

Eureka Math² Level 2 Correlation to
Connecticut Model Curriculum

Level 2: Ten Tens			
Model Unit Name	Model Unit Standards	Lessons	Pacing Lessons that address concepts in more than one unit are only counted once.
Fact Strategies (Addition and Subtraction) Up to Twenty and Money Identification	2.OA.A.1	Module 1 Part 2: Place Value, Counting, and Comparing Within 1,000 Topic E: Understand Place Value Units Lesson 22: Use counting strategies to solve add to with change unknown word problems. Module 2: Addition and Subtraction Within 200 Topic A: Simplifying Strategies for Addition Lesson 7: Solve word problems by using simplifying strategies for addition. Topic C: Simplifying Strategies for Subtraction Lesson 13: Represent and solve take from word problems. Lesson 19: Solve word problems with simplifying strategies for subtraction. Topic D: Strategies for Decomposing a Ten and a Hundred to Subtract Lesson 26: Solve add to and take from with start unknown word problems. Lesson 27: Solve two-step word problems within 100. Module 4: Addition and Subtraction Within 1,000 Topic A: Mental Place Value Strategies Lesson 3: Solve multi-step word problems and reason about equal expressions. Lesson 4: Represent and solve compare with bigger unknown word problems. Topic E: Apply Efficient Addition and Subtraction Strategies Lesson 22: Solve compare with smaller unknown word problems. Lesson 23: Solve two-step addition and subtraction word problems.	38 days

Fact Strategies (Addition and Subtraction) Up to Twenty and Money Identification (cont.)		Module 6: Multiplication and Division Foundations Topic A: Count and Problem Solve with Equal Groups Lesson 1: Compose equal groups and write repeated addition equations. Lesson 4: Represent equal groups with a tape diagram. Topic D: The Meaning of Even and Odd Numbers Lesson 17: Solve word problems that involve equal groups and arrays. Lesson 18: Use various strategies to fluently add and subtract within 100 and know all sums and differences within 20 from memory.	
	2.OA.B.2	Module 4: Addition and Subtraction Within 1,000 Topic B: Strategies for Composing Tens and Hundreds Within 1,000 Lesson 7: Use concrete models to add and relate them to written recordings. Lesson 8: Use place value drawings to represent addition and relate them to written recordings, part 1. Lesson 9: Use place value drawings to represent addition and relate them to written recordings, part 2. Lesson 10: Choose and defend efficient solution strategies for addition. Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers. Topic D: Strategies for Decomposing Tens and Hundreds Within 1,000 Lesson 16: Use concrete models to subtract and relate them to written recordings. Lesson 17: Use place value drawings to represent subtraction with one decomposition and relate them to written recordings. Lesson 18: Use place value drawings to represent subtraction with up to two decompositions and relate them to written recordings. Lesson 19: Use place value drawings to represent subtraction from numbers with 0 in the tens and/or ones place and relate to a written recording. Lesson 20: Subtract by using multiple strategies and defend an efficient strategy.	
	2.NBT.B.9	Module 4: Addition and Subtraction Within 1,000 Topic B: Strategies for Composing Tens and Hundreds Within 1,000 Lesson 5: Use the associative property to make a benchmark number to add within 1,000. Lesson 6: Use compensation to add within 1,000. Lesson 10: Choose and defend efficient solution strategies for addition. Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers.	

Fact Strategies (Addition and Subtraction) Up to Twenty and Money Identification (cont.)		Topic C: Simplifying Strategies for Subtracting Within 1,000 Lesson 12: Take from a ten or a hundred to subtract. Lesson 13: Use compensation to subtract within 1,000. Lesson 14: Use compensation to keep a constant difference by adding the same amount to both numbers. Lesson 15: Use compensation to keep a constant difference by subtracting the same amounts from both numbers.	
	2.MD.C.8	Module 5: Money, Data, Customary Measurement Topic A: Problem Solving with Coins and Bills Lesson 1: Organize, count, and represent a collection of coins. Lesson 2: Use the fewest number of coins to make a given value. Lesson 3: Solve one- and two-step word problems to find the total value of a group of coins. Lesson 4: Solve one- and two-step word problems to find the total value of a group of bills. Lesson 5: Use different strategies to make 1 dollar or to make change from 1 dollar. Lesson 6: Solve word problems by using different ways to make change from 1 dollar. Lesson 7: Solve word problems by using bills and coins. (Optional)	
Skip Counting and Place Value up to 1,000 Including Time and Money	2.NBT.A.1	Module 1: Part 2: Place Value, Counting, and Comparing Within 1,000 Topic B: Metric Measurement and Concepts About the Ruler Lesson 9: Relate 1 cm, 10 cm, 100 cm. Topic E: Understand Place Value Units Lesson 20: Count and bundle ones, tens, and hundreds to 1,000. Lesson 23: Organize, count, and record a collection of objects. Topic F: Three-Digit Numbers in Different Forms Lesson 24: Count up to 1,000 by using place value units. Lesson 25: Write three-digit numbers in unit form and show the value that each digit represents. Lesson 27: Read, write, and relate base-ten numbers in all forms. Topic G: Model Base-Ten Numbers Within 1,000 with Money Lesson 28: Use place value understanding to count and exchange \$1, \$10, and \$100 bills. Lesson 30: Determine how many \$10 bills are equal to \$1,000.	25 days

Skip Counting and Place Value up to 1,000 Including Time and Money (cont.)		Topic H: Compose and Decompose with Place Value Disks Lesson 31: Count the total value of ones, tens, and hundreds with place value disks. Lesson 32: Exchange 10 ones for 1 ten, 10 tens for 1 hundred, and 10 hundreds for 1 thousand. Lesson 33: Model numbers with more than 9 ones or 9 tens. Lesson 34: Problem solve in situations with more than 9 ones or 9 tens.	
	2.NBT.A.2	Module 1 Part 2: Place Value, Counting, and Comparing Within 1,000 Topic E: Understand Place Value Units Lesson 21: Count efficiently within 1,000 by using ones, tens, and hundreds. Lesson 22: Use counting strategies to solve add to with change unknown word problems. Lesson 23: Organize, count, and record a collection of objects. Lesson 24: Count up to 1,000 by using place value units. Topic G: Model Base-Ten Numbers Within 1,000 with Money Lesson 29: Count by \$1, \$10, and \$100. Lesson 30: Determine how many \$10 bills are equal to \$1,000. Topic I: Compare Two Three-Digit Numbers in Different Forms Lesson 37: Organize, count, represent, and compare a collection of objects. Module 3: Shapes and Time with Fraction Concepts Topic D: Applications of Fractions to Tell Time Lesson 17: Relate the clock to a number line to count by fives. Lesson 18: Tell time to the nearest 5 minutes.	
	2.NBT.A.3	Module 1 Part 2: Place Value, Counting, and Comparing Within 1,000 Topic E: Understand Place Value Units Lesson 23: Organize, count, and record a collection of objects. Topic F: Three-Digit Numbers in Different Forms Lesson 26: Write base-ten numbers in expanded form. Lesson 27: Read, write, and relate base-ten numbers in all forms. Topic H: Compose and Decompose with Place Value Disks Lesson 31: Count the total value of ones, tens, and hundreds with place value disks. Topic I: Compare Two Three-Digit Numbers in Different Forms Lesson 38: Compare numbers in different forms. (Optional)	

Skip Counting and Place Value up to 1,000 Including Time and Money (cont.)	2.NBT.A.4	Module 1 Part 2: Place Value, Counting, and Comparing Within 1,000 Topic I: Compare Two Three-Digit Numbers in Different Forms Lesson 35: Compare three-digit numbers by using $>$, $=$, and $<$. Lesson 36: Apply place value understanding to compare by using $>$, $=$, and $<$. Lesson 37: Organize, count, represent, and compare a collection of objects. Lesson 38: Compare numbers in different forms. (Optional)	
	2.MD.C.7	Module 3: Shapes and Time with Fraction Concepts Topic D: Application of Fractions to Tell Time Lesson 14: Distinguish between a.m. and p.m. Lesson 15: Recognize time as measurement units. Lesson 16: Use a clock to tell time to the half hour or quarter hour. Lesson 17: Relate the clock to a number line to count by fives. Lesson 18: Tell time to the nearest 5 minutes. Lesson 19: Solve elapsed time problems. (Optional)	
	2.MD.C.8	Module 5: Money, Data, Customary Measurement Topic A: Problem Solving with Coins and Bills Lesson 1: Organize, count, and represent a collection of coins. Lesson 2: Use the fewest number of coins to make a given value. Lesson 3: Solve one- and two-step word problems to find the total value of a group of coins. Lesson 4: Solve one- and two-step word problems to find the total value of a group of bills. Lesson 5: Use different strategies to make 1 dollar or to make change from 1 dollar. Lesson 6: Solve word problems by using different ways to make change from 1 dollar. Lesson 7: Solve word problems by using bills and coins. (Optional)	
Fluency with Addition and Subtraction within 100 and Problem Solving with Money	2.OA.A.1	Module 1 Part 2: Place Value, Counting, and Comparing Within 1,000 Topic E: Understand Place Value Units Lesson 22: Use counting strategies to solve add to with change unknown word problems. Module 2: Addition and Subtraction Within 200 Topic A: Simplifying Strategies for Addition Lesson 7: Solve word problems by using simplifying strategies for addition.	1 day

Fluency with Addition and Subtraction within 100 and Problem Solving with Money (cont.)		Topic C: Simplifying Strategies for Subtraction Lesson 13: Represent and solve take from word problems. Lesson 19: Solve word problems with simplifying strategies for subtraction. Topic D: Strategies for Decomposing a Ten and a Hundred to Subtract Lesson 26: Solve add to and take from with start unknown word problems. Lesson 27: Solve two-step word problems within 100. Module 4: Addition and Subtraction Within 1,000 Topic A: Mental Place Value Strategies Lesson 3: Solve multi-step word problems and reason about equal expressions. Lesson 4: Represent and solve compare with bigger unknown word problems. Topic E: Apply Efficient Addition and Subtraction Strategies Lesson 22: Solve compare with smaller unknown word problems. Lesson 23: Solve two-step addition and subtraction word problems. Module 6: Multiplication and Division Foundations Topic A: Count and Problem Solve with Equal Groups Lesson 1: Compose equal groups and write repeated addition equations. Lesson 4: Represent equal groups with a tape diagram. Topic D: The Meaning of Even and Odd Numbers Lesson 17: Solve word problems that involve equal groups and arrays. Lesson 18: Use various strategies to fluently add and subtract within 100 and know all sums and differences within 20 from memory.	
	2.OA.B.2	Module 4: Addition and Subtraction Within 1,000 Topic B: Strategies for Composing Tens and Hundreds Within 1,000 Lesson 7: Use concrete models to add and relate them to written recordings. Lesson 8: Use place value drawings to represent addition and relate them to written recordings, part 1. Lesson 9: Use place value drawings to represent addition and relate them to written recordings, part 2 Lesson 10: Choose and defend efficient solution strategies for addition. Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers.	

Fluency with Addition and Subtraction within 100 and Problem Solving with Money (cont.)		Topic D: Strategies for Decomposing Tens and Hundreds Within 1,000 Lesson 16: Use concrete models to subtract and relate them to written recordings. Lesson 17: Use place value drawings to represent subtraction with one decomposition and relate them to written recordings. Lesson 18: Use place value drawings to represent subtraction with up to two decompositions and relate them to written recordings. Lesson 19: Use place value drawings to represent subtraction from numbers with 0 in the tens and/or ones place and relate to a written recording. Lesson 20: Subtract by using multiple strategies and defend an efficient strategy.	
	2.NBT.A.1	Module 1: Part 2: Place Value, Counting, and Comparing Within 1,000 Topic B: Metric Measurement and Concepts About the Ruler Lesson 9: Relate 1 cm, 10 cm, 100 cm Topic E: Understand Place Value Units Lesson 20: Count and bundle ones, tens, and hundreds to 1,000. Lesson 23: Organize, count, and record a collection of objects. Topic F: Three-Digit Numbers in Different Forms Lesson 24: Count up to 1,000 by using place value units. Lesson 25: Write three-digit numbers in unit form and show the value that each digit represents. Lesson 27: Read, write, and relate base-ten numbers in all forms. Topic G: Model Base-Ten Numbers Within 1,000 with Money Lesson 28: Use place value understanding to count and exchange \$1, \$10, and \$100 bills. Lesson 30: Determine how many \$10 bills are equal to \$1,000. Topic H: Compose and Decompose with Place Value Disks Lesson 31: Count the total value of ones, tens, and hundreds with place value disks. Lesson 32: Exchange 10 ones for 1 ten, 10 tens for 1 hundred, and 10 hundreds for 1 thousand. Lesson 33: Model numbers with more than 9 ones or 9 tens. Lesson 34: Problem solve in situations with more than 9 ones or 9 tens.	

Fluency with Addition and Subtraction within 100 and Problem Solving with Money (cont.)	2.NBT.B.5	Module 4: Addition and Subtraction Within 1,000 Topic A: Mental Place Value Strategies Lesson 4: Represent and solve compare with bigger unknown word problems. Topic B: Strategies for Composing Tens and Hundreds Within 1,000 Lesson 5: Use the associative property to make a benchmark number to add within 1,000. Lesson 6: Use compensation to add within 1,000. Lesson 10: Choose and defend efficient solution strategies for addition. Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers. Topic C: Simplifying Strategies for Subtracting Within 1,000 Lesson 12: Take from a ten or a hundred to subtract. Lesson 13: Use compensation to subtract within 1,000. Topic D: Strategies for Decomposing Tens and Hundreds Within 1,000 Lesson 20: Subtract by using multiple strategies and defend an efficient strategy. Topic E: Apply Efficient Addition and Subtraction Strategies Lesson 22: Solve compare with smaller unknown word problems. Lesson 23: Solve two-step addition and subtraction word problems.	
	2.NBT.B.6	Module 2: Addition and Subtraction Within 200 Topic A: Simplifying Strategies for Addition Lesson 1: Reason about addition with four addends. Module 4: Addition and Subtraction Within 1,000 Topic C: Simplifying Strategies for Subtracting Within 1,000 Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers.	
	2.NBT.B.9	Module 4: Addition and Subtraction Within 1,000 Topic B: Strategies for Composing Tens and Hundreds Within 1,000 Lesson 5: Use the associative property to make a benchmark number to add within 1,000. Lesson 6: Use compensation to add within 1,000. Lesson 10: Choose and defend efficient solution strategies for addition. Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers.	

Fluency with Addition and Subtraction within 100 and Problem Solving with Money (cont.)		Topic C: Simplifying Strategies for Subtracting Within 1,000 Lesson 12: Take from a ten or a hundred to subtract. Lesson 13: Use compensation to subtract within 1,000. Lesson 14: Use compensation to keep a constant difference by adding the same amount to both numbers. Lesson 15: Use compensation to keep a constant difference by subtracting the same amounts from both numbers.	
	2.MD.C.8	Module 5: Money, Data, Customary Measurement Topic A: Problem Solving with Coins and Bills Lesson 1: Organize, count, and represent a collection of coins. Lesson 2: Use the fewest number of coins to make a given value. Lesson 3: Solve one- and two-step word problems to find the total value of a group of coins. Lesson 4: Solve one- and two-step word problems to find the total value of a group of bills. Lesson 5: Use different strategies to make 1 dollar or to make change from 1 dollar. Lesson 6: Solve word problems by using different ways to make change from 1 dollar. Lesson 7: Solve word problems by using bills and coins. (Optional)	
Exploring Addition and Subtraction within 1000	2.OA.B.2	Module 4: Addition and Subtraction Within 1,000 Topic B: Strategies for Composing Tens and Hundreds Within 1,000 Lesson 7: Use concrete models to add and relate them to written recordings. Lesson 8: Use place value drawings to represent addition and relate them to written recordings, part 1. Lesson 9: Use place value drawings to represent addition and relate them to written recordings, part 2 Lesson 10: Choose and defend efficient solution strategies for addition. Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers. Topic D: Strategies for Decomposing Tens and Hundreds Within 1,000 Lesson 16: Use concrete models to subtract and relate them to written recordings. Lesson 17: Use place value drawings to represent subtraction with one decomposition and relate them to written recordings.	24 days

Exploring Addition and Subtraction within 1000 (cont.)		Lesson 18: Use place value drawings to represent subtraction with up to two decompositions and relate them to written recordings. Lesson 19: Use place value drawings to represent subtraction from numbers with 0 in the tens and/or ones place and relate to a written recording. Lesson 20: Subtract by using multiple strategies and defend an efficient strategy.	
	2.NBT.A.1	Module 1: Part 2: Place Value, Counting, and Comparing Within 1,000 Topic B: Metric Measurement and Concepts About the Ruler Lesson 9: Relate 1 cm, 10 cm, 100 cm Topic E: Understand Place Value Units Lesson 20: Count and bundle ones, tens, and hundreds to 1,000. Lesson 23: Organize, count, and record a collection of objects. Topic F: Three-Digit Numbers in Different Forms Lesson 24: Count up to 1,000 by using place value units. Lesson 25: Write three-digit numbers in unit form and show the value that each digit represents. Lesson 27: Read, write, and relate base-ten numbers in all forms. Topic G: Model Base-Ten Numbers Within 1,000 with Money Lesson 28: Use place value understanding to count and exchange \$1, \$10, and \$100 bills. Lesson 30: Determine how many \$10 bills are equal to \$1,000. Topic H: Compose and Decompose with Place Value Disks Lesson 31: Count the total value of ones, tens, and hundreds with place value disks. Lesson 32: Exchange 10 ones for 1 ten, 10 tens for 1 hundred, and 10 hundreds for 1 thousand. Lesson 33: Model numbers with more than 9 ones or 9 tens. Lesson 34: Problem solve in situations with more than 9 ones or 9 tens.	
	2.NBT.B.5	Module 4: Addition and Subtraction Within 1,000 Topic A: Mental Place Value Strategies Lesson 4: Represent and solve compare with bigger unknown word problems. Topic B: Strategies for Composing Tens and Hundreds Within 1,000 Lesson 5: Use the associative property to make a benchmark number to add within 1,000.	

Exploring Addition and Subtraction within 1000 (cont.)		Lesson 6: Use compensation to add within 1,000. Lesson 10: Choose and defend efficient solution strategies for addition. Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers. Topic C: Simplifying Strategies for Subtracting Within 1,000 Lesson 12: Take from a ten or a hundred to subtract. Lesson 13: Use compensation to subtract within 1,000. Topic D: Strategies for Decomposing Tens and Hundreds Within 1,000 Lesson 20: Subtract by using multiple strategies and defend an efficient strategy. Topic E: Apply Efficient Addition and Subtraction Strategies Lesson 22: Solve <i>compare with smaller unknown</i> word problems. Lesson 23: Solve two-step addition and subtraction word problems.	
	2.NBT.B.7	Module 2: Addition and Subtraction Within 200 Topic A: Simplifying Strategies for Addition Lesson 2: Break apart and add like units. Lesson 3: Use compensation to add within 100. Lesson 4: Use compensation to add within 200. Lesson 5: Make a ten to add within 100. Lesson 6: Make a ten to add within 200. Lesson 7: Solve word problems by using simplifying strategies for addition. Topic B: Strategies for Composing a Ten and a Hundred to Add Lesson 8: Use concrete models to compose a ten. Lesson 9: Use place value drawings to compose a ten and relate to written recordings. Lesson 10: Use concrete models to compose a hundred. Lesson 11: Use math drawings to compose a hundred and relate to written recordings. Lesson 12: Use place value drawings to compose a ten and a hundred with two- and three-digit addends. Relate to written recordings. Topic C: Simplifying Strategies for Subtraction Lesson 14: Use addition and subtraction strategies to find an unknown part. Lesson 15: Use compensation to subtract within 100. Lesson 16: Use compensation to subtract within 200. Lesson 17: Take from a ten to subtract within 200.	

Exploring Addition and Subtraction within 1000 (cont.)		Lesson 18: Take from a hundred to subtract within 200. Lesson 19: Solve word problems with simplifying strategies for subtraction. Topic D: Strategies for Decomposing a Ten and a Hundred to Subtract Lesson 20: Reason about when to unbundle a ten to subtract. Lesson 21: Use concrete models to decompose a ten with two-digit totals. Lesson 22: Use place value drawings to decompose a ten and relate them to written recordings. Lesson 23: Use concrete models and drawings to decompose a hundred. Lesson 24: Use place value drawings to decompose a hundred and relate them to written recordings. Lesson 25: Use place value drawings to subtract with two decompositions. Module 4: Addition and Subtraction Within 1,000 Topic B: Strategies for Composing Tens and Hundreds Within 1,000 Lesson 5: Use the associative property to make a benchmark number to add within 1,000. Lesson 6: Use compensation to add within 1,000. Lesson 7: Use concrete models to add and relate them to written recordings. Lesson 8: Use place value drawings to represent addition and relate them to written recordings, part 1. Lesson 9: Use place value drawings to represent addition and relate them to written recordings, part 2. Lesson 10: Choose and defend efficient solution strategies for addition. Topic C: Simplifying Strategies for Subtracting Within 1,000 Lesson 12: Take from a ten or a hundred to subtract. Lesson 13: Use compensation to subtract within 1,000. Lesson 14: Use compensation to keep a constant difference by adding the same amount to both numbers. Lesson 15: Use compensation to keep a constant difference by subtracting the same amounts from both numbers. Lesson 16: Use concrete models to subtract and relate them to written recordings. Lesson 17: Use place value drawings to represent subtraction with one decomposition and relate them to written recordings.	
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Exploring Addition and Subtraction within 1000 (cont.)		Lesson 18: Use place value drawings to represent subtraction with up to two decompositions and relate them to written recordings. Lesson 19: Use place value drawings to represent subtraction from numbers with 0 in the tens and/or ones place and relate to a written recording. Lesson 20: Subtract by using multiple strategies and defend an efficient strategy. Topic E: Apply Efficient Addition and Subtraction Strategies Lesson 21: Apply strategies to find sums and differences and relate addition to subtraction. Lesson 24: Organize, count, and represent a collection of objects.	
	2.NBT.B.8	Module 4: Addition and Subtraction Within 1,000 Topic A: Mental Place Value Strategies Lesson 1: Organize, count, and represent a collection of objects. Lesson 2: Mentally add and subtract multiples of 10 and 100 with unknowns in various positions. Lesson 3: Solve multi-step word problems and reason about equal expressions.	
	2.NBT.B.9	Module 4: Addition and Subtraction Within 1,000 Topic B: Strategies for Composing Tens and Hundreds Within 1,000 Lesson 5: Use the associative property to make a benchmark number to add within 1,000. Lesson 6: Use compensation to add within 1,000. Lesson 10: Choose and defend efficient solution strategies for addition. Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers. Topic C: Simplifying Strategies for Subtracting Within 1,000 Lesson 12: Take from a ten or a hundred to subtract. Lesson 13: Use compensation to subtract within 1,000. Lesson 14: Use compensation to keep a constant difference by adding the same amount to both numbers. Lesson 15: Use compensation to keep a constant difference by subtracting the same amounts from both numbers.	

Linear Measurement & Analyzing and Interpreting Data	2.OA.A.1	Module 1 Part 2: Place Value, Counting, and Comparing Within 1,000 Topic E: Understand Place Value Units Lesson 22: Use counting strategies to solve add to with change unknown word problems. Module 2: Addition and Subtraction Within 200 Topic A: Simplifying Strategies for Addition Lesson 7: Solve word problems by using simplifying strategies for addition. Topic C: Simplifying Strategies for Subtraction Lesson 13: Represent and solve take from word problems. Lesson 19: Solve word problems with simplifying strategies for subtraction. Topic D: Strategies for Decomposing a Ten and a Hundred to Subtract Lesson 26: Solve <i>add to</i> and <i>take from with start unknown</i> word problems. Lesson 27: Solve two-step word problems within 100. Module 4: Addition and Subtraction Within 1,000 Topic A: Mental Place Value Strategies Lesson 3: Solve multi-step word problems and reason about equal expressions. Lesson 4: Represent and solve <i>compare with bigger unknown</i> word problems. Topic E: Apply Efficient Addition and Subtraction Strategies Lesson 22: Solve <i>compare with smaller unknown</i> word problems. Lesson 23: Solve two-step addition and subtraction word problems. Module 6: Multiplication and Division Foundations Topic A: Count and Problem Solve with Equal Groups Lesson 1: Compose equal groups and write repeated addition equations. Lesson 4: Represent equal groups with a tape diagram. Topic D: The Meaning of Even and Odd Numbers Lesson 17: Solve word problems that involve equal groups and arrays. Lesson 18: Use various strategies to fluently add and subtract within 100 and know all sums and differences within 20 from memory.	27 days
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Linear Measurement & Analyzing and Interpreting Data (cont.)	2.MD.A.1	Module 1 Part 1: Place Value Concepts Through Metric Measurement and Data Topic B: Metric Measurement and Concepts About the Ruler Lesson 5: Connect measurement to physical units by iterating a centimeter cube. Lesson 6: Make a 10 cm ruler and measure objects. Lesson 7: Measure lengths and relate 10 cm and 1 cm. Lesson 8: Make a meter stick and measure with various tools. Topic C: Estimate, Measure, and Compare Lengths Lesson 13: estimate and measure height to model metric relationships. Module 5: Money, Data, and Customary Measurement Topic B: Use Customary Units to Measure and Estimate Length Lesson 8: Iterate an inch tile to create a unit ruler and measure to the nearest inch. Lesson 9: Use an inch ruler and a yard stick to estimate and measure the length of various objects.	
	2.MD.A.2	Module 1 Part 1: Place Value Concepts Through Metric Measurement and Data Topic B: Metric Measurement and Concepts About the Ruler Lesson 10: Reason about the relationship between the size of the unit and the number of units needed to measure. Module 5: Money, Data, and Customary Measurement Topic B: Use Customary Units to Measure and Estimate Length Lesson 10: Measure an object twice by using different length units and compare and relate measurement to unit size.	
	2.MD.A.3	Module 1 Part 1: Place Value Concepts Through Metric Measurement and Data Topic C: Estimate, Measure, and Compare Lengths Lesson 11: Estimate and compare lengths. Lesson 13: Estimate and measure height to model metric relationships. Module 5: Money, Data, and Customary Measurement Topic B: Use Customary Units to Measure and Estimate Length Lesson 9: Use an inch ruler and a yard stick to estimate and measure the length of various objects.	

Linear Measurement & Analyzing and Interpreting Data (cont.)	2.MD.A.4	Module 1 Part 1: Place Value Concepts Through Metric Measurement and Data Topic C: Estimate, Measure, and Compare Lengths Lesson 11: Estimate and compare lengths. Lesson 12: Model and reason about the difference in length. Lesson 14: Represent and compare students' heights. Module 5: Money, Data, and Customary Measurement Topic B: Use Customary Units to Measure and Estimate Length Lesson 11: Measure to compare differences in lengths.	
	2.MD.B.5	Module 1 Part 1: Place Value Concepts Through Metric Measurement and Data Topic D: Solve Compare Problems by Using the Ruler as a Number Line Lesson 17: Represent and solve comparison problems by using measurement contexts. Lesson 18: Solve <i>compare with difference unknown</i> word problems by using measurement contexts. Lesson 19: Solve <i>compare with difference unknown</i> word problems in various contexts. Module 5: Money, Data, and Customary Measurement Topic C: Use Measurement and Data to Solve Problems Lesson 13: Solve word problems that involve measurements and reason about estimates. Lesson 14: Solve addition and subtraction two-step word problems that involve length.	
	2.MD.B.6	Module 1 Part 1: Place Value Concepts Through Metric Measurement and Data Topic D: Solve Compare Problems by Using the Ruler as a Number Line Lesson 15: Use a measuring tape as a number line to add efficiently. Lesson 16: Use a measuring tape as a number line to subtract efficiently. Lesson 17: Represent and solve comparison problems by using measurement contexts. Lesson 18: Solve <i>compare with difference unknown</i> word problems by using measurement contexts. Lesson 19: Solve <i>compare with difference unknown</i> word problems in various contexts.	

Linear Measurement & Analyzing and Interpreting Data (cont.)		Module 5: Money, Data, and Customary Measurement Topic B: Use Customary Units to Measure and Estimate Length Lesson 12: Identify unknown numbers on a number line by using the interval as a reference point.	
	2.MD.D.9	Module 5: Money, Data, and Customary Measurement Topic C: Use Measurement and Data to Solve Problems Lesson 15: Use measurement data to create a line plot. Lesson 16: Create a line plot to represent data and ask and answer questions.	
	2.MD.D.10	Module 1 Part 1: Place Value Concepts Through Metric Measurement and Data Topic A: Represent Data to Solve Problems Lesson 1: Draw and label a picture graph to represent data. Lesson 2: Draw and label a bar graph to represent data. Lesson 3: Use information presented in a bar graph to solve <i>put together</i> and <i>take apart</i> problems. Lesson 4: Use information presented in a bar graph to solve <i>compare</i> problems.	
Exploring Multiplication	2.NBT.A.2	Module 1 Part 2: Place Value, Counting, and Comparing Within 1,000 Topic E: Understand Place Value Units Lesson 21: Count efficiently within 1,000 by using ones, tens, and hundreds. Lesson 22: Use counting strategies to solve <i>add to with change unknown</i> word problems. Lesson 23: Organize, count, and record a collection of objects. Lesson 24: Count up to 1,000 by using place value units. Topic G: Model Base-Ten Numbers Within 1,000 with Money Lesson 29: Count by \$1, \$10, and \$100. Lesson 30: Determine how many \$10 bills are equal to \$1,000. Topic I: Compare Two Three-Digit Numbers in Different Forms Lesson 37: Organize, count, represent, and compare a collection of objects. Module 3: Shapes and Time with Fraction Concepts Topic D: Applications of Fractions to Tell Time Lesson 17: Relate the clock to a number line to count by fives. Lesson 18: Tell time to the nearest 5 minutes.	

Exploring Multiplication (cont.)	2.OA.C.3	Module 6: Multiplication and Division Foundations Topic B: Arrays and Equal Groups Lesson 5: Compose arrays with rows and columns and use a repeated count to find the total. Lesson 6: Decompose arrays into rows and columns and relate them to repeated addition. Lesson 7: Distinguish between rows and columns and use math drawings to represent arrays. Lesson 8: Use square tiles to create arrays with gaps. Topic C: Rectangular Arrays as a Foundation for Multiplication and Division Lesson 9: Determine the attributes of a square array. Lesson 10: Use math drawings to compose a rectangle. Lesson 11: Decompose an array to find the total efficiently. Lesson 12: Reason about how equal arrays can be composed differently. Lesson 13: Decompose an array and relate it to a number bond. Topic D: The Meaning of Even and Odd Numbers Lesson 14: Relate doubles to even numbers and write equations to express the sums. Lesson 15: Pair objects and skip-count to determine whether a number is even or odd. Lesson 16: Use rectangular arrays to investigate combinations of even and odd numbers. Lesson 17: Solve word problems that involve equal groups and arrays.	
	2.OA.C.4	Module 6: Multiplication and Division Foundations Topic A: Count and Problem Solve with Equal Groups Lesson 1: Compose equal groups and write repeated addition equations. Lesson 2: Organize, count, and represent a collection of objects. Lesson 3: Use math drawings to represent equal groups and relate them to repeated addition. Lesson 4: Represent equal groups with a tape diagram. Topic B: Arrays and Equal Groups Lesson 5: Compose arrays with rows and columns and use a repeated count to find the total. Lesson 6: Decompose arrays into rows and columns and relate them to repeated addition.	

Exploring Multiplication (cont.)		Lesson 7: Distinguish between rows and columns and use math drawings to represent arrays. Lesson 8: Use square tiles to create arrays with gaps. Topic C: Rectangular Arrays as a Foundation for Multiplication and Division Lesson 9: Determine the attributes of a square array. Lesson 10: Use math drawings to compose a rectangle. Lesson 11: Decompose an array to find the total efficiently. Lesson 12: Reason about how equal arrays can be composed differently. Lesson 13: Decompose an array and relate it to a number bond. Topic D: The Meaning of Even and Odd Numbers Lesson 17: Solve word problems that involve equal groups and arrays.	
	2.G.A.2	Module 6: Multiplication and Division Foundations Topic C: Rectangular Arrays as a Foundation for Multiplication and Division Lesson 11: Decompose an array to find the total efficiently. Lesson 12: Reason about how equal arrays can be composed differently. Lesson 13: Decompose an array and relate it to a number bond.	
Reasoning with Shapes	2.G.A.1	Module 3: Shapes and Time with Fraction Concepts Topic A: Attributes of Geometric Shapes Lesson 1: Determine the defining attributes of a polygon. Lesson 2: Use attributes to identify, build, and describe two-dimensional shapes. Lesson 3: Identify, build, and describe right angles and parallel lines. Lesson 4: Use attributes to identify, classify, and compose different quadrilaterals. Lesson 5: Relate the square to the cube and use attributes to describe a cube. Topic B: Composite Shapes and Fraction Concepts Lesson 6: Recognize that a whole polygon can be decomposed into smaller parts and the parts can be composed to make a whole. Lesson 7: Combine shapes to create a composite shape and create a new shape from composite shapes.	13 days

Reasoning with Shapes (cont).	2.G.A.3	Module 3: Shapes and Time with Fraction Concepts Topic B: Composite Shapes and Fraction Concepts Lesson 8: Create composite shapes by using equal parts and name them as halves, thirds, and fourths. Lesson 9: Interpret equal shares in composite shapes as halves, thirds, and fourths. Topic C: Halves, Thirds, and Fourths of Circles and Rectangles Lesson 10: Partition circles and rectangles into equal parts and describe those parts as halves. Lesson 11: Partition circles and rectangles into equal parts, and describe those parts as halves, thirds, and fourths. Lesson 12: Describe a whole by the number of equal parts in halves, thirds, and fourths. Lesson 13: Recognize that equal parts of an identical rectangle can be different shapes.	
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Eureka Math² Scope and Sequence: Year at a Glance

Level 2: Units of Ten

If a district uses this resource to implement the state model curriculum for grade 2, the following scope and sequence should be followed to ensure alignment and attention to the progressions of mathematics.

Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Place Value Concepts Through Metric Measurement and Data Place Value, Counting, and Comparing Within 1,000	Addition and Subtraction Within 200	Shapes and Time with Fraction Concepts	Addition and Subtraction Within 1,000	Money, Data, and Customary Measurement	Multiplication and Division Foundations
Topic A: Represent Data to Solve Problems Lesson 1: Draw and label a picture graph to represent data. 2.MD.D.10, MP6, 2.Mod1.AD8 Lesson 2: Draw and label a bar graph to represent data. 2.MD.D.10, MP8, 2.Mod1.AD8 Lesson 3: Use information presented in a bar graph to solve <i>put together</i> and <i>take apart</i> problems. 2.MD.D.10, MP2, 2.Mod1.AD8, 2.Mod1.AD9 Lesson 4: Use information presented in a bar graph to solve <i>compare</i> problems. 2.MD.D.10, MP7, 2.Mod1.AD8, 2.Mod1.AD9	Topic A: Simplifying Strategies for Addition Lesson 1: Reason about addition with four addends. 2.NBT.B.6, MP3, 2.Mod2.AD2 Lesson 2: Break apart and add like units. 2.NBT.B.7, MP7, 2.Mod2.AD3 Lesson 3: Use compensation to add within 100. 2.NBT.B.7, MP2, 2.Mod2.AD3 Lesson 4: Use compensation to add within 200. 2.NBT.B.7, MP5, 2.Mod2.AD3 Lesson 5: Make a ten to add within 100. 2.NBT.B.7, MP8, 2.Mod2.AD3	Topic A: Attributes of Geometric Shapes Lesson 1: Determine the defining attributes of a polygon. 2.G.A.1, MP6, 2.Mod3.AD4 Lesson 2: Use attributes to identify, build, and describe two-dimensional shapes. 2.G.A.1, MP7, 2.Mod3.AD4, 2.Mod3.AD5 Lesson 3: Identify, build, and describe right angles and parallel lines. 2.G.A.1, MP6, 2.Mod3.AD4, 2.Mod3.AD5 Lesson 4: Use attributes to identify, classify, and compose different quadrilaterals. 2.G.A.1, MP3, 2.Mod3.AD4, 2.Mod3.AD5	Topic A: Mental Place Value Strategies Lesson 1: Organize, count, and represent a collection of objects. 2.NBT.B.8, MP3, 2.Mod4.AD8, 2.Mod4.AD9 Lesson 2: Mentally add and subtract multiples of 10 and 100 with unknowns in various positions. 2.NBT.B.8, MP7, 2.Mod4.AD8, 2.Mod4.AD9 Lesson 3: Solve multi-step word problems and reason about equal expressions. 2.OA.A.1, 2.NBT.B.8, MP2, 2.Mod4.AD1, 2.Mod4.AD8, 2.Mod4.AD9 Lesson 4: Represent and solve compare with bigger unknown word problems. 2.OA.A.1, 2.NBT.B.5, MP5, 2.Mod4.AD1, 2.Mod4.AD4	Topic A: Problem Solving with Coins and Bills Lesson 1: Organize, count, and represent a collection of coins. 2.MD.C.8, MP7, 2.Mod5.AD6 Lesson 2: Use the fewest number of coins to make a given value. 2.MD.C.8, MP6, 2.Mod5.AD6 Lesson 3: Solve one- and two-step word problems to find the total value of a group of coins. 2.MD.C.8, MP4, 2.Mod5.AD6 Lesson 4: Solve one- and two-step word problems to find the total value of a group of bills. 2.MD.C.8, MP2, 2.Mod5.AD6 Lesson 5: Use different strategies to make 1 dollar or to make change from 1 dollar. 2.MD.C.8, MP3, 2.Mod5.AD6	Topic A: Count and Problem Solve with Equal Groups Lesson 1: Compose equal groups and write repeated addition equations. 2.OA.A.1, 2.OA.C.4, MP2, 2.Mod6.AD1, 2.Mod6.AD4 Lesson 2: Organize, count, and represent a collection of objects. 2.OA.C.4, MP7, 2.Mod6.AD4 Lesson 3: Use math drawings to represent equal groups and relate them to repeated addition. 2.OA.C.4, MP8, 2.Mod6.AD4 Lesson 4: Represent equal groups with a tape diagram. 2.OA.A.1, 2.OA.C.4, MP4, 2.Mod6.AD1, 2.Mod6.AD4

Topic B: Metric Measurement and Concepts About the Ruler Lesson 5: Connect measurement to physical units by iterating a centimeter cube. 2.MD.A.1, MP6, 2.Mod1.AD1 Lesson 6: Make a 10 cm ruler and measure objects. 2.MD.A.1, MP2, 2.Mod1.AD1 Lesson 7: Measure lengths and relate 10 cm and 1 cm. 2.MD.A.1, MP7, 2.Mod1.AD1 Lesson 8: Make a meter stick and measure with various tools. 2.MD.A.1, MP5, 2.Mod1.AD1 Lesson 9: Relate 1 cm, 10 cm, and 100 cm. 2.NBT.A.1, MP3 Lesson 10: Reason about the relationship between the size of the unit and the number of units needed to measure. 2.MD.A.2, MP8 Topic C: Estimate, Measure, and Compare Lengths Lesson 11: Estimate and compare lengths. 2.MD.A.3, 2.MD.A.4, MP3, 2.Mod1.AD2, 2.Mod1.AD3 Lesson 12: Model and reason about the difference in length. 2.MD.A.4, MP4, 2.Mod1.AD3	Lesson 6: Make a ten to add within 200. 2.NBT.B.7, MP7, 2.Mod2.AD3 Lesson 7: Solve word problems by using simplifying strategies for addition. 2.OA.A.1, 2.NBT.B.7, MP5, 2.Mod2.AD1, 2.Mod2.AD3 Topic B: Strategies for Composing a Ten and a Hundred to Add Lesson 8: Use concrete models to compose a ten. 2.NBT.B.7, MP8, 2.Mod2.AD3, 2.Mod2.AD5 Lesson 9: Use place value drawings to compose a ten and relate to written recordings. 2.NBT.B.7, MP6, 2.Mod2.AD3, 2.Mod2.AD5 Lesson 10: Use concrete models to compose a hundred. 2.NBT.B.7, MP4, 2.Mod2.AD3, 2.Mod2.AD5 Lesson 11: Use math drawings to compose a hundred and relate to written recordings. 2.NBT.B.7, MP6, 2.Mod2.AD3, 2.Mod2.AD5 Lesson 12: Use place value drawings to compose a ten and a hundred with two- and three-digit addends. Relate to written recordings. 2.NBT.B.7, MP3, 2.Mod2.AD3, 2.Mod2.AD5	Lesson 5: Relate the square to the cube and use attributes to describe a cube. 2.G.A.1, MP7, 2.Mod3.AD4, 2.Mod3.AD5 Topic B: Composite Shapes and Fraction Concepts Lesson 6: Recognize that a whole polygon can be decomposed into smaller parts and the parts can be composed to make a whole. 2.G.A.1, MP7, 2.Mod3.AD4, 2.Mod3.AD5 Lesson 7: Combine shapes to create a composite shape and create a new shape from composite shapes. 2.G.A.1, MP3, 2.Mod3.AD4, 2.Mod3.AD5 Lesson 8: Create composite shapes by using equal parts and name them as halves, thirds, and fourths. 2.G.A.3, MP5, 2.Mod3.AD6 Lesson 9: Interpret equal shares in composite shapes as halves, thirds, and fourths. 2.G.A.3, MP3, 2.Mod3.AD6 Topic C: Halves, Thirds, and Fourths of Circles and Rectangles Lesson 10: Partition circles and rectangles into equal parts and describe those parts as halves. 2.G.A.3, MP7, 2.Mod3.AD6	Topic B: Strategies for Composing Tens and Hundreds Within 1,000 Lesson 5: Use the associative property to make a benchmark number to add within 1,000. 2.NBT.B.5, 2.NBT.B.7, 2.NBT.B.9, MP3, 2.Mod4.AD4, 2.Mod4.AD6, 2.Mod4.AD10 Lesson 6: Use compensation to add within 1,000. 2.NBT.B.5, 2.NBT.B.7, 2.NBT.B.9, MP1, 2.Mod4.AD4, 2.Mod4.AD6, 2.Mod4.AD10 Lesson 7: Use concrete models to add and relate them to written recordings. 2.OA.B.2, 2.NBT.B.7, MP6, 2.Mod4.AD2, 2.Mod4.AD6 Lesson 8: Use place value drawings to represent addition and relate them to written recordings, part 1. 2.OA.B.2, 2.NBT.B.7, MP7, 2.Mod4.AD2, 2.Mod4.AD6 Lesson 9: Use place value drawings to represent addition and relate them to written recordings, part 2. 2.OA.B.2, 2.NBT.B.7, MP6, 2.Mod4.AD2, 2.Mod4.AD6 Lesson 10: Choose and defend efficient solution strategies for addition. 2.OA.B.2, 2.NBT.B.5, 2.NBT.B.7, 2.NBT.B.9, MP8, 2.Mod4.AD2, 2.Mod4.AD4, 2.Mod4.AD6, 2.Mod4.AD10	Lesson 6: Solve word problems by using different ways to make change from 1 dollar. 2.MD.C.8, MP3, 2.Mod5.AD6 Lesson 7: Solve word problems by using bills and coins. (Optional) 2.MD.C.8, MP1, 2.Mod5.AD6 Topic B: Use Customary Units to Measure and Estimate Length Lesson 8: Iterate an inch tile to create a unit ruler and measure to the nearest inch. 2.MD.A.1, MP6, 2.Mod5.AD1 Lesson 9: Use an inch ruler and a yard stick to estimate and measure the length of various objects. 2.MD.A.1, 2.MD.A.3, MP5, 2.Mod5.AD1, 2.Mod5.AD3 Lesson 10: Measure an object twice by using different length units, and compare and relate measurement to unit size. 2.MD.A.2, MP6, 2.Mod5.AD2 Lesson 11: Measure to compare differences in lengths. 2.MD.A.4, MP5, 2.Mod5.AD4 Lesson 12: Identify unknown numbers on a number line by using the interval as a reference point. 2.MD.B.6, MP7, 2.Mod1.AD5	Topic B: Arrays and Equal Groups Lesson 5: Compose arrays with rows and columns and use a repeated count to find the total. 2.OA.C.3, 2.OA.C.4, MP8, 2.Mod6.AD3, 2.Mod6.AD4 Lesson 6: Decompose arrays into rows and columns and relate them to repeated addition. 2.OA.C.3, 2.OA.C.4, MP7, 2.Mod6.AD3, 2.Mod6.AD4 Lesson 7: Distinguish between rows and columns and use math drawings to represent arrays. 2.OA.C.3, 2.OA.C.4, MP7, 2.Mod6.AD3, 2.Mod6.AD4 Lesson 8: Use square tiles to create arrays with gaps. 2.OA.C.3, 2.OA.C.4, MP7, 2.Mod6.AD3, 2.Mod6.AD4 Topic C: Rectangular Arrays as a Foundation for Multiplication and Division Lesson 9: Determine the attributes of a square array. 2.OA.C.3, 2.OA.C.4, MP8, 2.Mod6.AD3 Lesson 10: Use math drawings to compose a rectangle. 2.OA.C.3, 2.OA.C.4, MP7, 2.Mod6.AD3 Lesson 11: Decompose an array to find the total efficiently. 2.OA.C.3, 2.OA.C.4, 2.G.A.2, MP7, 2.Mod6.AD3, 2.Mod6.AD5
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Lesson 13: Estimate and measure height to model metric relationships. 2.MD.A.1, 2.MD.A.3, MP5, 2.Mod1.AD1, 2.Mod1.AD2 Lesson 14: Represent and compare students’ heights. 2.MD.A.4, MP2, 2.Mod1.AD3	Topic C: Simplifying Strategies for Subtraction Lesson 13: Represent and solve <i>take from</i> word problems. 2.OA.A.1, MP3, 2.Mod2.AD1 Lesson 14: Use addition and subtraction strategies to find an unknown part. 2.NBT.B.7, MP7, 2.Mod2.AD4 Lesson 15: Use compensation to subtract within 100. 2.NBT.B.7, MP2, 2.Mod2.AD4 Lesson 16: Use compensation to subtract within 200. 2.NBT.B.7, MP8, 2.Mod2.AD4 Lesson 17: Take from a ten to subtract within 200. 2.NBT.B.7, MP6, 2.Mod2.AD4 Lesson 18: Take from a hundred to subtract within 200. 2.NBT.B.7, MP7, 2.Mod2.AD4 Lesson 19: Solve word problems with simplifying strategies for subtraction. 2.OA.A.1, 2.NBT.B.7, MP3, 2.Mod2.AD1, 2.Mod2.AD4	Lesson 11: Partition circles and rectangles into equal parts, and describe those parts as halves, thirds, or fourths. 2.G.A.3, MP6, 2.Mod3.AD6 Lesson 12: Describe a whole by the number of equal parts in halves, thirds, and fourths. 2.G.A.3, MP3, 2.Mod3.AD6 Lesson 13: Recognize that equal parts of an identical rectangle can be different shapes. 2.G.A.3, MP4, 2.Mod3.AD7	Lesson 11: Choose and defend efficient solution strategies to add up to four two-digit numbers. 2.OA.B.2, 2.NBT.B.5, 2.NBT.B.6, 2.NBT.B.9, MP4, 2.Mod4.AD2, 2.Mod4.AD4, 2.Mod2.AD2, 2.Mod4.AD10 Topic C: Simplifying Strategies for Subtracting Within 1,000 Lesson 12: Take from a ten or a hundred to subtract. 2.NBT.B.5, 2.NBT.B.7, 2.NBT.B.9, MP7, 2.Mod4.AD5, 2.Mod4.AD7, 2.Mod4.AD11 Lesson 13: Use compensation to subtract within 1,000. 2.NBT.B.5, 2.NBT.B.7, 2.NBT.B.9, MP3, 2.Mod4.AD5, 2.Mod4.AD7, 2.Mod4.AD11 Lesson 14: Use compensation to keep a constant difference by adding the same amount to both numbers. 2.NBT.B.7, 2.NBT.B.9, MP2, 2.Mod4.AD7, 2.Mod4.AD11 Lesson 15: Use compensation to keep a constant difference by subtracting the same amount from both numbers. 2.NBT.B.7, 2.NBT.B.9, MP5, 2.Mod4.AD7, 2.Mod4.AD11	Topic C: Use Measurement and Data to Solve Problems Lesson 13: Solve word problems that involve measurements and reason about estimates. 2.MD.B.5, MP6, 2.Mod5.AD5 Lesson 14: Solve addition and subtraction two-step word problems that involve length. 2.MD.B.5, MP4, 2.Mod5.AD5 Lesson 15: Use measurement data to create a line plot. 2.MD.D.9, MP7, 2.Mod5.AD7 Lesson 16: Create a line plot to represent data and ask and answer questions. 2.MD.D.9, 2.Mod5.AD7	Lesson 12: Reason about how equal arrays can be composed differently. 2.OA.C.3, 2.OA.C.4, 2.G.A.2, MP3, 2.Mod6.AD3, 2.Mod6.AD5 Lesson 13: Decompose an array and relate it to a number bond. 2.OA.C.3, 2.OA.C.4, 2.G.A.2, MP4, 2.Mod6.AD3, 2.Mod6.AD5 Topic D: The Meaning of Even and Odd Numbers Lesson 14: Relate doubles to even numbers and write equations to express the sums. 2.OA.C.3, MP8, 2.Mod6.AD2 Lesson 15: Pair objects and skip-count to determine whether a number is even or odd. 2.OA.C.3, MP7, 2.Mod6.AD2 Lesson 16: Use rectangular arrays to investigate combinations of even and odd numbers. 2.OA.C.3, MP3, 2.Mod6.AD2 Lesson 17: Solve word problems that involve equal groups and arrays. 2.OA.A.1, 2.OA.C.3, 2.OA.C.4, MP4, 2.Mod6.AD1, 2.Mod6.AD3, 2.Mod6.AD4 Lesson 18: Use various strategies to fluently add and subtract within 100 and know all sums and differences within 20 from memory. (Optional) 2.OA.B.2
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Topic E: Understand Place Value Units Lesson 20: Count and bundle ones, tens, and hundreds to 1,000. 2.NBT.A.1.a, MP8, 2.Mod1.AD12 Lesson 21: Count efficiently within 1,000 by using ones, tens, and hundreds. 2.NBT.A.2, MP4, 2.Mod1.AD13 Lesson 22: Use counting strategies to solve <i>add to with change unknown</i> word problems. 2.OA.A.1, 2.NBT.A.2, MP1, 2.Mod1.AD10, 2.Mod1.AD13 Lesson 23: Organize, count, and record a collection of objects. 2.NBT.A.1.a, 2.NBT.A.2, 2.NBT.A.3, MP1, 2.Mod1.AD12, 2.Mod1.AD13, 2.Mod1.AD15 Topic F: Three-Digit Numbers in Different Forms Lesson 24: Count up to 1,000 by using place value units. 2.NBT.A.1, 2.NBT.A.1.b, 2.NBT.A.2, MP7, 2.Mod1.AD11, 2.Mod1.AD13 Lesson 25: Write three-digit numbers in unit form and show the value that each digit represents. 2.NBT.A.1, 2.NBT.A.1.b, MP7, 2.Mod1.AD11 Lesson 26: Write base-ten numbers in expanded form. 2.NBT.A.3, MP7, 2.Mod1.AD15	Lesson 21: Use concrete models to decompose a ten with two-digit totals. 2.NBT.B.7, MP8, 2.Mod2.AD6 Lesson 22: Use place value drawings to decompose a ten and relate them to written recordings. 2.NBT.B.7, MP7, 2.Mod2.AD4, 2.Mod2.AD6 Lesson 23: Use concrete models and drawings to decompose a hundred. 2.NBT.B.7, MP2, 2.Mod2.AD4, 2.Mod2.AD6 Lesson 24: Use place value drawings to decompose a hundred and relate them to written recordings. 2.NBT.B.7, MP8, 2.Mod2.AD4, 2.Mod2.AD6 Lesson 25: Use place value drawings to subtract with two decompositions. 2.NBT.B.7, MP1, 2.Mod2.AD4, 2.Mod2.AD6 Lesson 26: Solve add to and take from with start unknown word problems. 2.OA.A.1, MP4, 2.Mod2.AD1 Lesson 27: Solve two-step word problems within 100. 2.OA.A.1, MP2	Lesson 19: Solve elapsed time problems. (Optional) MP8	Topic D: Strategies for Decomposing Tens and Hundreds Within 1,000 Lesson 16: Use concrete models to subtract and relate them to written recordings. 2.OA.B.2, 2.NBT.B.7, MP6, 2.Mod4.AD3, 2.Mod4.AD7 Lesson 17: Use place value drawings to represent subtraction with one decomposition and relate them to written recordings. 2.OA.B.2, 2.NBT.B.7, MP5, 2.Mod4.AD3, 2.Mod4.AD7 Lesson 18: Use place value drawings to represent subtraction with up to two decompositions and relate them to written recordings. 2.OA.B.2, 2.NBT.B.7, MP4, 2.Mod4.AD3, 2.Mod4.AD7 Lesson 19: Use place value drawings to represent subtraction from numbers with 0 in the tens and/or ones place and relate to a written recording. 2.OA.B.2, 2.NBT.B.7, MP3, 2.Mod4.AD3, 2.Mod4.AD7 Lesson 20: Subtract by using multiple strategies and defend an efficient strategy. 2.OA.B.2, 2.NBT.B.5, 2.NBT.B.7, 2.NBT.B.9, MP3, 2.Mod4.AD3, 2.Mod4.AD5, 2.Mod4.AD7, 2.Mod4.AD11		
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Lesson 27: Read, write, and relate base-ten numbers in all forms.
2.NBT.A.1, 2.NBT.A.1.b, 2.NBT.A.3, MP3, 2.Mod1.AD11, 2.Mod1.AD15

Topic G: Model Base-Ten Numbers Within 1,000 with Money

Lesson 28: Use place value understanding to count and exchange \$1, \$10, and \$100 bills.
2.NBT.A.1, 2.NBT.A.1.b, 2.NBT.A.1.a, MP6, 2.Mod1.AD11, 2.Mod1.AD12

Lesson 29: Count by \$1, \$10, and \$100.
2.NBT.A.2, MP8, 2.Mod1.AD13, 2.Mod1.AD14

Lesson 30: Determine how many \$10 bills are equal to \$1,000.
2.NBT.A.1, 2.NBT.A.1.a, 2.NBT.A.1.b, 2.NBT.A.2, MP1, 2.Mod1.AD11, 2.Mod1.AD12, 2.Mod1.AD13

Topic H: Compose and Decompose with Place Value Disks

Lesson 31: Count the total value of ones, tens, and hundreds with place value disks.
2.NBT.A.1, 2.NBT.A.1.b, 2.NBT.A.3, MP6, 2.Mod1.AD11, 2.Mod1.AD15

Topic E: Apply Efficient Addition and Subtraction Strategies

Lesson 21: Apply strategies to find sums and differences and relate addition to subtraction.
2.NBT.B.7, 2.NBT.B.9, MP7, 2.Mod4.AD6, 2.Mod4.AD7, 2.Mod4.AD10, 2.Mod4.AD11

Lesson 22: Solve compare with smaller unknown word problems.
2.OA.A.1, 2.NBT.B.5, MP1, 2.Mod4.AD1, 2.Mod4.AD4, 2.Mod4.AD5

Lesson 23: Solve two-step addition and subtraction word problems.
2.OA.A.1, 2.NBT.B.5, MP5, 2.Mod4.AD1, 2.Mod4.AD4, 2.Mod4.AD5

Lesson 24: Organize, count, and represent a collection of objects.
2.NBT.B.7, MP6, 2.Mod4.AD6, 2.Mod4.AD7



Lesson 32: Exchange 10 ones for 1 ten, 10 tens for 1 hundred, and 10 hundreds for 1 thousand. 2.NBT.A.1, 2.NBT.A.1.a, 2.NBT.A.1.b, MP7, 2.Mod1.AD11, 2.Mod1.AD12 Lesson 33: Model numbers with more than 9 ones or 9 tens. 2.NBT.A.1, 2.NBT.A.1.b, MP5, 2.Mod1.AD11 Lesson 34: Problem solve in situations with more than 9 ones or 9 tens. 2.NBT.A.1, 2.NBT.A.1.a, 2.NBT.A.1.b, MP3, 2.Mod1.AD11, 2.Mod1.AD12 Topic I: Compare Two Three-Digit Numbers in Different Forms Lesson 35: Compare three-digit numbers by using >, =, and <. 2.NBT.A.4, MP6, 2.Mod1.AD16 Lesson 36: Apply place value understanding to compare by using >, =, and <. 2.NBT.A.4, MP8, 2.Mod1.AD16 Lesson 37: Organize, count, represent, and compare a collection of objects. 2.NBT.A.2, 2NBT.A.4, MP1, 2.Mod1.AD13, 2.Mod1.AD16 Lesson 38: Compare numbers in different forms. (Optional) 2.NBT.A.3, 2.NBT.A.4, MP7, 2.Mod1.AD15, 2.Mod1.AD16					
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Year-Long Curriculum Overview: Levels K–2 | STORY OF UNITS

Trimester and quarter indicators are provided as a guide for pacing. A few optional lessons in each grade level are included in the total number of lessons. About thirty additional days are allotted at each level for assessment and responsive teaching.

		Level K Part-Part-Total	Level 1 Units of Ten	Level 2 Ten Tens
Trimester 1	Quarter 1	Module 1: Counting and Cardinality 7 Topics 33 Lessons	Module 1: Counting, Comparison, and Addition 4 Topics 25 Lessons	Module 1: Place Value Concepts Through Metric Measurment and Data • Place Value, Counting, and Comparing Within 1,000 9 Topics 38 Lessons
			Module 2: Addition and Subtraction Relationships 5 Topics 23 Lessons	
Trimester 2	Quarter 2	Module 2: Two- and Three-Dimensional Shapes 3 Topics 16 Lessons		Module 2: Addition and Subtraction Within 200 4 Topics 27 Lessons
		Module 3: Comparison 4 Topics 22 Lessons	Module 3: Properties of Operations to Make Easier Problems 5 Topics 26 Lessons	
	Quarter 3	Module 4: Composition and Decomposition 3 Topics 18 Lessons	Module 4: Comparison and Composition of Length Measurements 3 Topics 14 Lessons	Module 3: Shapes and Time with Fraction Concepts 4 Topics 19 Lessons
		Module 5: Addition and Subtraction 4 Topics 27 Lessons	Module 5: Place Value Concepts to Compare, Add, and Subtract 5 Topics 25 Lessons	Module 4: Addition and Subtraction Within 1,000 5 Topics 24 Lessons
Trimester 3	Quarter 4	Module 6: Place Value Foundations 4 Topics 24 Lessons	Module 6: Attributes of Shapes • Advancing Place Value, Addition, and Subtraction 6 Topics 31 Lessons	Module 5: Money, Data, and Customary Measurement 3 Topics 16 Lessons
				Module 6: Multiplication and Division Foundations 4 Topics 18 Lessons
		TOTAL: 25 Topics 140 Lessons	TOTAL: 28 Topics 144 Lessons	TOTAL: 29 Topics 142 Lessons

Supports of Diversity, Equity, and Inclusion

Providing Culturally Responsive Instruction

*Eureka Math*² values the funds of knowledge that students bring into the classroom and acknowledges that deep learning happens when all students are able to leverage their diverse life experiences while learning mathematics.

Launch

10

Students solve and compare related addition and subtraction problems.

Gather students and present the following situation.

There are 7 pencils on my desk. (Display the picture of 7 pencils.)

I put some more pencils on my desk. (Display the picture of 9 pencils.)

Now there are 9 pencils on my desk.

How many pencils did I put on my desk? How do you know?

Have students think-pair-share to determine how many pencils were put on the desk. Invite students to explain their thinking. If possible, include someone who counted on to find the unknown part.

2 pencils. We counted on: Sevensnnn, 8, 9.

2 pencils. We know $7 + 2 = 9$.

Ask students to write a number sentence that corresponds to the story and to the unknown. Have the class discuss how the number sentence represents the story and the idea that the unknown represents the added part, or the pencils put on the desk.

$7 + \boxed{2} = 9$

Continue to display the picture of 9 pencils.

FAMILY MATH

Decompose Numbers

Dear Family,

Your child is learning about the relationship between numbers by sorting objects in more than one way. You might be thinking, "Why are we still sorting?" Sorting is a way to see how numbers can be broken into parts. For example, 5 bears can be sorted into 4 yellow bears and 1 red bear. The number sentence $5 = 4 + 1$ represents this situation. 5 bears can also be sorted into 3 big bears and 2 small bears. Your child might say, "5 is 3 and 2" to represent this sort.

Invite your child to show you counting the math way—a new way they are learning to count on their fingers.

Words We Are Learning

number sentence

Sorting by color—5 is 4 and 1.

Sorting by size—5 is 3 and 2.

At-Home Activities

Activity Idea 1 Sorting Different Ways

Give your child a group of 4 or 5 items, such as toys, markers, or coins, that they can sort into different categories by color, shape, or size. Let your child decide how to sort. Then ask the following questions to help your child think about the total number of objects and the number in each group.

- How many _____ are there?
- How many groups did you make?
- How many are in this group?

Put the objects back into a pile. Ask your child to sort in a different way, and then ask the same questions. Did this sort result in the same number of groups?

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UDL: Engagement

The pencil context is one option for presenting the situations in this lesson. If desired, use a context that is more relevant or engaging to your students. Be sure that it works for the actions of both adding to and taking away.

One of the ways *Eureka Math*² invites students into mathematics and celebrates the diversity present in every classroom is by highlighting for teachers those specific lesson moments that can be tailored to bring students' experiences from their home and communities into the classroom. For example, a strategically placed Universal Design for Learning margin note in grade 1 module 2 lesson 11 (page 176) suggests that teachers leverage students' interests when solving and comparing related addition and subtraction problems.

Adjusting contexts to make them more meaningful to students provides options for recruiting interest by personalizing the content to learners' lives. In kindergarten module 3 lesson 11 (page 128), teachers draw on students' experiences from their homes by modifying the baked goods to types of baked goods that relate to students' cultures. Students' experiences from their homes and communities are also leveraged through Family Math. Family Math is a letter to families that describes the major concepts in the current topic. Each letter uses words and phrases that should be familiar to the student from the lessons in the topic. It includes visual supports that students can use to explain the concepts or strategies to their family or that can help adults at home understand or unpack a concept. Family Math also includes simple and practical at-home activities to extend learning and help students see mathematics in their world.

Students are diverse, and any one classroom can have students from either an individualist frame of reference or a collectivist frame of reference. The teacher-writers of *Eureka Math*² considered both frames of reference in intentionally balancing activities that build off individualism as well as collectivism.

In her book *Culturally Responsive Teaching and the Brain*, Zaretta Hammond references collectivism as emphasizing relationships, interdependence within a community, and cooperative learning (page 25). In *Eureka Math*², a collectivist approach to learning mathematics is present in the embedded cooperative learning structures in open-middle and open-ended tasks. Specifically, the instructional routines Numbered Heads and Co-construction are rooted in students

Language Support

Consider using strategic, flexible grouping throughout the module.

- Pair students who have different levels of mathematical proficiency.
- Pair students who have different levels of English language proficiency.
- Join pairs of students to form small groups of four.

As applicable, complement any of these groupings by pairing students who speak the same native language.

working cooperatively in groups to deepen their mathematical conceptual understanding. See grade 2 module 3 lesson 10 (pages 163–165) for an example of Co-construction and grade 2 module 1 lesson 34 (pages 487–488) for an example of Numbered Heads. In grade 1 module 1 lesson 16 (page 224) there is an example of Numbered Heads modified for younger students.

Beyond the instructional routines, *Eureka Math*² taps the power of student relationships and interdependence through frequent partner and group work. For any partner or group work referenced in the instructional materials, teachers may make use of strategic, flexible groupings that build off students’ strengths, including home language. A Language Support margin note in the first lesson of every module serves to remind teachers to leverage students’ cultural perspectives when strategically placing students in partners.

Learn35

Halves and Quarters

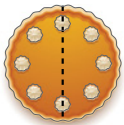
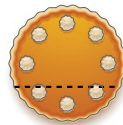
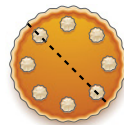
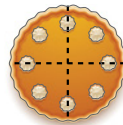
Students identify whether an object is partitioned into halves or fourths and justify their thinking.

Display each of the pictures of partitioned pies.

Engage students in a variation of the Take a Stand routine as each picture is displayed. Have students stand if they think the picture shows an object cut into halves. Invite students who stand to explain their reasoning.

Language Support

Support student-to-student discourse by pointing out the sentence stems on the Talking Tool. Encourage students to use the sentence stems to build on one another’s ideas. For example, a student might say, “I disagree that this pie shows halves because the 2 parts are not the same size.”

			
Both sides are the same size. There are 2 equal parts. The parts are the same shape. They are half-circles.	The 2 parts are not the same size. The pieces are not halves because they are not equal shares.	The 2 pieces are the same shape and size. They are still halves, just turned.	Halves have 2 pieces. This has 4. This shows fourths. The parts are all the same shape. They are quarter-circles.

Language Support

The term *quarters* is a synonym for *fourths*. Help students remember the terms presented in this topic by making an anchor chart such as the one shown.



Fourths
Quarters



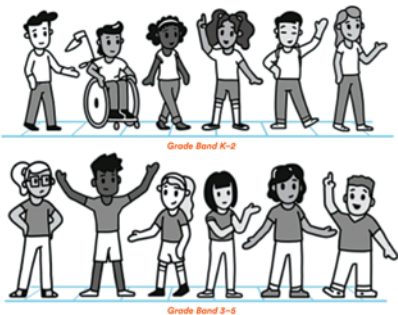
Halves

Hammond references individualism as emphasizing individual achievement and independence (page 25). In *Eureka Math*², an individualist approach to learning mathematics may be seen in the embedded systems for independent practice in every lesson, such as Exit Tickets and Problem Sets. Additionally, the instructional routines Critique a Flawed Response and Take a Stand both start with

students working on a math problem individually before engaging in discourse. See grade 2 module 3 lesson 12 (page 195) for an example of the Critique a Flawed Response routine and grade 1 module 6 lesson 12 (pages 185–186) for an example of the Take a Stand routine, shown in the image to the left.

Beyond balancing individualism and collectivism, *Eureka Math*² activities and problems provide students with mirrors in which to see their own cultural perspectives reflected, as well as windows through which to view others’ cultural perspectives.

*Eureka Math*² is an inclusive mathematics curriculum that represents diverse doers of math. The curriculum’s images, fine art, and pictures of people represent diversity through problems and exercises related to real-life experiences, perspectives, and contributions of people from various cultures, ethnicities, and gender identities. These representations affirm student identities while rejecting the stereotypes and biases that have excluded many students from mathematical learning in favor of a more robust and inclusive perspective. Representing a diverse array of doers of mathematics in the curriculum inspires all students to think of themselves as mathematicians.



For example, *Eureka Math*² includes various mathematical activities that involve counting on hands or simulating a number line with one’s fingers. In images throughout the curriculum, care was taken to include a variety of body types and skin tones.

The names used in word problems and for sample students in the lesson vignettes are intentionally diverse to represent the wide variety of students who use the curriculum. The names in student-facing word problems are also designed for readability to ensure that they are not a barrier to accessing the math.

Story of Units®
Tam, Kit, Zan, Ren, Mac, Jon, Baz, Liv, Jade, Ling, Sal, Deepa, Oka, Mia, Gabe, Pablo, Shea, Jayla, Shen, Lacy, Sasha, Yuna, Leo, Adesh, Toby

According to CAST, “individuals are engaged by information and activities that are relevant and valuable to their interests and goals.” (UDL Guidelines, Engagement, Checkpoint 7.2) *Eureka Math*² also leverages students’ experiences, goals, and interests through Math Past (described below), art connections, and wordless context videos.

To honor the diverse contributions to the development of the field of mathematics, to build knowledge about our shared math history, and to empower every child to see themselves as able to do mathematics, nearly every module in *Eureka Math*² includes a feature called Math Past. Each Math Past tells the history of some big ideas in the module, recounting the story of the mathematics through artifacts, discoveries, and other contributions from cultures around the world. Math Past also provides ideas about how to engage students in the history of mathematics. Math Past counters the

traditional Eurocentric perspective and celebrates the many contributions of Black, Indigenous, and People of Color communities to the history of mathematics.

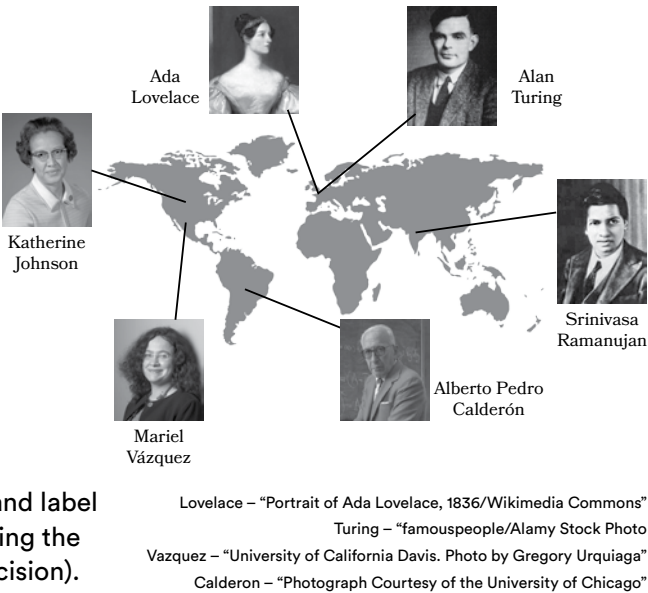
For example, a real-world lesson in grade 2 module 5 about determining when and why precise measurements are needed highlights the biography of Katherine Johnson, who was the first African American to work with the American Space Task Group. Her calculations were crucial for allowing NASA to safely send and return the first astronauts to space in 1961 and to the moon. Students discuss why Johnson needed exact numbers rather than estimates in her calculations. Students go on to reason about what real-life situations require precision rather than estimation. Later, they measure accurately, solve word problems with lengths, and label their answers with an appropriate unit (addressing the mathematical habit of mind of attending to precision). The Math Past Teacher Resource (pages 274–275) highlights the esteemed group of women known as Hidden Figures at NASA. Students are asked to think about what it means to be a *human computer*, why precision is important in mathematics, and the invaluable contributions made by this team of women.

In a similar vein, *Eureka Math*² connects works of fine art to the standards of each grade level.

Each *Teach* book opens with a stunning work of fine art that has a connection to the math learned in the grade. There is also a wide variety of additional pieces of art embedded in each grade’s lessons. For example:

- Launch (the opening section of each lesson) in grade K module 6 lesson 21 relates Faith Ringgold’s *The Sunflower Quilting Bee at Arles* to both estimating and recognizing and writing numerals to 20 and beyond.
- Land in grade 2 module 6 lesson 8 connects the painting *Castle and Sun* by Paul Klee to a foundational understanding of multiplication when students locate as many arrays as possible in the artwork.

Additionally, *Eureka Math*² lessons include more than 190 videos. These wordless context-building videos highlight how we use math



to solve problems in our everyday lives and make sense of the world around us. Three types of highly engaging videos may be found in the curriculum: character animation, collage animation, and live action.

Students can identify with the diverse set of actors and characters in the videos, which helps them visualize how math is part of their own lives. Through these videos, students will more readily realize that math surrounds them and that they, too, can engage in mathematical pursuits. The videos allow students to see themselves in the math problems they encounter, which lowers the barrier to engagement and makes the math classroom a more welcoming place.

Wordless videos in lessons serve many other purposes as well, such as the following:

- They make the context for a given problem come alive, putting all students on the same footing by activating or building the requisite background knowledge.
- They remove any language and reading barriers to the written word problem.
- They raise the accessibility of mathematics through accurate and inclusive representation.
- They show the many ways in which we interact with math in the world around us and how these interactions spark curiosity and joy.
- They help students see the delight and wonder associated with being a mathematician.
- They create excitement and buzz in the classroom about the content of the new word problem.
- They invite students to tell the story of the math problem, to notice, to wonder, and to drive the discussion.

Examples include:

- Grade K module 6 lesson 8: *Craft Fair*
- Grade 1 module 2 lesson 13: *Crunchy Carrots*
- Grade 2 module 2 lesson 27: *Imani’s Wish*

Specific instructional prompts, engaging word problems, accessible and engaging tasks, art connections, Math Past connections, and context videos throughout *Eureka Math*² work together to create a powerful curriculum that welcomes all students and invites them to become doers of mathematics.

Display *Castle and Sun*, 1928, by Paul Klee.

Invite students to be detectives and find as many arrays as they can in the artwork. Choose a few students to point out the arrays they found. For each array, invite students to share the matching repeated addition equation for both rows and columns. Then choose one array to focus the discussion.

Invite students to think-pair-share about the effect of describing an array by rows or by columns.

If we look at the rows, the repeated addition equation is $5 + 5 = 10$.

If we look at the columns, the repeated addition equation is $2 + 2 + 2 + 2 + 2 = 10$.

The total doesn’t change because the array is just flipped.

Display the pictures of arrays that show 3 rows of 2.



Klee, Paul (1879–1940)
Castle and Sun, 1928. Canvas.
© 2020 Artists Rights Society (ARS), New York.
Photo Credit : Erich Lessing / Art Resource, NY

Addressing Learner Variance

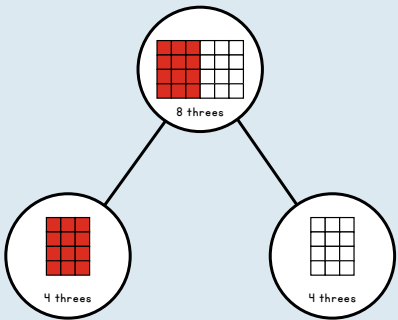
To ensure success of all learners, every *Eureka Math*² lesson includes Universal Design for Learning (UDL) strategies and scaffolds that address learner variance. These suggestions promote flexibility with engagement, representation, and action and expression, the three UDL principles described by CAST. These strategies and scaffolds are complements to the curriculum’s overall alignment with the UDL Guidelines and were designed to support educators in effectively teaching students who experience difficulty in mathematics. The strategies are based on research specific to mathematics instruction.

According to *Teaching Mathematics Meaningfully: Solutions for Reaching Struggling Learners, Second Edition*, (page 71) “Students who have learning difficulties that affect their ability to do well in mathematics come from a variety of backgrounds and experiences. Although each of these students is individual and unique, students often demonstrate one or more of the nine learning characteristics...” The nine learning characteristics described include: learned helplessness, passive learning, knowledge and skills gaps, math anxiety, memory disabilities, attention disabilities, metacognitive thinking disabilities, processing disabilities, and reading disabilities. Some of these characteristics can affect all students who may be struggling in math regardless of whether they have learning-related disabilities (learned helplessness, passive learning, knowledge and skills gaps, math anxiety). Other characteristics result from learning-related disabilities (memory disabilities, attention disabilities, metacognitive thinking disabilities, processing disabilities, and reading disabilities). These learning characteristics as well as curriculum factors can result in common mathematics performance traits of students who struggle in mathematics.

According to Allsopp et. al (2018), “Mathematics visuals appear to be most effective when used in conjunction

UDL: Action & Expression

Consider presenting the information in a different format. Invite students to use a number bond to show the shaded and unshaded parts of the array in unit form.



UDL: Representation

Demonstrate partitioning, or cutting, the array into two parts. Highlight the connection between the array and the number bond by pushing the two parts from the bottom left and bottom right to the top center while saying “12 and 12 make 24.” Similarly, pull the two parts back to the original positions and say, “24 decomposed into two parts is 12 and 12.”

UDL: Action & Expression

Consider adapting the process for making the numberless ruler to reduce barriers posed by the motor demands of the task. For example, students might work in pairs to create rulers. Have one student hold the paper and the tiles while the other student makes tick marks. Then have partners switch tasks.

with other effective instructional practices. An example of this is the use of explicit instruction techniques in conjunction with visuals. (page 192).” “Explicit cueing techniques can be utilized with visuals in ways that help students attend to the visual’s most important features and its representation of the mathematical idea. Simple techniques, such as color-coding, using directional arrows, and highlighting, can help students focus on what is most relevant.”

A variety of other strategies suggested in the literature are the foundation of all UDL margin notes found in *Eureka Math*². Each margin note is aligned to a strategy found to minimize the impacts of one of the nine learning characteristics listed above. Strategies include, but are not limited to:

- Break down tasks into manageable chunks.
- Demonstrate the belief that students can be successful.
- Visually organize to cue student to important aspects of concept.
- Teach students to change their frame of thinking.
- Embed math in relevant contexts.
- Help students make connections to prior knowledge.
- Engage students by addressing interests.
- Celebrate progress and success.
- Cultivate a growth mindset.
- Relate math to students’ lives.
- Use concrete materials.
- Associate content with meaningful context.
- Use a variety of strategies (visual, auditory, tactile, or kinesthetic).

Launch

15

Students become familiar with ancient Egyptian measurement tools.

Activate prior knowledge by asking students what tools they use to measure length.

Introduce the idea that people in Egypt long ago used different tools to measure length. Display the pictures of ancient Egypt to help establish a sense of place and historical context. Then show students where Egypt is on a map.

Long ago, Egyptians measured length using a unit called a *cubit*.

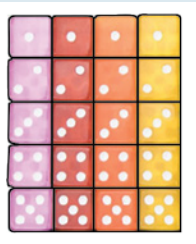


- Provide visual organizers.
- Provide think alouds.
- Use novel learning contexts.
- Help students focus on what is important rather than on things that are irrelevant.

*Eureka Math*² embeds differentiation through the simple-to-complex sequencing of lesson and Practice problems. This logical sequence gradually reduces scaffolds and builds in complexity, allowing teachers to differentiate assignments for either individual or small-group work. For all students, including those working above grade level, the gradual reduction of support and increase in complexity builds independent thinking and encourages productive struggle. Problems toward the end of the Problem Set (a lesson’s daily independent practice) are often open-ended, at Depth of Knowledge (DOK) levels 2 and 3, and integrate two or more standards and/or Standards for Mathematical Practice. Teachers can assign problems of different complexities to students according to their needs or allow students to select problems in the 10-minute (approximate) timeframe. Lessons provide differentiation suggestions at the point of instruction to support a wide variety

Differentiation: Challenge

Invite students to answer the question of how many in more than one way. Also consider providing students with dice to make their own configurations. They can share them with a partner or group to find how many.



of learners. Differentiation margin notes found in the *Teach* book offer guidance for adapting instruction so that all students can successfully access grade-level content. There are two types of Differentiation margin notes: Support and Challenge. Challenge boxes suggest ways to keep students working at a more advanced level engaged by providing opportunities for extension while Support boxes offer specific, lesson-based scaffolds for helping students access content.

In this example from grade 1 module 6 lesson 25, the Differentiation: Challenge margin note offers a suggestion for students to interact with the lesson objective of solving nonroutine problems in a deeper way. During the lesson, students use the shape of a set of dice to count a total by recognizing patterns. The margin note suggests students consider dice with other totals, which raises the ceiling to another level of thinking about patterns and counting with efficiency.

This Differentiation: Support margin note from grade 1 module 6 lesson 14 encourages teachers to alter the number of representations used in instruction to support students for whom too many stimuli may be problematic.

Differentiation: Support

The cards include times to the hour and half hour in variations: analog, digital, and word form. Support the needs of your students by removing some forms from the set as necessary.

Supporting Multilanguage Learners

*Eureka Math*² writers relied on language development research to outline and build in the language support needed for multilanguage learners to engage with the language-rich lessons. With the goal of supporting the clear, concise, and precise use of reading, writing, speaking, and listening in English, *Eureka Math*² supports multilanguage learners through each lesson’s instructional design. It does this by including instructional best practices, support for mathematical discourse, and support for the different tiers of terminology. Additionally, Language Support margin notes provide just-in-time, targeted instructional recommendations to support multilanguage learners.

Instructional Best Practices

The following table outlines the instructional best practices included in *Eureka Math*².

Practice	<i>Eureka Math</i> ²
Activate prior knowledge (mathematics content, terminology, contexts)	The daily Fluency and Launch lesson components activate prior knowledge to prepare students for new learning. Context videos demonstrate math concepts in a concrete or real-world context.
Provide multiple entry point to the mathematics	Recurring Notice and Wonder routines and frequent open-middle and open-ended tasks provide multiple points of entry for students to participate. The inclusion of fine art and Math Past history components engages students with math in the real world.
Use clear, concise student-facing language	Readability guidelines ensure that words are never an obstacle to math learning.
Provide strategic active processing time	Frequent mathematical discourse, core instructional routines, and the 10/2 principle expand opportunities for students to synthesize and process new information.
Illustrate multiple modes and formats	Varied physical and visual models, such as digital interactives, context videos, and graphic organizers help students make connections and deepen understanding.
Provide opportunities for strategic review	Daily fluency activities, distributed practice Remember problems, Exit Tickets, and comprehensive assessments provide frequent opportunities for strategic view.

(See more at the Great Minds MLL blog at <https://gm.greatminds.org/how-to-support-multilingual-learners-in-engaging-in-math-conversations-in-the-classroom>.)

Mathematical Discourse

To support all learners, lessons provide ample authentic and engaging opportunities for students to read, write, speak, and listen. *Eureka Math*² supports teachers in creating language-rich

classrooms by modeling teacher-student discourse and by providing suggestions for supported student-to-student discourse. Because curricula in general have an abundance of receptive language experiences (reading and listening), *Eureka Math*² focuses specific supports on language production (speaking and writing) in mathematics.

The instructional routines that promote discourse are aligned with Stanford’s Language Design Principles of supporting sense-making, optimizing output, cultivating conversation, and maximizing linguistic and cognitive meta-awareness.

*Eureka Math*² periodically includes Language Support notes that suggest specific sentence frames and sentence starters to support multilanguage learners in student-to-student discussions, such as those used in instructional routines. General sentence frames and sentence starters are provided in the Talking Tool which is referenced often during times of student-to-student discourse.

Terminology

*Eureka Math*² lessons give students experience with a new mathematical concept before naming it with a precise mathematical term. Students may see a mathematical concept come to life in a digital interactive, manipulate counters in groups, or use an instructional routine to engage in mathematical discourse before the teacher gives that concept a name. In addition, teachers are provided with educative guidance, either in the body of the lesson or in a Language Support margin note, to support students in pairing the written term with a visual representation.

*Eureka Math*² highlights domain-specific terms from previous lessons in the current lesson, along with instructional recommendations for supporting those terms. These instructional recommendations focus on previewing the meaning of the terms before students are expected to interact with them in the mathematics of the lesson. Additionally, domain-specific terms from previous lessons are also supported by pairing the written term with a visual representation. For each grade, the academic verbs needed to engage with the mathematics were considered. Each grade in *Eureka Math*² offers a carefully curated list of targeted academic verbs that appear in the lessons for students to preview before they are expected to understand and use the language For

Talking Tool

I Can Share My Thinking 	My drawing shows I did it this way because I think ____ because
I Can Agree or Disagree 	I agree because I disagree because I did it a different way. I
I Can Ask Questions 	How did you . . . ? Why did you . . . ? Can you explain . . . ?
I Can Say It Again 	I heard you say ____ said Can you say it another way?

example, before students are asked to *combine* in grade 1 module 2 lesson 23 (page 350), teachers are encouraged to preview the meaning of the academic verb, supporting the meaning of the term in a class discussion by emphasizing various familiar contexts in which that verb is used.

Multiple-meaning terms encompass homophones like *whole* and *hole*, homographs like *scale* and *scale*, and other pronunciation-based challenges, like the difference between *estimate* (as a noun, as in, *What is your estimate?*) and *estimate* (as a verb, as in, *Estimate the sum.*). Lessons call out multiple-meaning terms that could affect emergent bilingual learners’ understanding of the mathematics. Lessons also include Language Support notes to preview the meaning of the term in the lesson. These previews include pairing the term with a visual, with real items, or with a video to highlight the different meanings of the term and emphasize the specific meaning used in the lesson.

Language Support Boxes

Language Support margin notes often prompt teachers to consider using strategic, flexible grouping in each activity of the module to support multilanguage learners. These grouping suggestions invite teachers to use students’ knowledge and home language by pairing students in different ways. Each of these different ways of pairing students has specific benefits for multilanguage learners. The Language Support margin notes also highlight discourse, language, or terminology supports.

Language Support

This is the first occurrence of the term *combine* in grade 1 lessons. Support understanding of this term by sharing some examples used in real life.

- We combine all the grade 1 classes in one school bus when we go on a field trip.
- We combine all our school supplies and share them.
- When we cook, we combine the ingredients in the recipe.

Language Support

Support students’ language development by pointing out that *table* has multiple meanings.

Point to a tabletop and say, “This is one kind of table. We can sit at a table when we eat lunch.” Then point to the chart and say, “This is another kind of table. We use it to show information.”

The term *key* is introduced later in the lesson. Consider using a similar support as you introduce that term.

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