular concepts and application.• Each unit focuses on implementation of the Math Practices in conjunction with math content.
Coherence: Think across grades, and link to major topics within grades	<p><i>SAUSD recognizes that coherence promotes mathematical sense making. It is critical to think across grades and examine the progressions in the standards to ensure the development of major topics over time. The emphasis on problem solving, reasoning and proof, communication, representation, and connections require students to build comprehension of mathematical concepts, procedural fluency, and productive disposition.</i></p> <ul style="list-style-type: none">• Teachers make coherent connections within and across grade levels through the art of questioning. Problems and activities connect clusters and domains.• A purposeful sequence of lessons build meaning by moving from concrete to abstract, with new learning built upon prior knowledge and connections made to previous learning.• Opportunities are provided for remediation of unfinished learning and extensions for deeper learning within grade level work.

Rigor: In major topics, pursue conceptual understanding, procedural skills and fluency, and application	<p><i>SAUSD’s approach emphasizes increased rigor: Conceptual understanding, procedural skills & fluency, and real-world applications will be taught with equal intensity. These elements may be explicitly addressed separately or at other times combined. Students demonstrate deep conceptual understanding of core math concepts by applying them in new situations, as well as writing and speaking about their understanding. Students will make meaning of content outside of math by applying math concepts to real-world situations.</i></p> <ul style="list-style-type: none"> • Conceptual understanding underpins fluency; fluency is practiced in contextual applications; and applications build conceptual understanding. • Each unit contains a balance of challenging, multiple-step problems to teach new mathematics, and exercises to practice mathematical skills.
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The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council’s report *Adding It Up*: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own efficacy). **The Standards for Mathematical Practice are interwoven into every Unit of Study. Individual lessons may focus on one or more of the Math Practices, but every unit must include all eight:**

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision in computation, vocabulary and argument.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

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How to Read this Document

- The purpose of this document is to provide an overview of the progression of units of study within a particular grade level describing what students will achieve by the end of the year. The work of **Big Ideas and Essential Questions** is to provide an overarching understanding of the mathematics structure that builds a foundation to support the rigor of subsequent grade levels. The standards listed include not only the Mathematics Content Standards, but also the Literacy and ELD Standards by which the students express their learning. The **Final Performance Task** will assess student learning via modeling of complex mathematical situations. Each unit incorporates components of the **SAUSD Theoretical Framework** and the philosophy of **Quality Teaching for English Learners (QTEL)**. Each of the math units of study highlights the Common Core instructional shifts for mathematics of focus, coherence, and rigor.
- First, read each module overview paragraph. This describes the purpose for the unit and the connections with previous and subsequent units. The content standards that are central to each unit are also listed here.
- On the map, note the titles across the year: These show the progression of units drawn from various domains.
- The timeline tells the length of each unit and when each unit should begin and end.

FOURTH GRADE UNITS OF STUDY	
Unit 1	Structure of Whole Numbers In this unit, students will study the place value system to understand the relationship between numbers. They will know the relative sizes of various units of measure. For this year only, the study of negative numbers will be included. This unit centers on Math Content Standards 4.NBT.1, 4.NBT.2, 4.NBT.3
Unit 2	Addition and Subtraction of Whole Numbers Students will fluently add and subtract numbers with multiple digits. They will solve problems involving measurement of distance, time, volume, mass, and money. They will apply the perimeter formula for rectangles. This unit centers on Math Content Standards 4.NBT.4, 4.MD.2, 4.MD.3
Unit 3	Whole Number Multiplication This unit relates repeated addition to the process of multiplication. Students will make visual representations of multiplication situations. They will use variables in algebraic expressions. They will find all the factor pairs for given numbers. They will apply the area formula to rectangles. They will make unit conversions within one system of measurement and solve real life problems using measurement. This unit centers on Math Content Standards 4.OA.1, 4.OA.2, 4.OA.3, 4.OA.4, 4.NBT.5, 4.MD.1, 4.MD.2, 4.MD.3

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Unit 4	<p style="text-align: center;">Algebraic Expressions</p> <p>In this unit, students create expressions using variables. They solve equations by finding the value of a variable. They generalize and analyze number patterns. They complete function tables to solve problems in a real life context. This unit centers on Math Content Standard 4.OA.5</p>
Unit 5	<p style="text-align: center;">Whole Number Division</p> <p>This unit relates repeated subtraction to division. Students will make visual representations of division situations. They will express division as the inverse of multiplication. They will apply division to problem solving situations involving measurement. They will apply the area formula to rectangles with a missing side length. They will make unit conversions within one system of measurement. Scaffolded support is provided for English Language Learners and Students with Disabilities. Support is provided for collaborative conversations, using Math Talk, including sample sentence frames. Classroom connections to the ST Math Program are referenced through the teacher mode. Hands-on lessons using base ten blocks are essential to conceptual understanding. This unit centers on Math Content Standards 4.OA.2, 4.OA.3, 4.OA.4, 4.NBT.6, 4.MD.2, and 4.MD.3.</p>
Unit 6	<p style="text-align: center;">Fraction Equivalence</p> <p>In this unit, students will represent fractions visually on a number line and in an area model. They will compare and order fractions with denominators of 2, 3, 4, 6, 8, 10, 12, and 100. Students apply their knowledge of fraction equivalence to the addition and subtraction of fractions, by creating fractions with like denominators. They will understand multiplication of fractions by whole numbers as repeated addition. Scaffolded support is provided for English Language Learners and Students with Disabilities. Support is provided for collaborative conversations, using Math Talk, including sample sentence frames. Classroom connections to the ST Math Program are referenced through the teacher mode. This unit centers on Math Content Standards 4.NF.1, 4.NF.2, 4.NF.3, 4.NF.4, 4.NF.5, 4.MD.4</p>
Unit 7	<p style="text-align: center;">Decimals</p> <p>Students will extend their understanding of the base ten number system to the addition and subtraction of decimals. They will make visual representations of decimals using a number line and an area model. They will make unit conversions within the metric system of measurement. This unit centers on Math Content Standards 4.NF.5, 4.NF.6, 4.NF.7, 4.MD.1, 4.MD.2</p>
Unit 8	<p style="text-align: center;">Collecting Data & Angle Measurement</p> <p>Students will measure angles with protractors and understand that angles consist of two rays with a single end point. They will collect data and represent information in charts and graphs. This unit centers on Math Content Standards 4.MD.4, 4.MD.5, 4.MD.6, 4.MD.7, 4.G.1</p>
Unit 9	<p style="text-align: center;">Lines, Angles & 2-Dimensional Shapes</p> <p>The 4th grade Geometry Unit was based on research that explains how students develop their understanding of geometric concepts. In order to ensure students success in geometry and to develop their ability to think and reason in a geometric context, <i>The van Hiele Model of the Development of Geometric Thought</i> was utilized. The van Hiele model is a sequential model that has a five-level hierarchy of geometric thinking. In this unit we will be addressing the first three levels: visualization, analysis, and informal</p>

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deduction. Students will compare and contrast triangles and rectangles, sort objects based upon the presence or absence of parallel or perpendicular lines, identify angles as acute, right, or obtuse, based upon the portion of a circle shown, create a foldable to display geometric terms, conduct a close read with a video clip about polygons, and create plane geometric figures with hands-on materials. The final performance task will be to create a map utilizing all the geometric components explored throughout the unit. Scaffolded support is provided for English Language Learners and Students with Disabilities. Support is provided for collaborative conversations, using Math Talk, including sample sentence frames. Classroom connections to the ST Math Program are referenced through the teacher mode.

This unit centers on **Math Content Standards 4.G.1, 4.G.2, and 4.G.3, 4.MD5**

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TIMELINE	2 Weeks Early September	4 Weeks Late September to Mid-October	4 Weeks Late October to Late November
TRIMESTER 1	UNIT 1	UNIT 2	UNIT 3
TITLE	Structure of Whole Numbers	Addition and Subtraction of Whole Numbers	Whole Number Multiplication
END OF UNIT PERFORMANCE TASK	Create a flipbook to illustrate the base ten system of numbers.	Write and solve a word problem to depict a given addition or subtraction problem.	Calculate the area of the classroom.
BIG IDEAS AND ESSENTIAL QUESTION	<p>Big Idea: Quantities can be purposefully represented and compared in many ways.</p> <ul style="list-style-type: none"> How does our place value system work? Why is the number to the left ten times greater than the number to the right? 	<p>Big Idea: Quantities can be combined and separated in many ways.</p> <ul style="list-style-type: none"> What is the purpose of the algorithm you use for adding? What is the purpose of the algorithm you use for subtracting? How do measurement units help us to understand what is being measured? What does perimeter help you understand? 	<p>Big Idea: Quantities can be grouped into many different amounts.</p> <ul style="list-style-type: none"> How does repeated addition relate to multiplication? How do factors relate to multiplication? How do we make unit conversions? How do we use multiplication to find area?
COMPLEX TEXTS / RESOURCES	HM Chapters 1, 2	HM Chapters 3, 4, 5, 15.2, 27.2	HM Chapters 10, 11, 15.3, 15.4, 15.5, 27.1, 27.3, 27.4, 27.5
MATH CONTENT STANDARDS CENTRAL TO THIS UNIT	<p>4.NBT.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.</p> <p>4.NBT.2 Read, write & compare multi-digit numbers using base-ten numerals, number names, and expanded form.</p> <p>4.NBT.3 Use place value understanding to round multi-digit whole numbers to any place.</p>	<p>4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p>4.MD.2 Solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money. Represent measurement quantities using diagrams.</p> <p>4.MD.3 Apply the perimeter formula for rectangles.</p>	<p>4.AO.1 Interpret a multiplication equation as a comparison.</p> <p>4.AO.2 Multiply to solve word problems involving multiplicative comparison.</p> <p>4.AO.3 Solve multistep word problems posed with whole numbers and having whole-number answer. Represent these problems using equations with a letter standing for the unknown quantity.</p> <p>4.AO.4 Find all factor pairs for a whole number in the range 1-100.</p> <p>4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers. Illustrate and explain the calculation.</p>

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			<p>4.MD.1 Know relative sizes of measurement units within one system of units. Record measurement equivalents in a two-column table.</p> <p>4.MD.2 Solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money and expressing measurements given in a larger unit in terms of a smaller unit.</p> <p>4.MD.3 Apply the area formula for rectangles.</p>
<p>STANDARDS OF MATHEMATICAL PRACTICE CENTRAL TO THIS UNIT</p>	<p>MP2 Students recognize that a number represents a specific quantity. They connect the quantity to written symbols and create a logical representation of the problem at hand, considering both the appropriate units involved and the meaning of quantities.</p> <p>MP7 Students look closely to discover a pattern or structure. They generate number or shape patterns that follow a given rule.</p>	<p>MP1 Students may use concrete objects or pictures to help them conceptualize and solve problems.</p> <p>MP3 Students not only explain their own thinking, but listen to others' explanations.</p> <p>MP4 Students experiment with representing problem situations in multiple ways including numbers, words, drawing pictures, using objects, making a chart, list or graph, and creating equations.</p> <p>MP5 Students use measurement tools to understand the relative size of units within a system and express measurements given in larger units in terms of smaller units.</p> <p>MP6 Students are careful about specifying the units of measure and state the meaning of the symbols they choose.</p> <p>MP8 Students notice repetitive actions in computation to make generalizations.</p>	<p>MP1 Students know that doing mathematics involves solving problems and discussing how they solved them.</p> <p>MP3 Students may construct arguments using concrete referents, such as objects, pictures, drawings, and actions.</p> <p>MP4 Students need opportunities to connect different representations and explain the connections.</p> <p>MP6 Students try to use clear and precise language in their discussions with others and in their own reasoning.</p> <p>MP7 Students use properties of operations to explain calculations (partial products model). They relate representations of counting problems such as tree diagrams and arrays to the multiplication principal of counting.</p> <p>MP8 Students use models to explain calculations and understand how algorithms work.</p>
<p>READING INFORMATIONAL STANDARDS CENTRAL TO THIS UNIT</p>	<p>3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).</p> <p>6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases.</p>		
<p>WRITING STANDARDS</p>			
<p>LISTENING AND SPEAKING STANDARDS</p>	<p>1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>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.</p> <p>b. Follow agreed-upon rules for discussions and carry out assigned roles.</p> <p>c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of</p>		

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	<p>others.</p> <p>d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.</p> <p>4. Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p>		
ELD STANDARDS			
CROSS-CONTENT/ REAL WORLD CONNECTIONS	Compare populations of cities in California	Measurement of length and perimeter	Multiple units of measurement Area of rectangles in real life

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TIMELINE	3 Weeks December	5 Weeks January to Early February	6 Weeks Late February to Mid-March
TRIMESTER 2	UNIT 4	UNIT 5	UNIT 6
TITLE	Algebraic Expressions	Whole Number Division	Fraction Equivalence
END OF UNIT PERFORMANCE TASK	Write a story problem for a given expression. Solve the problem, explaining the steps in the process.	Solve problems in real life context, explaining your thinking.	Create a floor plan of a house with given fractional parts for each room.
BIG IDEAS AND ESSENTIAL QUESTION	<p>Big Idea: Quantities can be expressed using letters to represent numbers.</p> <ul style="list-style-type: none"> ◦ How can a letter represent a number? • What are the differences between an expression, an equation, and an inequality? • How can we find the value of a variable? • How can we use a function table to solve problems? 	<p>Big Idea: Quantities can be divided into equal groups.</p> <ul style="list-style-type: none"> ◦ How is an array related to an area model? • How is repeated subtraction related to equal groups in division? • What are the patterns that occur in division? • How is the remainder expressed? • How can we illustrate and explain division problems? 	<p>Big Idea: Relationships between portions can be represented in many ways.</p> <ul style="list-style-type: none"> • What is a fraction? • How can we represent fractions using an area model? • How can we represent fractions on a number line? • How can we represent and compare fractions that are related to different wholes?
COMPLEX TEXTS / RESOURCES	HM Chapters 7, 8, 9	Getting to the Core: Division Unit	Getting to the Core: Fraction Equivalence Unit
MATH CONTENT STANDARDS CENTRAL TO THIS UNIT	4.AO.5 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.	<p>4.AO.2 Divide to solve word problems involving multiplicative comparison.</p> <p>4.AO.3 Solve multistep word problems posed with whole numbers and having whole-number answer. Represent these problems using equations with a letter standing for the unknown quantity.</p> <p>4.AO.4 Find all factor pairs for a whole number in the range 1-100.</p> <p>4.NBT.6 Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors. Illustrate and explain the calculation.</p> <p>4.MD.2 Solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money and expressing measurements given in a larger unit in terms of a smaller unit.</p>	<p>4.NF.1 Explain why a fraction a/b is equivalent to fraction $(axb)/(nxb)$ by using visual fraction models.</p> <p>4.NF.2 Compare two fractions with different numerators and different denominators.</p> <p>4.NF.3 Understand a fractional a/b with $a > 1$ as a sum of fraction $1/b$.</p> <p>4.NF.3a Understand addition and subtraction of fractions.</p> <p>4.NF.3b Decompose a fraction as a sum of fractions with the same denominator in more than one way.</p> <p>4.NF.3c Add and subtract mixed numbers with like denominators.</p> <p>4.NF.3d Solve word problems involving addition</p>

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		4.MD.3 Apply the area formula for rectangles.	<p>and subtraction of fractions.</p> <p>4.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.</p> <p>4.NF.4a Understand a fraction a/b as a multiple of $1/b$.</p> <p>4.NF.4b Understand a multiple of a/b as a multiple of $1/b$.</p> <p>4.NF.4c Solve word problems involving multiplication of a fraction by a whole number.</p> <p>4.NF.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.</p> <p>4.MD.4 Make a line plot to display a data set of measurement in fractions of a unit ($1/2$, $1/4$, $1/8$).</p>
STANDARDS OF MATHEMATICAL PRACTICE CENTRAL TO THIS UNIT	MP8 Students look for number patterns and create charts and function tables.	<p>MP1 Students explain to themselves the meaning of a problem and look for ways to solve it.</p> <p>MP3 Students decide if explanations make sense and ask appropriate questions.</p> <p>MP4 Students experiment with representing problem situations in multiple ways and should be able to use all of these representations as needed.</p> <p>MP8 Students examine patterns and generate their own algorithms.</p>	<p>MP2 Students recognize that a fraction represents a specific quantity. They connect the fraction to written symbols and create a logical representation of the problem, considering the meaning of the fraction.</p> <p>MP5 Students may use graph paper or a number line to represent and compare fractions.</p> <p>MP6 Students use appropriate labels when creating a line plot.</p> <p>MP8 Students use visual fraction models to write equivalent fractions.</p>
READING INFORMATIONAL STANDARDS CENTRAL TO THIS UNIT	<p>3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).</p> <p>6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases.</p>		
WRITING STANDARDS			
LISTENING AND SPEAKING STANDARDS	<p>1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>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.</p> <p>b. Follow agreed-upon rules for discussions and carry out assigned roles.</p> <p>c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of</p>		

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	<p>others.</p> <p>d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.</p> <p>4. Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p>		
ELD STANDARDS			
CROSS-CONTENT/ REAL WORLD CONNECTIONS	<p>Solve real life problems using function tables or equations.</p>	<p>Pose problems about transporting students on field trips</p> <p>Ordering boxes of pencils for schools</p> <p>Measuring height</p> <p>OCR theme of money: students write word problems involving division of money</p> <p>Science unit of Rocks and Minerals: students make arrays of rocks in a rock collection</p>	<p>Create a floor plan of a house with given fractional parts for each room.</p>

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TIMELINE	3 Weeks Late March to April	2 Weeks Late April to May	3 Weeks Late May to June
TRIMESTER 3	Unit 7	UNIT 8	
TITLE	Decimals	Collecting Data & Angle Measurement	Lines, Angles, and 2-Dimensional Shapes
END OF UNIT PERFORMANCE TASK	Calculate the volume of a tank of water, by measuring in centimeters and converting to liters.	Make a scale-model drawing of something, using centimeters to represent meters or inches to represent miles.	Design a map, which includes various types of lines and geometric shapes.
BIG IDEAS AND ESSENTIAL QUESTION	<p>Big Idea: Portions can be combined or separated in many ways.</p> <ul style="list-style-type: none"> • How are fractions and decimals related? • How does the base ten number system help us to understand decimals? • How are decimals used in the metric measurement system? • What are some ways that decimals can be combined or separated? • How can addition and subtraction of decimals be applied to real life situations? 	<p>Big Ideas: Objects can be described, classified, measured, and analyzed based on their attributes.</p> <ul style="list-style-type: none"> • What does angle measurement mean? • How are angles found in real life situations? • How can we use only a right angle to classify all angles? 	<p>Big Idea: Objects can be described, classified, and analyzed based on their attributes.</p> <ul style="list-style-type: none"> • How can parallel and perpendicular lines be identified? • How can we use only a right angle to classify all angles? • What geometric components make up figures? • What properties do geometric objects have in common? • What is symmetry?
COMPLEX TEXTS / RESOURCES	HM Chapters 19, 20 Review 15.4, 15.5	HM Chapters 23.1, 23.3, 23.4, 23.5 (Measurement of Angles TBD)	Getting to the Core: Geometry Unit
MATH CONTENT STANDARDS CENTRAL TO THIS UNIT	<p>4.NF.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.</p> <p>4.NF.6 Use decimal notation for fractions with denominators 10 or 100.</p> <p>4.NF.7 Compare two decimals to hundredths by reasoning about their size. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions.</p> <p>4.MD.1 Know relative sizes of measurement units</p>	<p>4.MD.4 Make a line plot to display a data set of measurement in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$).</p> <p>4.MD.5 Recognize angles as geometric shapes that are formed whenever two rays share a common endpoint.</p> <p>4.MD.5a An angle is measured with reference to a circle with its center at the common endpoint of the rays.</p> <p>4.MD.5b An angle that turns through n one-degree angles is said to have an angle measurement of n degrees.</p>	<p>4.MD.5 Recognize angles as geometric shapes that are formed whenever two rays share a common endpoint.</p> <p>4.G.1 Draw & identify points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines.</p> <p>4.G.2 Classify 2-D figures based on parallel or perpendicular lines, or angles of a specified size. Recognize & identify right triangles.</p> <p>4.G.3 Identify line-symmetric figures and draw lines of symmetry.</p>

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	<p>within one system of units. Record measurement equivalents in a two-column table.</p> <p>4.MD.2 Solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money.</p>	<p>4.MD.6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.</p> <p>4.MD.7 Recognize angle measurement as additive.</p> <p>4.G.1 Draw & identify points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines.</p>	
STANDARDS OF MATHEMATICAL PRACTICE CENTRAL TO THIS UNIT		MP5 Students use protractors to measure angles.	MP7 Students look closely to discover a pattern or structure. They generate number or shape patterns that follow a given rule.
READING INFORMATIONAL STANDARDS CENTRAL TO THIS UNIT	<p>3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).</p> <p>6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases.</p>		
WRITING STANDARDS			
LISTENING AND SPEAKING STANDARDS	<p>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>4.1.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 discussions.</p> <p>4.2.b Follow agreed-upon rules for discussions and carry out assigned roles.</p> <p>4.2.c Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remark of others.</p> <p>4.1.d Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.</p>		
ELD STANDARDS			
CROSS-CONTENT/ REAL WORLD CONNECTIONS	Calculate the volume of a tank of water, by measuring in centimeters and converting to liters.	Compare measurements within a given system (metric or common)	<p>Parallel and perpendicular lines in the world around us (streets, buildings, signs)</p> <p>Map skills</p>

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