
Grade 1 | Tennessee Academic Standards for Mathematics Correlation to *Eureka Math*[®]

About *Eureka Math*

Created by Great Minds[®], a mission-driven Public Benefit Corporation, *Eureka Math*[®] helps teachers deliver unparalleled math instruction that provides students with a deep understanding and fluency in math. Crafted by teachers and math scholars, the curriculum carefully sequences the mathematical progressions to maximize coherence from Prekindergarten through Precalculus—a principle tested and proven to be essential in students’ mastery of math.

Teachers and students using *Eureka Math* find the trademark “Aha!” moments in *Eureka Math* to be a source of joy and inspiration, lesson after lesson, year after year.

Aligned

Great Minds offers detailed analyses that demonstrate how each grade of *Eureka Math* aligns with specific state standards. Access these free alignment studies at greatminds.org/state-studies.

Data

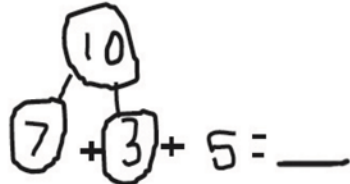
Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

Full Suite of Resources

Great Minds offers the *Eureka Math* curriculum as PDF downloads for free, noncommercial use. Access the free PDFs at greatminds.org/math/curriculum.

The teacher-writers who created the curriculum have also developed essential resources, available only from Great Minds, including the following:

- Printed material in English and Spanish
- Digital resources
- Professional development
- Classroom tools and manipulatives
- Teacher support materials
- Parent resources

Standards for Mathematical Practice	Aligned Components of <i>Eureka Math</i>
<p>MP.1 Make sense of problems and persevere in solving them.</p>	<p>Lessons in every module engage students in mathematical practices. These are designated in the Module Overview and labeled in lessons. For example:</p>
<p>MP.2 Reason abstractly and quantitatively.</p>	<p>A STORY OF UNITS Lesson 2 1•2</p>
<p>MP.3 Construct viable arguments and critique the reasoning of others.</p>	<p>T: So, even though they added two different numbers together first, did they get the same total? S: Yes! T: Wow! Okay. Let's try this again. Let's use Bob's strategy of making ten from two of our addends. (Write $7 + 5 + 3 = \underline{\quad}$.) Write the equation. Draw to show the three amounts. S: (Draw to show the three quantities.) T: What two numbers make ten? S: 7 and 3. T: Good. Show that 7 and 3 make ten in your drawing by circling like we did yesterday with the string.</p>
<p>MP.4 Model with mathematics.</p>	<p>S: (Circle the 3 and the 7, making a group of 10.) T: Here is a new number sentence that shows what numbers you added first. (Write $7 + 3 + 5 = \underline{\quad}$.)</p>
<p>MP.5 Use appropriate tools strategically.</p>	<p>T: I'll make a number bond to show how you made ten from two numbers. (Bond the 7 and 3 to make ten.) T: You just showed 10 and 5 more, which equals...? S: 15. T: Good. I'll show how we solved for the unknown. I'll write the new number sentence explaining what we just did, starting with 10.</p>
<p>MP.6 Attend to precision.</p>	<p>S: (Solve $7 + 3 + 5 = \underline{\quad}$ while the teacher writes $10 + 5 = 15$.) T: Jo showed us at the beginning of the lesson that she could solve from left to right, without moving the addends around, in order to get the same answer as Bob. Work and talk with your partner to see if this is true again!</p>
<p>MP.7 Look for and make use of structure.</p>	<p>Repeat this process using the following suggested sequence: $9 + 2 + 1$, $2 + 4 + 8$ (highlighting that students might begin with the 8 rather than the 2), $4 + 3 + 6$, and $3 + 8 + 7$. Students complete the number sentence while the teacher completes the drawing for the third example.</p>
<p>MP.8 Look for and express regularity in repeated reasoning.</p>	<p>MP.7</p> 

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:
Addends should be chosen so that students can easily identify the partners to ten, recognizing that they can add these two addends first, regardless of where they are positioned within the number sentence. If students are not fluent with 7 and 3, they may be replaced with 9 and 1, respectively.

Operations and Algebraic Thinking

1.OA.A Represent and solve problems involving addition and subtraction.

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1.OA.A.1

Add and subtract within 20 to solve contextual problems, with unknowns in all positions, involving situations of add to, take from, put together/take apart, and compare. Use objects, drawings, and equations with a symbol for the unknown number to represent the problem.

G1 M1 Topic B: Counting On from Embedded Numbers

G1 M1 Topic C: Addition Word Problems

G1 M1 Lesson 25: Solve add to with change unknown math stories with addition, and relate to subtraction. Model with materials, and write corresponding number sentences.

G1 M1 Topic H: Subtraction Word Problems

G1 M2 Lesson 1: Solve word problems with three addends, two of which make ten.

G1 M2 Lesson 3: Make ten when one addend is 9.

G1 M2 Lesson 4: Make ten when one addend is 9.

G1 M2 Lesson 7: Make ten when one addend is 8.

G1 M2 Lesson 8: Make ten when one addend is 8.

G1 M2 Lesson 11: Share and critique peer solution strategies for put together with total unknown word problems.

G1 M2 Lesson 12: Solve word problems with subtraction of 9 from 10.

G1 M2 Lesson 13: Solve word problems with subtraction of 9 from 10.

G1 M2 Lesson 21: Share and critique peer solution strategies for take from with result unknown and take apart with addend unknown word problems from the teens.

G1 M2 Lesson 22: Solve put together/take apart with addend unknown word problems, and relate counting on to the take from ten strategy.

G1 M2 Lesson 23: Solve add to with change unknown problems, relating varied addition and subtraction strategies.

G1 M2 Lesson 24: Strategize to solve take from with change unknown problems.

G1 M2 Lesson 27: Solve addition and subtraction problems decomposing and composing teen numbers as 1 ten and some ones.

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<p>1.OA.A.1 <i>continued</i></p>	<p>G1 M2 Lesson 28: Solve addition problems using ten as a unit, and write two-step solutions.</p> <p>G1 M2 Lesson 29: Solve subtraction problems using ten as a unit, and write two-step solutions.</p> <p>G1 M3 Lesson 9: Answer compare with difference unknown problems about lengths of two different objects measured in centimeters.</p> <p>G1 M3 Lesson 12: Ask and answer varied word problem types about a data set with three categories.</p> <p>G1 M3 Lesson 13: Ask and answer varied word problem types about a data set with three categories.</p> <p>G1 M4 Topic E: Varied Problem Types Within 20</p> <p>G1 M6 Topic A: Comparison Word Problems</p> <p>G1 M6 Topic F: Varied Problem Types Within 20</p>
<p>1.OA.A.2</p> <p>Add three whole numbers whose sum is within 20 to solve contextual problems using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p>	<p>G1 M2 Lesson 1: Solve word problems with three addends, two of which make ten.</p> <p>G1 M2 Lesson 2: Use the associative and commutative properties to make ten with three addends.</p>

Operations and Algebraic Thinking

1.OA.B Understand and apply properties of operations and the relationship between addition and subtraction.

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1.OA.B.3

Apply properties of operations (additive identity, commutative, and associative) as strategies to add and subtract.

G1 M1 Lesson 19: Represent the same story scenario with addends repositioned (the commutative property).

G1 M1 Lesson 20: Apply the commutative property to count on from a larger addend.

G1 M1 Lesson 22: Look for and make use of repeated reasoning on the addition chart by solving and analyzing problems with common addends.

G1 M1 Lesson 24: Practice to build fluency with facts to 10.

G1 M2 Topic A: Counting On or Making Ten to Solve Result Unknown and Total Unknown Problems

G1 M2 Lesson 12: Solve word problems with subtraction of 9 from 10.

G1 M2 Lesson 13: Solve word problems with subtraction of 9 from 10.

G1 M2 Lesson 14: Model subtraction of 9 from teen numbers.

G1 M2 Lesson 15: Model subtraction of 9 from teen numbers.

G1 M2 Lesson 16: Relate counting on to making ten and taking from ten.

G1 M2 Lesson 17: Model subtraction of 8 from teen numbers.

G1 M2 Lesson 18: Model subtraction of 8 from teen numbers.

G1 M2 Lesson 19: Compare efficiency of counting on and taking from ten.

G1 M4 Topic D: Addition of Tens or Ones to a Two-Digit Number

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<p>1.OA.B.4</p> <p>Understand the relationship between addition and subtraction by representing subtraction as an unknown-addend problem.</p>	<p>G1 M1 Topic G: Subtraction as an Unknown Addend Problem</p> <p>G1 M1 Lesson 29: Solve take apart with addend unknown math stories with math drawings, equations, and statements, circling the known part to find the unknown.</p> <p>G1 M1 Lesson 30: Solve add to with change unknown math stories with drawings, relating addition and subtraction.</p> <p>G1 M1 Lesson 31: Solve take from with change unknown math stories with drawings.</p> <p>G1 M1 Lesson 32: Solve put together/take apart with addend unknown math stories.</p> <p>G1 M2 Lesson 16: Relate counting on to making ten and taking from ten.</p> <p>G1 M2 Lesson 19: Compare efficiency of counting on and taking from ten.</p> <p>G1 M2 Lesson 21: Share and critique peer solution strategies for take from with result unknown and take apart with addend unknown word problems from the teens.</p> <p>G1 M2 Lesson 22: Solve put together/take apart with addend unknown word problems, and relate counting on to the take from ten strategy.</p> <p>G1 M2 Lesson 23: Solve add to with change unknown problems, relating varied addition and subtraction strategies.</p> <p>G1 M2 Lesson 24: Strategize to solve take from with change unknown problems.</p>
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Operations and Algebraic Thinking

1.OA.C Add and subtract within 20.

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<p>1.OA.C.5</p> <p>Add and subtract within 20 using strategies such as counting on, counting back, making 10, related known facts, and composing/decomposing numbers with an emphasis on making ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ or adding $6 + 7$ by creating the known equivalent $6 + 4 + 3 = 10 + 3 = 13$ or $6 + 6 + 1 = 12 + 1$).</p>	<p>G1 M1 Topic A: Embedded Numbers and Decompositions</p> <p>G1 M1 Topic B: Counting On from Embedded Numbers</p> <p>G1 M1 Topic C: Addition Word Problems</p> <p>G1 M1 Topic D: Strategies for Counting On</p> <p>G1 M1 Topic F: Development of Addition Fluency Within 10</p> <p>G1 M1 Topic G: Subtraction as an Unknown Addend Problem</p> <p>G1 M1 Topic I: Decomposition Strategies for Subtraction</p> <p>G1 M1 Topic J: Development of Subtraction Fluency Within 10</p> <p>G1 M2 Lesson 2: Use the associative and commutative properties to make ten with three addends.</p> <p>G1 M2 Lesson 3: Make ten when one addend is 9.</p> <p>G1 M2 Lesson 4: Make ten when one addend is 9.</p> <p>G1 M2 Lesson 5: Compare efficiency of counting on and making ten when one addend is 9.</p> <p>G1 M2 Lesson 6: Use the commutative property to make ten.</p> <p>G1 M2 Lesson 7: Make ten when one addend is 8.</p> <p>G1 M2 Lesson 8: Make ten when one addend is 8.</p> <p>G1 M2 Lesson 9: Compare efficiency of counting on and making ten when one addend is 8.</p> <p>G1 M2 Lesson 10: Solve problems with addends of 7, 8, and 9.</p> <p>G1 M2 Lesson 11: Share and critique peer solution strategies for put together with total unknown word problems.</p> <p>G1 M2 Topic B: Counting On or Taking from Ten to Solve Result Unknown and Total Unknown Problems</p>

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<p>1.OA.C.5 <i>continued</i></p>	<p>G1 M2 Lesson 25: Strategize and apply understanding of the equal sign to solve equivalent expressions.</p> <p>G1 M2 Lesson 28: Solve addition problems using ten as a unit, and write two-step solutions.</p> <p>G1 M2 Lesson 29: Solve subtraction problems using ten as a unit, and write two-step solutions.</p> <p>G1 M6 Topic G: Culminating Experiences</p>
<p>1.OA.C.6</p> <p>Use mental strategies flexibly and efficiently to develop fluency in addition and subtraction within 20. By the end of grade 1, know all sums and differences up to 10.</p>	<p>G1 M1 Lesson 24: Practice to build fluency with facts to 10.</p> <p><i>Supplemental material is necessary to fully address this standard.</i></p>

Operations and Algebraic Thinking

1.OA.D Work with addition and subtraction equations.

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<p>1.OA.D.7</p> <p>Understand the meaning of the equal sign (e.g., $6 = 6$; $5 + 2 = 4 + 3$; $7 = 8 - 1$). Determine if equations involving addition and subtraction are true or false.</p>	<p>G1 M1 Lesson 17: Understand the meaning of the equal sign by pairing equivalent expressions and constructing true number sentences.</p> <p>G1 M1 Lesson 18: Understand the meaning of the equal sign by pairing equivalent expressions and constructing true number sentences.</p> <p>G1 M2 Lesson 25: Strategize and apply understanding of the equal sign to solve equivalent expressions.</p>

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<p>1.OA.D.8</p> <p>Determine the unknown whole number in an addition or subtraction equation with sums/differences within 20, with the unknown in any position (e.g., $8 + ? = 11$, $5 = ? - 3$, $6 + 6 = ?$).</p>	<p>G1 M1 Lesson 11: Solve add to with change unknown math stories as a context for counting on by drawing, writing equations, and making statements of the solution.</p> <p>G1 M1 Lesson 12: Solve add to with change unknown math stories using 5-group cards.</p> <p>G1 M1 Lesson 13: Tell put together with result unknown, add to with result unknown, and add to with change unknown stories from equations.</p> <p>G1 M1 Lesson 16: Count on to find the unknown part in missing addend equations such as $6 + \underline{\quad} = 9$. Answer, “How many more to make 6, 7, 8, 9, and 10?”</p> <p>G1 M1 Lesson 30: Solve add to with change unknown math stories with drawings, relating addition and subtraction.</p> <p>G1 M1 Lesson 31: Solve take from with change unknown math stories with drawings.</p> <p>G1 M1 Lesson 32: Solve put together/take apart with addend unknown math stories.</p> <p>G1 M4 Topic E: Varied Problem Types Within 20</p>
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Number and Operations in Base Ten

1.NBT.A Extend the counting sequence.

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<p>1.NBT.A.1</p> <p>Count to 120, by ones, twos, and fives starting at any multiple of that number. Count backward from 20. Read and write numbers to 120 and represent a quantity of objects with a written number.</p>	<p>G1 M4 Lesson 1: Compare the efficiency of counting by ones and counting by tens.</p> <p>G1 M6 Lesson 7: Count and write numbers to 120. Use Hide Zero cards to relate numbers 0 to 20 to 100 to 120.</p> <p>G1 M6 Lesson 8: Count to 120 in unit form using only tens and ones. Represent numbers to 120 as tens and ones on the place value chart.</p> <p>G1 M6 Lesson 9: Represent up to 120 objects with a written numeral.</p>
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<p>1.NBT.A.2</p> <p>Recognize, describe, extend, and create patterns when counting by ones, twos, fives, and tens and use those patterns to predict the next number in the counting sequence up to 120 through counting or building with concrete materials.</p>	<p>G1 M1 L16: Count on to find the unknown part in missing addend equations such as $6 + \underline{\quad} = 9$. Answer, “How many more to make 6, 7, 8, 9, and 10?”</p> <p>G1 M1 L23: Look for and make use of structure on the addition chart by looking for and coloring problems with the same total.</p> <p>G1 M1 L38: Look for and make use of repeated reasoning and structure, using the addition chart to solve subtraction problems.</p> <p>G1 M4 L15: Use single-digit sums to support solutions for analogous sums to 40.</p> <p>G1 M6 L7: Count and write numbers to 120. Use Hide Zero cards to relate numbers 0 to 20 to 100 to 120.</p> <p>Supplemental material is necessary to fully address this standard.</p>
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Number and Operations in Base Ten

1.NBT.B Understand place value.

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<p>1.NBT.B.3</p> <p>Know that the digits of a two-digit number represent groups of tens and ones (e.g., 39 can be represented as 39 ones, 2 tens and 19 ones, or 3 tens and 9 ones).</p>	<p>G1 M2 Topic D: Varied Problems with Decompositions of Teen Numbers as 1 Ten and Some Ones</p> <p>G1 M4 Topic A: Tens and Ones</p> <p>G1 M4 Lesson 23: Interpret two-digit numbers as tens and ones, including cases with more than 9 ones.</p> <p>G1 M6 Lesson 3: Use the place value chart to record and name tens and ones within a two-digit number up to 100.</p> <p>G1 M6 Lesson 4: Write and interpret two-digit numbers to 100 as addition sentences that combine tens and ones.</p> <p>G1 M6 Lesson 24: Use dimes and pennies as representations of numbers to 120.</p>
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<p>1.NBT.B.4</p> <p>Compare two two-digit numbers based on the meanings of the digits in each place and use the symbols $>$, $=$, and $<$ to show the relationship.</p>	<p>G1 M4 Topic B: Comparison of Pairs of Two-Digit Numbers</p> <p>G1 M6 Lesson 6: Use the symbols $>$, $=$, and $<$ to compare quantities and numerals to 100.</p>
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Number and Operations in Base Ten

1.NBT.C Use place value understanding and properties of operations to add and subtract.

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<p>1.NBT.C.5</p> <p>Add a two-digit number to a one-digit number and a two-digit number to a multiple of ten (within 100). Use concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction to explain the reasoning used.</p>	<p>G1 M4 Lesson 12: Add tens to a two-digit number.</p> <p>G1 M4 Topic D: Addition of Tens or Ones to a Two-Digit Number</p> <p>G1 M4 Lesson 24: Add a pair of two-digit numbers when the ones digits have a sum less than or equal to 10.</p> <p>G1 M4 Lesson 25: Add a pair of two-digit numbers when the ones digits have a sum less than or equal to 10.</p> <p>G1 M4 Lesson 26: Add a pair of two-digit numbers when the ones digits have a sum greater than 10.</p> <p>G1 M4 Lesson 27: Add a pair of two-digit numbers when the ones digits have a sum greater than 10.</p> <p>G1 M4 Lesson 28: Add a pair of two-digit numbers with varied sums in the ones.</p> <p>G1 M4 Lesson 29: Add a pair of two-digit numbers with varied sums in the ones.</p> <p>G1 M6 Topic C: Addition to 100 Using Place Value Understanding</p> <p>G1 M6 Topic D: Varied Place Value Strategies for Addition to 100</p>
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<p>1.NBT.C.6</p> <p>Mentally find 10 more or 10 less than a given two-digit number without having to count by ones and explain the reasoning used.</p>	<p>G1 M4 Lesson 5: Identify 10 more, 10 less, 1 more, and 1 less than a two-digit number.</p> <p>G1 M4 Lesson 6: Use dimes and pennies as representations of tens and ones.</p> <p>G1 M6 Lesson 5: Identify 10 more, 10 less, 1 more, and 1 less than a two-digit number within 100.</p>
<p>1.NBT.C.7</p> <p>Subtract multiples of 10 from any number in the range of 10–99 using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p>	<p>G1 M4 Lesson 11: Add and subtract tens from a multiple of 10.</p> <p>G1 M6 Lesson 10: Add and subtract multiples of 10 from multiples of 10 to 100, including dimes.</p>

Measurement and Data

1.MD.A Measure lengths indirectly and by iterating length units.

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<p>1.MD.A.1</p> <p>Order three objects by length. Compare the lengths of two objects indirectly by using a third object.</p>	<p>G1 M3 Topic A: Indirect Comparison in Length Measurement</p> <p>G1 M3 Lesson 6: Order, measure, and compare the length of objects before and after measuring with centimeter cubes, solving compare with difference unknown word problems.</p>
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<p>1.MD.A.2</p> <p>Measure the length of an object using non-standard units (paper clips, cubes, etc.) and express this length as a whole number of units.</p>	<p>G1 M3 Lesson 4: Express the length of an object using centimeter cubes as length units to measure with no gaps or overlaps.</p> <p>G1 M3 Lesson 5: Rename and measure with centimeter cubes, using their standard unit name of centimeters.</p> <p>G1 M3 Topic C: Non-Standard and Standard Length Units</p>
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Measurement and Data

1.MD.B Work with time and money.

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<p>1.MD.B.3</p> <p>Recognize a clock as a measurement tool. Tell and write time in hours and half-hours using analog and digital clocks.</p>	<p>G1 M5 Topic D: Application of Halves to Tell Time</p>
<p>1.MD.B.4</p> <p>Count the value of a set of like coins less than one dollar using the ¢ symbol only.</p>	<p>G1 M4 Lesson 6: Use dimes and pennies as representations of tens and ones.</p> <p>G1 M6 Topic E: Coins and Their Values</p> <p><i>Supplemental material is necessary to fully address this standard.</i></p>

Measurement and Data

1.MD.C Represent and interpret data.

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<p>1.MD.C.5</p> <p>Organize, represent, and interpret data with up to three categories using pictographs, bar graphs, and tally charts. Ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.</p>	<p>G1 M3 Topic D: Data Interpretation</p>
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Geometry

1.G.A Reason about shapes/solids and their attributes.

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<p>1.G.A.1</p> <p>Distinguish between attributes that define a shape (e.g., number of sides and vertices) versus attributes that do not define the shape (e.g., color, orientation, overall size); build and draw two-dimensional shapes to possess defining attributes.</p>	<p>G1 M5 Topic A: Attributes of Shapes</p>
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<p>1.G.A.2</p> <p>Create a composite figure and use the composite figure to make new figures by using two-dimensional shapes (rectangles, squares, hexagons, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional solids (cubes, spheres, rectangular prisms, cones, and cylinders).</p>	<p>G1 M5 Topic B: Part-Whole Relationships Within Composite Shapes</p>
<p>1.G.A.3</p> <p>Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of, the shares. Understand for these examples that partitioning into more equal shares creates smaller shares.</p>	<p>G1 M5 Topic C: Halves and Quarters of Rectangles and Circles</p> <p>G1 M5 Lesson 11: Recognize halves within a circular clock face and tell time to the half-hour.</p> <p>G1 M5 Lesson 12: Recognize halves within a circular clock face and tell time to the half-hour.</p> <p>G1 M5 Lesson 13: Recognize halves within a circular clock face and tell time to the half-hour.</p>