Correlation of Missouri Learning Standards for Mathematics to i-Ready Diagnostic & Instruction Mathematics Lessons

Grade K

Missouri Learning Standards for Mathematics	Aligned Lessons
K.NS.A.1 Count to 100 by ones and tens.	Order Numbers to 10*
K.NS.A.2 Count forward beginning from a given number between 1 and 20.	Order Numbers to 20 Practice: Order Numbers 1 to 20
K.NS.A.4 Read and write numerals and represent a number of objects from 0 to 20.	Count up to 3 Objects* Count up to 5 Objects* Count up to 10 Objects in Rows or Arrays* Practice: Count up to 10 Objects in Rows or Arrays* Find One More* Count up to 20 Objects* Practice: Count up to 20 Objects*
K.NS.B.5 Say the number names when counting objects, in the standard order, pairing each object with one and only one number name and each number name with one and only one object.	Count up to 3 Objects Count up to 5 Objects Count up to 10 Objects in Rows or Arrays Practice: Count up to 10 Objects in Rows or Arrays Count up to 10 Objects in Different Arrangements Practice: Count up to 10 Objects, Part 1 Practice: Count up to 10 Objects, Part 2 Count up to 20 Objects

**This lesson is related to the aligned standard*

Grade K (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
	Practice: Count up to 20 Objects
K.NS.B.6 Demonstrate that the last number name said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted.	Count up to 3 Objects* Count up to 5 Objects* Count up to 10 Objects in Rows or Arrays* Practice: Count up to 10 Objects in Rows or Arrays* Count up to 10 Objects in Different Arrangements* Practice: Count up to 10 Objects, Part 1* Practice: Count up to 10 Objects, Part 2* Count up to 20 Objects* Practice: Count up to 20 Objects*
K.NS.B.7 Demonstrate that each successive number name refers to a quantity that is one larger than the previous number.	Find One More
K.NS.B.9 Demonstrate that a number can be used to represent "how many" are in a set.	Count up to 10 Objects in Rows or Arrays Practice: Count up to 10 Objects in Rows or Arrays Count up to 10 Objects in Different Arrangements Practice: Count up to 10 Objects, Part 1 Practice: Count up to 10 Objects, Part 2

**This lesson is related to the aligned standard*

Grade K (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
	Make Groups of up to 10 Objects Practice: Count and Make Groups to 10, Part 1 Practice: Count and Make Groups to 10, Part 2 Count up to 20 Objects Practice: Count up to 20 Objects Make Groups of up to 20 Objects Practice: Make Groups of up to 20 Objects
K.NS.C.10 Compare two . . . sets of objects and identify which set is equal to, more than or less than the other.	More Less
K.NS.C.10 Compare two or more sets of objects and identify which set is equal to, more than or less than the other.	Compare Numbers Within 10
K.NS.C.11 Compare two numerals, between 1 and 10, and determine which is more than or less than the other.	Compare Numbers Within 10
K.NBT.A.1 Compose and decompose numbers from 11 to 19 into sets of tens with additional ones.	Explore Teen Numbers
K.RA.A.1 Understand . . . subtraction as taking apart or taking from. Represent . . . subtraction within 10.	Subtract Within 10
K.RA.A.1 Understand . . . subtraction as taking apart or taking from. Represent . . . subtraction within [5].	Understand Subtraction

Grade K (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
K.RA.A.1 Understand addition as putting together or adding to . . . Represent addition . . . within 10.	Add Within 10
K.RA.A.1 Understand addition as putting together or adding to . . . Represent addition . . . within [5].	Understand Addition
K.RA.A.1 Understand addition as putting together or adding to, and understand subtraction as taking apart or taking from. Represent addition and subtraction within 10.	Add Within 5* Subtract Within 5* Practice: Add and Subtract Within 5 Practice: Add and Subtract Within 10, Part 1 Practice: Add and Subtract Within 10, Part 2 Practice: Add and Subtract Within 10
K.RA.A.2 Understand . . . subtraction as taking apart or taking from. Demonstrate fluency for . . . subtraction within 5.	Subtract Within 5 Subtract Within 10
K.RA.A.2 Understand addition as putting together or adding to . . . Demonstrate fluency for addition . . . within 5.	Add Within 5 Add Within 10
K.RA.A.2 Understand addition as putting together or adding to, and understand subtraction as taking apart or taking from. Demonstrate fluency for addition and subtraction within 5.	Understand Addition* Understand Subtraction* Fluently Add and Subtract Within 5
K.RA.A.3 Understand addition as putting together or adding to . . . Decompose numbers . . . in more than one way.	Understand Addition
K.RA.A.3 Understand addition as putting together or adding to, and understand	Number Partners for 3

Grade K (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
subtraction as taking apart or taking from. Decompose numbers . . . in more than one way.	Number Partners for 4 and 5 Number Partners for 6 and 7 Number Partners for 8 and 9 Number Partners for 10 Practice: Number Partners for 10
K.RA.A.3 Understand addition as putting together or adding to, and understand subtraction as taking apart or taking from. Decompose numbers less than or equal to 10 in more than one way.	Add Within 5* Understand Subtraction* Subtract Within 5* Add Within 10* Subtract Within 10*
K.RA.A.4 Understand addition as putting together or adding to . . . Make 10 for any number from 1 to 9.	Practice: Add Within 10
K.RA.A.4 Understand addition as putting together or adding to, and understand subtraction as taking apart or taking from. Make 10 for any number from 1 to 9.	Understand Addition* Add Within 5* Understand Subtraction* Subtract Within 5* Add Within 10* Subtract Within 10* Make 10

**This lesson is related to the aligned standard*

Grade K (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
	Practice: Make 10
K.GM.A.2 Compare the measurable attributes of two objects.	Longer or Shorter Taller or Shorter Lighter or Heavier Holds More or Less
K.GM.C.6 Identify shapes and describe objects in the environment using names of shapes, recognizing the name stays the same regardless of orientation or size.	Identify Two-Dimensional Shapes Practice: Identify Two-Dimensional Shapes
K.GM.C.6 Identify [circular] shapes . . . using names of shapes, recognizing the name stays the same regardless of orientation or size.	Circle
K.GM.C.6 Identify [cubic] shapes . . . using names of shapes, recognizing the name stays the same regardless of orientation or size.	Cube
K.GM.C.6 Identify [spherical] shapes . . . using names of shapes, recognizing the name stays the same regardless of orientation or size.	Sphere
K.GM.C.6 Identify [square] shapes . . . using names of shapes, recognizing the name stays the same regardless of orientation or size.	Square
K.GM.C.6 Identify [triangular] shapes . . . using names of shapes, recognizing the name stays the same regardless of orientation or size.	Triangle
K.GM.C.7 Describe the relative positions of objects in space.	Left and Right

Grade K (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
K.DS.A.1 Classify objects into given categories . . .	Different Same
K.DS.A.1 Classify objects into given categories; count the number of objects in each category.	Sort Objects Practice: Sort Objects
K.DS.A.2 Compare category counts using appropriate language.	Sort Objects Practice: Sort Objects More Less

Grade 1

Missouri Learning Standards for Mathematics	Aligned Lessons
1.NS.A.1 Count to 120, starting at any number less than 120.	Order Numbers to 120 Practice: Order Numbers to 120
1.NS.A.2 Read and write numerals and represent a number of objects with a written numeral.	Order Numbers to 120* Practice: Order Numbers to 120*
1.NBT.A.1 Understand that 10 can be thought of as a bundle of 10 ones - called a "ten".	Identify Teen Numbers Practice: Identify Teen Numbers Build Teen Numbers Practice: Build Teen Numbers Identify Two-Digit Numbers Practice: Identify Two-Digit Numbers Practice: Tens and Ones
1.NBT.A.4 Count by 10s to 120 starting at any number.	Order Numbers to 120 Practice: Order Numbers to 120
1.NBT.B.5 Add within 100.	Add Multiples of Ten to Multiples of Ten Practice: Add Multiples of Ten Add Multiples of Ten to Any Two-Digit Number Practice: Add Multiples of 10 to Two-Digit Numbers Add Two-Digit and One-Digit Numbers

**This lesson is related to the aligned standard*

Grade 1 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
	Practice: Add Two-Digit and One-Digit Numbers Add More Two-Digit and One-Digit Numbers Practice: Add More Two-Digit and One-Digit Numbers Add Two-Digit Numbers Practice: Add Two-Digit Numbers Add More Two-Digit Numbers Practice: Add More Two-Digit Numbers
1.NBT.B.6 Calculate 10 more or 10 less than a given number mentally without having to count.	Add Multiples of Ten to Multiples of Ten Practice: Add Multiples of Ten Subtract Multiples of Ten from Multiples of Ten Practice: Subtract Multiples of Ten Add Multiples of Ten to Any Two-Digit Number Practice: Add Multiples of 10 to Two-Digit Numbers
1.NBT.B.7 Add . . . a multiple of 10 from another two-digit number . . .	Add Multiples of Ten to Multiples of Ten Practice: Add Multiples of Ten Add Multiples of Ten to Any Two-Digit Number

Grade 1 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
	Practice: Add Multiples of 10 to Two-Digit Numbers
1.NBT.B.7 [S]ubtract a multiple of 10 from another two-digit number . . .	Subtract Multiples of Ten from Multiples of Ten Practice: Subtract Multiples of Ten
1.RA.B.5 Use properties as strategies to add and subtract.	Add in Any Order
1.RA.B.6 Demonstrate that subtraction can be solved as an unknown-addend problem.	Think Addition to Subtract Count On to Subtract
1.RA.C.7 . . . [S]ubtract within 20.	Count On to Subtract Make a Ten to Subtract Practice: Make a Ten to Subtract
1.RA.C.7 Add . . . within 20.	Count On to Add Practice: Count On to Add Doubles Doubles and Near Doubles Make a Ten to Add Practice: Make a Ten to Add
1.RA.C.7 Add and subtract . . .	Fluently Add and Subtract Within 10
1.RA.C.7 Add and subtract within 20.	Think Addition to Subtract
1.RA.C.8 Demonstrate fluency with . . . subtraction . . .	Make a Ten to Subtract Practice: Make a Ten to Subtract

**This lesson is related to the aligned standard*

Grade 1 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
1.RA.C.8 Demonstrate fluency with addition . . .	Count On to Add Practice: Count On to Add Doubles Doubles and Near Doubles Make a Ten to Add Practice: Make a Ten to Add
1.RA.C.8 Demonstrate fluency with addition and subtraction . . .	Think Addition to Subtract Count On to Subtract
1.RA.C.8 Demonstrate fluency with addition and subtraction within 10.	Fluently Add and Subtract Within 10
1.GM.A.1 Distinguish between defining attributes versus non-defining attributes . . .	Understand Attributes of Shapes Practice: Attributes of Shapes
1.GM.A.4 Partition circles and rectangles into . . . four equal shares, and describe the shares and the wholes verbally.	Divide Shapes into Four Equal Parts Practice: Identify Two or Four Equal Parts
1.GM.A.4 Partition circles and rectangles into two . . . equal shares, and describe the shares and the wholes verbally.	Divide Shapes into Two Equal Parts
1.GM.B.5 Order three or more objects by length.	Compare Lengths*
1.GM.B.7 Demonstrate the ability to measure length . . . using objects.	Measure Lengths

**This lesson is related to the aligned standard*

Grade 2

Missouri Learning Standards for Mathematics	Aligned Lessons
2.NBT.A.1 Understand three-digit numbers are composed of hundreds, tens and ones.	Understand Hundreds, Tens, and Ones Use Hundreds, Tens, and Ones Practice: Use Hundreds, Tens, and Ones Practice: Place Value to Hundreds
2.NBT.A.2 Understand that 100 can be thought of as 10 tens - called a "hundred".	Understand Hundreds, Tens, and Ones Use Hundreds, Tens, and Ones Practice: Use Hundreds, Tens, and Ones Practice: Place Value to Hundreds
2.NBT.B.6 Demonstrate fluency with . . . subtraction within 100.	Subtract Within 100 on Number Lines Practice: Subtract Within 100 on Number Lines Add to Subtract Within 100 on Number Lines, Part 2 Practice: Add to Subtract on Number Lines, Part 2 Practice: Subtract on Number Lines (Within 100)
2.NBT.B.6 Demonstrate fluency with addition . . . within 100.	Add by Breaking Apart Two-Digit Numbers Practice: Add by Breaking Apart Two-Digit Numbers Add Within 100 on Number Lines, Part 1

Grade 2 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
	Practice: Add Within 100 on Number Lines, Part 1 Add Within 100 on Number Lines, Part 2 Practice: Add Within 100 on Number Lines
2.NBT.B.6 Demonstrate fluency with addition and subtraction within 100.	Add to Subtract Within 100 on Number Lines, Part 1 Practice: Add to Subtract on Number Lines, Part 1
2.NBT.B.7 Add up to four two-digit numbers.	Practice: Add Within 100 on Number Lines, Part 2* Add up to Four Two-Digit Numbers
2.NBT.B.8 . . . [S]ubtract within 1000, and justify the solution.	Subtract Two-Digit from Three-Digit Numbers Practice: Subtract 2-Digit from 3-Digit Numbers Subtract Three-Digit Numbers Practice: Subtract Three-Digit Numbers Subtract Within 1,000 on Number Lines Practice: Subtract Within 1,000 on Number Lines
2.NBT.B.8 Add . . . within 1000, and justify the solution.	Add Three-Digit and Two-Digit Numbers Practice: Add Three-Digit and Two-Digit Numbers Add Three-Digit Numbers

**This lesson is related to the aligned standard*

Grade 2 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
	Practice: Add Three-Digit Numbers Add Within 1,000 on Number Lines Practice: Add Within 1,000 on Number Lines
2.NBT.B.10 Add or subtract mentally 10 or 100 to or from a given number . . .	Add or Subtract 10 or 100
2.NBT.C.11 . . . [S]olve problems involving . . . subtraction within 100.	Subtract Within 100 on Number Lines Practice: Subtract Within 100 on Number Lines Add to Subtract Within 100 on Number Lines, Part 2 Practice: Add to Subtract on Number Lines, Part 2 Practice: Subtract on Number Lines (Within 100)
2.NBT.C.11 . . . [S]olve problems involving addition . . . within 100.	Add by Breaking Apart Two-Digit Numbers Practice: Add by Breaking Apart Two-Digit Numbers Add Within 100 on Number Lines, Part 1 Practice: Add Within 100 on Number Lines, Part 1 Add Within 100 on Number Lines, Part 2 Practice: Add Within 100 on Number Lines

Grade 2 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
2.NBT.C.11 . . . [S]olve problems involving addition and subtraction . . .	Solve Two-Step Problems
2.NBT.C.11 . . . [S]olve problems involving addition and subtraction within 100.	Add to Subtract Within 100 on Number Lines, Part 1 Practice: Add to Subtract on Number Lines, Part 1
2.RA.A.1 Demonstrate fluency with addition . . . within 20.	Use Mental Math to Add (Make a Ten), Part 1 Use Mental Math to Add (Make a Ten), Part 2 Practice: Use Mental Math to Add (Make a Ten) Use Mental Math to Add (Near Doubles) Use Mental Math Strategies to Add Practice: Use Mental Math Strategies to Add
2.RA.A.1 Demonstrate fluency with addition and subtraction within 20.	Practice: Add Within 10* Think Addition to Subtract Think Addition to Subtract (Make a Ten) Practice: Think Addition to Subtract
2.RA.B.2a Determine if a set of objects has an odd or even number of members. Count by 2s to 100 starting with any even number.	Understand Patterns*
2.RA.B.2b Determine if a set of objects has an odd or even number of members. Express even numbers as pairings/groups of	Understand Patterns*

Missouri Learning Standards for Mathematics	Aligned Lessons
2, and write an expression to represent the number using addends of 2.	
2.RA.B.3 Find the total number of objects arranged in a rectangular array with up to 5 rows and 5 columns, and write an equation to represent the total as a sum of equal addends.	Add Using Arrays
2.GM.A.1a Recognize and draw shapes having specified attributes, such as a given number of angles or sides. Identify triangles, quadrilaterals, pentagons, hexagons . . .	Recognize and Draw Shapes Practice: Recognize Shapes
2.GM.A.1b Recognize and draw shapes having specified attributes, such as a given number of angles or sides. Identify the faces of three-dimensional objects.	Recognize and Draw Shapes Practice: Recognize Shapes
2.GM.A.3a Partition circles and rectangles into . . . three . . . equal shares, and describe the shares and the whole. Demonstrate that equal shares of identical wholes need not have the same shape.	Divide Shapes Into Three Equal Parts
2.GM.A.3a Partition circles and rectangles into two, three or four equal shares, and describe the shares and the whole. Demonstrate that equal shares of identical wholes need not have the same shape.	Divide Shapes Into Two, Three, or Four Equal Parts Practice: Identify Two, Three, or Four Equal Parts
2.GM.B.4 Measure the length of an object by . . . using appropriate tools.	Measure Lengths in Inches Measure Lengths in Centimeters Practice: Measure Lengths
2.GM.B.5 Analyze the results of measuring the same object with different units.	Understand Measurement with Different Units*
2.GM.B.6 . . . [E]stimate lengths using units of inches . . .	Estimate Lengths in Inches

Grade 2 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
2.GM.B.6 Estimate lengths using units of . . . centimeters . . .	Estimate Lengths in Centimeters
2.GM.B.6 Estimate lengths using units of inches . . . [and] centimeters . . .	Practice: Estimate Lengths
2.GM.B.7 Measure to determine how much longer one object is than another.	Compare Lengths
2.GM.C.8 Use addition and subtraction within 100 to solve problems involving lengths that are given in the same units.	Solve Problems Involving Length
2.GM.C.9 Represent whole numbers as lengths on a number line . . .	Understand Number Lines Line plot and measuring length
2.GM.C.9 Represent whole numbers as lengths on a number line, and represent whole-number . . . differences within 100 on a number line.	Understand Subtraction Using Number Lines, Part 1 Practice: Subtraction Using Number Lines, Part 1
2.GM.C.9 Represent whole numbers as lengths on a number line, and represent whole-number sums . . . within 100 on a number line.	Understand Addition Using Number Lines Practice: Addition Using Number Lines Practice: Add Within 100 on Number Lines, Part 2
2.GM.C.9 Represent whole numbers as lengths on a number line, and represent whole-number sums and differences within 100 on a number line.	Understand Subtraction Using Number Lines, Part 2 Practice: Subtraction Using Number Lines, Part 2 Add to Subtract Within 100 on Number Lines, Part 2* Practice: Add to Subtract on Number Lines, Part 2*

**This lesson is related to the aligned standard*

Grade 2 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
2.GM.C.9 [R]epresent whole-number . . . differences within 100 on a number line.	Subtract Within 100 on Number Lines Practice: Subtract Within 100 on Number Lines Add to Subtract Within 100 on Number Lines, Part 1 Practice: Add to Subtract on Number Lines, Part 1 Practice: Subtract on Number Lines (Within 100) Subtract Within 1,000 on Number Lines Practice: Subtract Within 1,000 on Number Lines
2.GM.C.9 [R]epresent whole-number sums . . . within 100 on a number line.	Add Within 100 on Number Lines, Part 2 Add Within 1,000 on Number Lines Practice: Add Within 1,000 on Number Lines
2.DS.A.1 Create a line plot to represent a set of numeric data, given a horizontal scale marked in whole numbers.	Line plot and measuring length*
2.DS.A.2 Generate measurement data to the nearest whole unit, and display the data in a line plot.	Line plot and measuring length

Grade 3

Missouri Learning Standards for Mathematics	Aligned Lessons
3.NBT.A.1 Round whole numbers to the nearest 10 or 100.	Use Place Value to Round Numbers
3.NBT.A.3 Demonstrate fluency with addition and subtraction within 1000.	Practice: Use Place Value to Add Within 1,000 Practice: Use Place Value to Subtract Within 1,000 Add and Subtract Within 1,000 Practice: Add and Subtract Within 1,000. Part 1 Practice: Add and Subtract Within 1,000. Part 2
3.NBT.A.4 Multiply whole numbers by multiples of 10 in the range 10-90.	Multiply by Multiples of 10
3.NF.A.1 Understand a unit fraction as the quantity formed by one part when a whole is partitioned into equal parts.	Understand What a Fraction Is*
3.NF.A.2a Understand that when a whole is partitioned equally, a fraction can be used to represent a portion of the whole. Describe the numerator as representing the number of pieces being considered.	Understand What a Fraction Is*
3.NF.A.3a Represent fractions on a number line. Understand the whole is the interval from 0 to 1.	Understand Fractions on a Number Line
3.NF.A.3b Represent fractions on a number line. Understand the whole is partitioned into equal parts.	Understand Fractions on a Number Line
3.NF.A.3c Represent fractions on a number line. Understand a fraction represents the endpoint of the length a given number of partitions from 0.	Understand Fractions on a Number Line

**This lesson is related to the aligned standard*

Grade 3 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
3.NF.A.4 Demonstrate that two fractions are equivalent if they are the same size, or the same point on a number line.	Find Equivalent Fractions
3.NF.A.5 Recognize and generate equivalent fractions using visual models, and justify why the fractions are equivalent.	Find Equivalent Fractions
3.NF.A.6 Compare two fractions with the same numerator or denominator using the symbols >, = or <, and justify the solution.	Understand Comparing Fractions
3.NF.A.7 Explain why fraction comparisons are only valid when the two fractions refer to the same whole.	Understand Comparing Fractions
3.RA.A.1 Interpret products of whole numbers.	Understand Multiplication, Part 1 Practice: Multiples of 2 Practice: Multiplying by 10 Practice: Multiplying by 5 Understand Multiplication, Part 2 Practice: Multiples of 3 Practice: Multiples of 4 Practice: Multiplying by 0 and 1
3.RA.A.2 Interpret quotients of whole numbers.	Understand Division, Part 2
3.RA.A.3 Describe in words . . . a problem that illustrates a . . . division situation.	Understand Division, Part 1
3.RA.A.3 Describe in words or drawings a problem that illustrates a multiplication or division situation.	Solve One-Step Word Problems Using Multiplication and Division

**This lesson is related to the aligned standard*

Grade 3 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
3.RA.A.4 Use multiplication and division within 100 to solve problems.	Practice: Multiply and Divide Within 100 Solve One-Step Word Problems Using Multiplication and Division Practice: Divide and Multiply (Within 100)
3.RA.A.5 Determine the unknown number in a . . . division equation relating three whole numbers.	Practice: Understand Division
3.RA.B.6 Apply properties of operations as strategies to multiply . . .	Break Apart a Number to Multiply Practice: Multiples of 6 Practice: Multiples of 7 Practice: Multiples of 8 Practice: Multiples of 9
3.RA.B.6 Apply properties of operations as strategies to multiply and divide.	Use Order and Grouping to Multiply Practice: Multiplying by 2, 3, and 4 Practice: Multiples of 5 and 10 Practice: Use Order and Grouping to Multiply Practice: Multiply and Divide Within 100 Practice: Divide and Multiply (Within 100)
3.RA.C.7 . . . [D]ivide with numbers and results within 100 using strategies such as the relationship between multiplication and division . . .	Practice: Understand Division

Grade 3 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
3.RA.C.7 Multiply and divide with numbers and results within 100 using strategies such as the relationship between multiplication and division or properties of operations. Know all products of two one-digit numbers.	Practice: Multiply Within 100* Practice: Multiply and Divide Within 100 Solve One-Step Word Problems Using Multiplication and Division* Practice: Divide and Multiply (Within 100)
3.RA.D.9 . . . [S]olve two-step problems involving variables using any of the four operations.	Solve Two-Step Word Problems Using the Four Operations
3.RA.D.9 Write and solve two-step problems involving variables using any of the four operations.	Solve One-Step Word Problems Using Multiplication and Division*
3.RA.D.10 Interpret the reasonableness of answers using mental computation and estimation strategies including rounding.	Solve Two-Step Word Problems Using the Four Operations*
3.RA.E.11 Identify arithmetic patterns and explain the patterns using properties of operations.	Understand Patterns
3.GM.A.1 Understand that shapes in different categories may share attributes and that the shared attributes can define a larger category.	Understand Categories of Shapes Classify Quadrilaterals
3.GM.A.2 Distinguish rhombuses and rectangles as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to these subcategories.	Understand Categories of Shapes Classify Quadrilaterals
3.GM.A.3 Partition shapes into parts with equal areas, and express the area of each part as a unit fraction of the whole.	Divide Shapes Into Parts with Equal Areas
3.GM.B.4 Tell and write time to the nearest minute.	Tell and Write Time Practice: Tell and Write Time

**This lesson is related to the aligned standard*

Grade 3 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
	Solve Problems About Time
3.GM.B.5 Estimate time intervals in minutes.	Tell and Write Time* Practice: Tell and Write Time*
3.GM.B.6 Solve problems involving addition and subtraction of minutes.	Solve Problems About Time
3.GM.B.7 Measure . . . liquid volume . . . of objects.	Solve Problems About Liquid Volume
3.GM.B.7 Measure or estimate length, liquid volume and weight of objects.	Solve Problems about Mass*
3.GM.B.8 Use the four operations to solve problems involving lengths, liquid volumes or weights given in the same units.	Solve Problems About Liquid Volume* Solve Problems about Mass*
3.GM.C.9 Calculate area by using unit squares to cover a plane figure with no gaps or overlaps.	Understand Area
3.GM.C.10 Label area measurements with squared units.	Understand Area*
3.GM.C.11 Demonstrate that tiling a rectangle to find the area and multiplying the side lengths result in the same value.	Add and Multiply to Find Area
3.GM.C.12 Multiply whole-number side lengths to solve problems involving the area of rectangles.	Add and Multiply to Find Area
3.GM.C.13 Find rectangular arrangements that can be formed for a given area.	Understand Area*
3.GM.C.14 Decompose a rectangle into smaller rectangles to find the area of the original rectangle.	Add and Multiply to Find Area
3.GM.D.15 Solve problems involving perimeters of polygons.	Connect Area and Perimeter
3.GM.D.16 Understand that rectangles can have equal perimeters but different areas, or	Connect Area and Perimeter*

Grade 3 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
rectangles can have equal areas but different perimeters.	
3.DS.A.1 Create . . . scaled . . . bar graphs to represent a data set with several categories.	Draw Scaled Bar Graphs
3.DS.A.1 Create . . . scaled picture graphs . . . to represent a data set with several categories.	Draw Scaled Picture Graphs
3.DS.A.1 Create . . . scaled picture graphs and bar graphs to represent a data set with several categories.	Practice: Draw Scaled Graphs
3.DS.A.2 Solve one- and two-step problems using information presented in bar and/or picture graphs.	Solve Problems Using Scaled Picture Graphs Solve Problems Using Scaled Bar Graphs Practice: Solve Problems Using Scaled Bar Graphs

Grade 4

Missouri Learning Standards for Mathematics	Aligned Lessons
4.NBT.A.1 Round multi-digit whole numbers to any place.	Round Whole Numbers
4.NBT.A.2 Read, write and identify multi-digit whole numbers up to one million using number names, base ten numerals and expanded form.	Practice: Place Value to Thousands* Understand Place Value* Practice: Understand Place Value* Practice: Compare Whole Numbers* Round Whole Numbers
4.NBT.A.4 Understand that in a multi-digit whole number, a digit represents 10 times what it would represents in the place to its right.	Practice: Place Value to Thousands Understand Place Value Practice: Understand Place Value Practice: Compare Whole Numbers Round Whole Numbers
4.NBT.A.5 Demonstrate fluency with . . . subtraction of whole numbers.	Subtract Whole Numbers Practice: Subtract Whole Numbers
4.NBT.A.5 Demonstrate fluency with addition . . . of whole numbers.	Practice: Add Whole Numbers
4.NBT.A.5 Demonstrate fluency with addition . . . whole numbers.	Add Whole Numbers
4.NBT.A.6 Multiply a whole number of up to four digits by a one-digit whole number . . . and justify the solution.	Multiply by One-Digit Numbers, Part 1 Multiply by One-Digit Numbers, Part 2 Practice: Multiply by One-Digit Numbers
4.NBT.A.6 Multiply a whole number of up to four digits by a one-digit whole number	Multiply Two-Digit Numbers by Two-Digit Numbers

**This lesson is related to the aligned standard*

Missouri Learning Standards for Mathematics	Aligned Lessons
and multiply two two-digit numbers, and justify the solution.	Practice: Multiply Two-Digit Numbers
4.NBT.A.7 Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, and justify the solution.	Divide Whole Numbers, Part 1 Divide Whole Numbers, Part 2 Practice: Divide Whole Numbers, Part 1 Practice: Divide Whole Numbers, Part 2
4.NF.A.1 Explain and/or illustrate why two fractions are equivalent.	Equivalent Fractions
4.NF.A.2 Recognize and generate equivalent fractions.	Equivalent Fractions
4.NF.B.4 Understand addition and subtraction of fractions as joining/ composing and separating/decomposing parts referring to the same whole.	Understand Adding and Subtracting Fractions Understand Mixed Numbers*
4.NF.B.5 Decompose a fraction into a sum of fractions with the same denominator and record each decomposition with an equation and justification.	Understand Adding and Subtracting Fractions* Understand Mixed Numbers*
4.NF.B.6 Solve problems involving adding and subtracting fractions and mixed numbers with like denominators.	Understand Adding and Subtracting Fractions Understand Mixed Numbers* Add and Subtract Fractions*
4.NF.B.7 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.	Understand Fraction Multiplication
4.NF.B.8 Solve problems involving multiplication of a fraction by a whole number.	Understand Fraction Multiplication

Grade 4 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
4.NF.C.11 Read, write and identify decimals to the hundredths place using number names, base ten numerals and expanded form.	Read and Write Decimals Compare Decimals
4.RA.A.1 Multiply or divide to solve problems involving a multiplicative comparison.	Understand Multiplication as Comparison Practice: Understand Multiplication as Comparison
4.RA.A.2 Solve multi-step whole number problems involving the four operations and variables and using estimation to interpret the reasonableness of the answer.	Solve Multi-Step Problems
4.RA.A.3 Solve whole number division problems involving variables in which remainders need to be interpreted, and justify the solution.	Divide Whole Numbers, Part 1 Divide Whole Numbers, Part 2 Practice: Divide Whole Numbers, Part 1 Practice: Divide Whole Numbers, Part 2
4.RA.B.4 Recognize that a whole number is a multiple of each of its factors and find the multiples for a given whole number.	Multiples Practice: Multiples, Factors, and Prime Numbers
4.RA.B.5 Determine if a whole number within 100 is composite or prime, and find all factor pairs for whole numbers within 100.	Factors Practice: Multiples, Factors, and Prime Numbers
4.RA.C.6 Generate a number pattern that follows a given rule.	Number and Shape Patterns
4.RA.C.7 Use words or mathematical symbols to express a rule for a given pattern.	Number and Shape Patterns*
4.GM.A.1 . . . [I]dentify . . . angles, perpendicular lines and parallel lines.	Classify Quadrilaterals

**This lesson is related to the aligned standard*

Grade 4 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
4.GM.A.1 Draw and identify . . . angles, perpendicular lines and parallel lines.	Identify Angles
4.GM.A.1 Draw and identify points, lines, line segments, [and] rays . . .	Identify Points, Lines, and Rays
4.GM.A.2 Classify two-dimensional shapes by their sides and/or angles.	Classify Quadrilaterals
4.GM.A.2 Classify two-dimensional [triangular] shapes by their sides and/or angles.	Classify Triangles
4.GM.A.3 Construct lines of symmetry for a two-dimensional figure.	Line Symmetry
4.GM.B.4 . . . [E]stimate angles and their measure.	Measure Angles Practice: Measure Angles
4.GM.B.4 Identify and estimate angles and their measure.	Add and Subtract Angle Measures*
4.GM.B.5 . . . [M]easure angles in whole-number degrees using a protractor.	Measure Angles Practice: Measure Angles
4.GM.C.6a Know relative sizes of measurement units within one system of units. Convert measurements in a larger unit in terms of a smaller unit.	Express Measurements in Larger Units Practice: Convert Metric Units of Length Practice: Convert Customary Units of Length Practice: Convert Metric Units of Mass Practice: Convert Customary Units of Weight Practice: Convert Metric Units of Liquid Volume

**This lesson is related to the aligned standard*

Grade 4 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
	Practice: Convert Customary Units of Liquid Volume Practice: Convert Units of Time
4.GM.C.7 Use the four operations to solve problems involving distances, intervals of time, liquid volume, weight of objects and money.	Solve Word Problems Involving Measurement

Grade 5

Missouri Learning Standards for Mathematics	Aligned Lessons
5.NBT.A.1 Read . . . and identify numbers . . . to thousandths using number names . . . and expanded form.	Read and Write Decimals Compare Decimals
5.NBT.A.3 Understand that in a multi-digit number, a digit represents 1/10 times what it would represents in the place to its left.	Understand Place Value
5.NBT.A.4 Evaluate the value of powers of 10 and understand the relationship to the place value system.	Multiply and Divide Decimals by Powers of Ten*
5.NBT.A.5 Round numbers from billions to thousandths place.	Round decimals* Practice: Round Decimals*
5.NBT.A.6 . . . [S]ubtract multi-digit whole numbers . . .	Subtract Whole Numbers Practice: Subtract Whole Numbers
5.NBT.A.6 Add . . . multi-digit whole numbers . . .	Practice: Add Whole Numbers
5.NBT.A.6 Add and subtract . . . decimals . . .	Add and Subtract Decimals Practice: Add Decimals Practice: Subtract Decimals
5.NBT.A.6 Demonstrate fluency with addition . . . whole numbers.Add . . . multi-digit whole numbers . . .	Add Whole Numbers
5.NBT.A.7 Multiply . . . decimals . . .	Multiply Decimals
5.NBT.A.7 Multiply multi-digit whole numbers . . .	Multiply Whole Numbers Practice: Multiply Whole Numbers
5.NBT.A.8 Divide . . . decimals to the hundredths place . . .	Divide Decimals Practice: Divide Decimals

**This lesson is related to the aligned standard*

Grade 5 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
5.NBT.A.8 Divide multi-digit . . . decimals . . . using up to two-digit divisors and four-digit dividends, and justify the solution.	Divide Whole Numbers
5.NBT.A.8 Divide multi-digit whole numbers and decimals to the hundredths place using up to two-digit divisors and four-digit dividends, and justify the solution.	Multiply and Divide Decimals by Powers of Ten*
5.NF.B.4 Estimate results of sums [and] differences . . . with fractions and decimals to the thousandths.	Add and Subtract Fractions in Word Problems
5.NF.B.4 Estimate results of sums, differences and products with fractions and decimals to the thousandths.	Add and Subtract Fractions* Understand Products of Fractions*
5.NF.B.5b Justify the reasonableness of a product when multiplying with fractions. Explain why multiplying a given number by a fraction greater than 1 results in a product larger than the given number.	Understand Multiplication as Scaling
5.NF.B.5c Justify the reasonableness of a product when multiplying with fractions. Explain why multiplying a given number by a fraction less than 1 results in a product smaller than the given number.	Understand Multiplication as Scaling
5.NF.B.6 Solve problems involving addition and subtraction of fractions and mixed numbers with unlike denominators . . .	Add and Subtract Fractions Add and Subtract Fractions in Word Problems
5.NF.B.7a Extend the concept of multiplication to multiply a fraction or whole number by a fraction. Recognize the relationship between multiplying fractions and finding the areas of rectangles with fractional side lengths.	Multiply Fractions to Find Area

**This lesson is related to the aligned standard*

Grade 5 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
5.NF.B.7b Extend the concept of multiplication to multiply a fraction or whole number by a fraction. Calculate and interpret the product of a fraction by a whole number and a whole number by a fraction.	Understand Multiplication as Scaling
5.NF.B.7c Extend the concept of multiplication to multiply a fraction or whole number by a fraction. Calculate and interpret the product of two fractions less than one.	Understand Multiplication as Scaling
5.NF.B.8a Extend the concept of division to divide unit fractions and whole numbers by using visual fraction models and equations. Calculate and interpret the quotient of a unit fraction by a non-zero whole number.	Understand Division with Unit Fractions
5.RA.A.1a Investigate the relationship between two numeric patterns. Generate two numeric patterns given two rules.	Analyze Patterns and Relationships Practice: Analyze Patterns and Relationships
5.RA.A.1b Investigate the relationship between two numeric patterns. Translate two numeric patterns into two sets of ordered pairs.	Analyze Patterns and Relationships Practice: Analyze Patterns and Relationships
5.RA.A.1c Investigate the relationship between two numeric patterns. Graph numeric patterns on the Cartesian coordinate plane.	Analyze Patterns and Relationships Practice: Analyze Patterns and Relationships
5.RA.A.1d Investigate the relationship between two numeric patterns. Identify the relationship between two numeric patterns.	Analyze Patterns and Relationships Practice: Analyze Patterns and Relationships
5.RA.B.3 Write, evaluate and interpret numeric expressions using the order of operations.	Write and Evaluate Expressions Practice: Interpret and Evaluate Expressions

**This lesson is related to the aligned standard*

Grade 5 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
5.RA.B.4 Translate written expressions into algebraic expressions.	Write and Evaluate Expressions* Practice: Interpret and Evaluate Expressions* Numerical Expressions and Order of Operations* Algebraic Expressions*
5.RA.C.5 Solve and justify multi-step problems involving . . . decimals.	Add and Subtract Decimals Practice: Add Decimals Practice: Subtract Decimals Multiply Decimals Divide Decimals Practice: Divide Decimals
5.RA.C.5 Solve and justify multi-step problems involving . . . whole numbers [and] fractions . . .	Understand Products of Fractions
5.RA.C.5 Solve and justify multi-step problems involving . . . fractions . . .	Add and Subtract Fractions Add and Subtract Fractions in Word Problems
5.GM.A.1 Understand that attributes belonging to a category of figures also belong to all subcategories.	Classify Two-Dimensional Figures
5.GM.A.1 Understand that attributes belonging to a category of [two-dimensional] figures also belong to all subcategories.	Identify Two-Dimensional Figures

**This lesson is related to the aligned standard*

Grade 5 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
5.GM.A.2 Classify figures in a hierarchy based on properties.	Classify Two-Dimensional Figures
5.GM.A.2 Classify [two-dimensional] figures in a hierarchy based on properties.	Identify Two-Dimensional Figures
5.GM.A.3 Analyze and describe the properties of prisms and pyramids.	Nets and Surface Area*
5.GM.B.4a Understand the concept of volume and recognize that volume is measured in cubic units. Describe a cube with edge length 1 unit as a "unit cube" and is said to have "one cubic unit" of volume and can be used to measure volume.	Understand and Measure Volume Practice: Measure Volume
5.GM.B.4b Understand the concept of volume and recognize that volume is measured in cubic units. Understand that the volume of a right rectangular prism can be found by stacking multiple layers of the base.	Measure Volume Using Formulas Practice: Volume of Rectangular Prisms Practice: Volume of Composite Figures
5.GM.B.5 Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for volume of right rectangular prisms with whole-number edge lengths.	Measure Volume Using Formulas Practice: Volume of Rectangular Prisms Practice: Volume of Composite Figures
5.GM.C.6a Define a first quadrant Cartesian coordinate system. Represent the axes as scaled perpendicular number lines that both intersect at 0, the origin.	Understand the Coordinate Plane Analyze Patterns and Relationships* Practice: Analyze Patterns and Relationships*
5.GM.C.6b Define a first quadrant Cartesian coordinate system. Identify any point on the Cartesian coordinate plane by its ordered pair coordinates.	Understand the Coordinate Plane Analyze Patterns and Relationships Practice: Analyze Patterns and Relationships

Grade 5 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
5.GM.C.6c Define a first quadrant Cartesian coordinate system. Define the first number in an ordered pair as the horizontal distance from the origin.	Understand the Coordinate Plane Analyze Patterns and Relationships* Practice: Analyze Patterns and Relationships*
5.GM.C.6d Define a first quadrant Cartesian coordinate system. Define the second number in an ordered pair as the vertical distance from the origin.	Understand the Coordinate Plane Analyze Patterns and Relationships* Practice: Analyze Patterns and Relationships*
5.GM.C.7 Plot and interpret points in the first quadrant of the Cartesian coordinate plane.	Understand the Coordinate Plane Analyze Patterns and Relationships Practice: Analyze Patterns and Relationships
5.GM.D.8 Convert measurements of capacity, length and weight within a given measurement system.	Solve Word Problems Involving Conversions
5.GM.D.9 Solve multi-step problems that require measurement conversions.	Solve Word Problems Involving Conversions
5.DS.A.2 Create a line plot to represent a given or generated data set, and analyze the data to answer questions and solve problems, recognizing the outliers and generating the median.	Fractions on a Line Plot

Grade 6

Missouri Learning Standards for Mathematics	Aligned Lessons
6.RP.A.1 Understand a ratio as a comparison of two quantities and represent these comparisons.	Concept of Ratio
6.RP.A.2 Understand the concept of a unit rate associated with a ratio, and describe the meaning of unit rate.	Concept of Rate
6.RP.A.3a Solve problems involving ratios and rates. Create tables of equivalent ratios, find missing values in the tables and plot the pairs of values on the Cartesian coordinate plane.	Concept of Ratio
6.RP.A.3b Solve problems involving ratios and rates. Solve unit rate problems.	Concept of Rate
6.RP.A.3c Solve problems involving ratios and rates. Solve percent problems.	Concept of Percent Problem Solving with Ratio and Percent
6.NS.A.1a Compute and interpret quotients of positive fractions. Solve problems involving division of fractions by fractions.	Division of Fractions
6.NS.B.2 Demonstrate fluency with division of multi-digit whole numbers.	Divide Whole Numbers
6.NS.B.3 Demonstrate fluency with . . . division of decimals.	Division of Whole Numbers and Decimals Division of Decimals
6.NS.B.3 Demonstrate fluency with . . . multiplication and division of decimals.	Multiplication of Decimals
6.NS.B.3 Demonstrate fluency with addition [and] subtraction . . . of decimals.	Fluently add and subtract decimals
6.NS.B.4a Find common factors and multiples. Find the greatest common factor (GCF) and the least common multiple (LCM).	Prime Factors
6.NS.B.4b Find common factors and multiples. Use the distributive property to	Prime Factors*

Grade 6 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
express a sum of two whole numbers with a common factor as a multiple of a sum of two whole numbers.	
6.NS.C.5 Use positive and negative numbers to represent quantities.	Rational Numbers and Absolute Value
6.NS.C.6a Locate a rational number as a point on the number line. Locate rational numbers on a horizontal or vertical number line.	Rational Numbers and Absolute Value
6.NS.C.6b . . . [E]xplain problems of ordering of rational numbers.	Rational Numbers and Absolute Value
6.NS.C.6c Locate a rational number as a point on the number line. Understand that a number and its opposite (additive inverse) are located on opposite sides of zero on the number line.	Rational Numbers and Absolute Value
6.NS.C.7 Understand that the absolute value of a rational number is its distance from 0 on the number line.	Rational Numbers and Absolute Value
6.NS.C.8 Extend prior knowledge to generate equivalent representations of rational numbers between fractions, decimals and percentages (limited to terminating decimals and/or benchmark fractions of 1/3 and 2/3).	Equivalent Expressions
6.EEI.A.2a Create and evaluate expressions involving variables and whole number exponents. Identify parts of an expression using mathematical terminology.	Numerical Expressions and Order of Operations
6.EEI.A.2b Create and evaluate expressions involving variables and whole number exponents. Evaluate expressions at specific values of the variables.	Algebraic Expressions*
6.EEI.A.2c Create and evaluate expressions involving variables and whole number	Algebraic Expressions*

Grade 6 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
exponents. Evaluate non-negative rational number expressions.	
6.EEI.A.2d Create and evaluate expressions involving variables and whole number exponents. Write and evaluate algebraic expressions.	Algebraic Expressions
6.EEI.A.2e Create and evaluate expressions involving variables and whole number exponents. Understand the meaning of the variable in the context of the situation.	Algebraic Expressions*
6.EEI.A.3 Identify and generate equivalent algebraic expressions using mathematical properties.	Equivalent Expressions
6.EEI.B.4 Use substitution to determine whether a given number in a specified set makes a one-variable equation or inequality true.	Solving Equations Using Equations to Solve Problems* Solving Inequalities
6.EEI.B.5 Understand that if any solutions exist, the solution set for an equation or inequality consists of values that make the equation or inequality true.	Solving Equations* Using Equations to Solve Problems* Solving Inequalities*
6.EEI.B.6 Write and solve equations using variables to represent quantities, and understand the meaning of the variable in the context of the situation.	Algebraic Expressions*
6.EEI.B.7 Solve one-step linear equations in one variable involving non-negative rational numbers.	Using Equations to Solve Problems
SOURCE_MARKUP_FORMAT_ERROR: The entity "ge" was referenced, but not declared.	Solving Inequalities

Grade 6 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
6.EEI.B.8b Recognize that inequalities may have infinitely many solutions. Graph the solution set of an inequality.	Solving Inequalities
6.EEI.C.9a Identify and describe relationships between two variables that change in relationship to one another. Write an equation to express one quantity, the dependent variable, in terms of the other quantity, the independent variable.	Relationships Between Variables in Equations
6.EEI.C.9b Identify and describe relationships between two variables that change in relationship to one another. Analyze the relationship between the dependent and independent variables using graphs, tables and equations and relate these representations to each other.	Relationships Between Variables in Equations
6.GM.A.1 Find the area of polygons . . .	Concepts of Area and Perimeter
6.GM.A.1 Find the area of polygons by composing or decomposing the shapes into rectangles or triangles.	Area of Parallelograms, Quadrilaterals, and Polygons
6.GM.A.2a Find the volume of right rectangular prisms. Understand that the volume of a right rectangular prism can be found by filling the prism with multiple layers of the base.	Volume with Fractional Length
6.GM.A.2b Find the volume of right rectangular prisms. Apply V = l * w * h and V = Bh to find the volume of right rectangular prisms.	Volume with Fractional Length
6.GM.A.3a Solve problems by graphing points in all four quadrants of the Cartesian coordinate plane. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the Cartesian coordinate plane.	Coordinate Plane and Absolute Value

Grade 6 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
6.GM.A.3b Solve problems by graphing points in all four quadrants of the Cartesian coordinate plane. Recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.	Coordinate Plane and Absolute Value
6.GM.A.3c Solve problems by graphing points in all four quadrants of the Cartesian coordinate plane. Find distances between points with the same first coordinate or the same second coordinate.	Coordinate Plane and Absolute Value
6.GM.A.3d Solve problems by graphing points in all four quadrants of the Cartesian coordinate plane. Construct polygons in the Cartesian coordinate plane.	Polygons in the Coordinate Plane
6.GM.A.4a Solve problems using nets. Represent three-dimensional figures using nets made up of rectangles and triangles.	Nets and Surface Area
6.GM.A.4b Solve problems using nets. Use nets to find the surface area of three-dimensional figures whose sides are made up of rectangles and triangles.	Nets and Surface Area
6.DSP.A.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers.	Understanding Statistics
6.DSP.A.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread and overall shape.	Understanding Statistics
6.DSP.A.3 Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary from a single number.	Understand Mean and MAD

Grade 6 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
6.DSP.B.4a Display and interpret data. Use . . . box plots to display and interpret numerical data.	Box Plots
6.DSP.B.4a Display and interpret data. Use . . . histograms . . . to display and interpret numerical data.	Histograms
6.DSP.B.4a Display and interpret data. Use dot plots . . . to display and interpret numerical data.	Dot Plots
6.DSP.B.4a Display and interpret data. Use dot plots, histograms and box plots to display and interpret numerical data.	Choosing Data Displays*
6.DSP.B.5a Summarize numerical data sets in relation to the context. Report the number of observations.	Understand Mean and MAD*
6.DSP.B.5b Summarize numerical data sets in relation to the context. Describe the nature of the attribute under investigation, including how it was measured and its units of measurement.	Choosing Data Displays*
6.DSP.B.5d Summarize numerical data sets in relation to the context. Analyze the choice of measures of center and variability based on the shape of the data distribution and/or the context of the data.	Understand Mean and MAD*

**This lesson is related to the aligned standard*

Grade 7

Missouri Learning Standards for Mathematics	Aligned Lessons
7.RP.A.1 Compute unit rates, including those that involve complex fractions, with like or different units.	Ratios involving Complex Fractions
7.RP.A.2a Recognize and represent proportional relationships between quantities. Determine when two quantities are in a proportional relationship.	Recognizing Proportional Relationships
7.RP.A.2b Recognize and represent proportional relationships between quantities. Identify and/or compute the constant of proportionality (unit rate).	Recognizing Proportional Relationships
7.RP.A.2c Recognize and represent proportional relationships between quantities. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation.	Equations for Proportional Relationships
7.RP.A.2d Recognize and represent proportional relationships between quantities. Recognize that the graph of any proportional relationship will pass through the origin.	Equations for Proportional Relationships
7.RP.A.3 Solve problems involving ratios, rates, percentages and proportional relationships.	Recognizing Proportional Relationships*
7.NS.A.1a Apply and extend previous understandings of numbers to add and subtract rational numbers. Add and subtract rational numbers.	Addition and Subtraction of Rational Numbers
7.NS.A.1b Apply and extend previous understandings of numbers to add and subtract rational numbers. Represent addition and subtraction on a horizontal or vertical number line.	Addition and Subtraction of Positive and Negative Integers* Understanding Adding and Subtracting Positive and Negative Numbers
7.NS.A.1c Apply and extend previous understandings of numbers to add and	Addition and Subtraction of Positive and Negative Integers*

Missouri Learning Standards for Mathematics	Aligned Lessons
subtract rational numbers. Describe situations and show that a number and its opposite have a sum of 0 (additive inverses).	Understanding Adding and Subtracting Positive and Negative Numbers
7.NS.A.1d Apply and extend previous understandings of numbers to add and subtract rational numbers. Understand subtraction of rational numbers as adding the additive inverse.	Addition and Subtraction of Positive and Negative Integers* Understanding Adding and Subtracting Positive and Negative Numbers
7.NS.A.1e Apply and extend previous understandings of numbers to add and subtract rational numbers. Determine the distance between two rational numbers on the number line is the absolute value of their difference.	Addition and Subtraction of Positive and Negative Integers* Understanding Adding and Subtracting Positive and Negative Numbers
7.NS.A.1f Apply and extend previous understandings of numbers to add and subtract rational numbers. Interpret sums and differences of rational numbers.	Addition and Subtraction of Positive and Negative Integers* Understanding Adding and Subtracting Positive and Negative Numbers
7.NS.A.2a Apply and extend previous understandings of numbers to multiply and divide rational numbers . . . [D]ivide rational numbers.	Multiplication and Division of Positive and Negative Integers Multiplication and Division of Rational Numbers
7.NS.A.2c Apply and extend previous understandings of numbers to multiply and divide rational numbers. Understand that every quotient of integers (with non-zero divisor) is a rational number.	Multiplication and Division of Positive and Negative Integers* Multiplication and Division of Rational Numbers*
7.NS.A.2d Apply and extend previous understandings of numbers to multiply and divide rational numbers. Convert a rational number to a decimal.	Expressing Fractions as Decimals
7.NS.A.2e Apply and extend previous understandings of numbers to multiply and	Expressing Fractions as Decimals*

Missouri Learning Standards for Mathematics	Aligned Lessons
divide rational numbers. Understand that all rational numbers can be written as fractions or decimal numbers that terminate or repeat.	
7.NS.A.2f Apply and extend previous understandings of numbers to multiply and divide rational numbers. Interpret products and quotients of rational numbers by describing real-world contexts.	Problem Solving with Rational Numbers*
7.NS.A.3 Solve problems involving the four arithmetic operations with rational numbers.	Problem Solving with Rational Numbers Multiplication and Division of Rational Numbers* Addition and Subtraction of Rational Numbers*
7.EEI.A.1 Apply properties of operations to simplify and to factor linear algebraic expressions with rational coefficients.	Linear Expressions
7.EEI.A.2 Understand how to use equivalent expressions to clarify quantities in a problem.	Linear Expressions*
7.EEI.B.3a Solve multi-step problems posed with rational numbers. Convert between equivalent forms of the same number.	Problem Solving with Rational Numbers* Expressing Fractions as Decimals
7.EEI.B.3b Solve multi-step problems posed with rational numbers. Assess the reasonableness of answers using mental computation and estimation strategies.	Problem Solving with Rational Numbers
7.EEI.B.4a Write and/or solve linear equations and inequalities in one variable. Write and/or solve equations of the form $x + p = q$ and $px = q$ in which p and q are rational numbers.	Using Equations to Solve Problems
7.EEI.B.4b Write and/or solve linear equations and inequalities in one variable. Write and/or solve two-step equations of the	Problem Solving with Equations

Missouri Learning Standards for Mathematics	Aligned Lessons
form px + q = r and p(x + q) = r, where p, q and r are rational numbers, and interpret the meaning of the solution in the context of the problem.	
7.EEI.B.4c Write and/or solve linear equations and inequalities in one variable. Write, solve and/or graph inequalities of the form px + q > r or px + q < r, where p, q and r are rational numbers.	Problem Solving with Inequalities
7.GM.A.1 Solve problems involving scale drawings of real objects and geometric figures, including computing actual lengths and areas from a scale drawing and reproducing the drawing at a different scale.	Scale Drawings
7.GM.A.2a Use a variety of tools to construct geometric shapes. Determine if provided constraints will create a unique triangle through construction.	Construction of Triangles
7.GM.A.3 Describe two-dimensional cross sections of pyramids [and] prisms . . .	Cross-sections of Prism and Pyramids
7.GM.A.4a Understand the concepts of circles. Analyze the relationships among the circumference [and] the area . . . in a circle.	Area and Circumference of a Circle
7.GM.A.4b Understand the concepts of circles. Know and apply the formulas for circumference and area of circles to solve problems.	Area and Circumference of a Circle
7.GM.B.5 Use angle properties to write and solve equations for an unknown angle.	Problem Solving with Angles
7.GM.B.6a Understand the relationship between area, surface area and volume. Find the area of triangles [and] quadrilaterals . . .	Area of Composed Figures
7.GM.B.6b Understand the relationship between area, surface area and volume. Find the . . . surface area of prisms . . .	Surface Area of Composed Figures

Grade 7 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
7.GM.B.6b Understand the relationship between area, surface area and volume. Find the volume . . . of prisms . . .	Volume of Composed Figures
7.DSP.A.1a Understand that statistics can be used to gain information about a population by examining a sample of the population. Understand that a sample is a subset of a population.	Random Samples Making Statistical Inferences*
7.DSP.A.1b Understand that statistics can be used to gain information about a population by examining a sample of the population. Understand that generalizations from a sample are valid only if the sample is representative of the population.	Random Samples Making Statistical Inferences*
7.DSP.A.1c Understand that statistics can be used to gain information about a population by examining a sample of the population. Understand that random sampling is used to produce representative samples and support valid inferences.	Random Samples Making Statistical Inferences
7.DSP.A.2 Use data from multiple samples to draw inferences about a population . . .	Making Statistical Inferences
7.DSP.B.3 Analyze different data distributions using statistical measures.	Using Mean and Mean Absolute Deviation to Compare Data* Using Measures of Center and Variability to Compare Data*
7.DSP.B.4 Compare the numerical measures of center, measures of frequency and measures of variability from two random samples to draw inferences about the population.	Using Mean and Mean Absolute Deviation to Compare Data* Using Measures of Center and Variability to Compare Data*
7.DSP.C.5a Investigate the probability of chance events. Determine probabilities of simple events.	Probability Concepts

**This lesson is related to the aligned standard*

Grade 7 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
7.DSP.C.5b Investigate the probability of chance events. Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring.	Probability Concepts
7.DSP.C.7a Explain possible discrepancies between a developed probability model and observed frequencies. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events.	Probability Models
7.DSP.C.7b Explain possible discrepancies between a developed probability model and observed frequencies. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process.	Experimental Probability
7.DSP.C.8a Find probabilities of compound events using organized lists, tables, tree diagrams and simulations. Represent the sample space of a compound event.	Probability of Compound Events*
7.DSP.C.8b Find probabilities of compound events using organized lists, tables, tree diagrams and simulations. Design and use a simulation to generate frequencies for compound events.	Probability of Compound Events*

Grade 8

Missouri Learning Standards for Mathematics	Aligned Lessons
8.NS.A.1a Explore the real number system. Know the differences between rational and irrational numbers.	Rational and Irrational Numbers
8.NS.A.1b Explore the real number system. Understand that all rational numbers have a decimal expansion that terminates or repeats.	Rational and Irrational Numbers
8.NS.A.1c Explore the real number system. Convert decimals which repeat into fractions and fractions into repeating decimals.	Rational and Irrational Numbers
8.NS.A.1d Explore the real number system. Generate equivalent representations of rational numbers.	Rational and Irrational Numbers
8.NS.A.2 Estimate the value and compare the size of irrational numbers and approximate their locations on a number line.	Rational and Irrational Numbers Approximating Irrational Numbers
8.EEI.A.1 Know and apply the properties of integer exponents to generate equivalent expressions.	Properties of Integer Exponents
8.EEI.A.2a Investigate concepts of square and cube roots. Solve equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number.	Square Roots and Cube Roots
8.EEI.A.2b Investigate concepts of square and cube roots. Evaluate square roots of perfect squares less than or equal to 625 and cube roots of perfect cubes less than or equal to 1000.	Square Roots and Cube Roots
8.EEI.A.2c Investigate concepts of square and cube roots. Recognize that square roots of non-perfect squares are irrational.	Square Roots and Cube Roots
8.EEI.A.3 Express very large and very small quantities in scientific notation and	Operations with Numbers Expressed in Scientific Notation

Missouri Learning Standards for Mathematics	Aligned Lessons
approximate how many times larger one is than the other.	
8.EEI.A.4a Use scientific notation to solve problems. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used.	Operations with Numbers Expressed in Scientific Notation
8.EEI.A.4b Use scientific notation to solve problems. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities.	Operations with Numbers Expressed in Scientific Notation
8.EEI.B.5a Graph proportional relationships. Interpret the unit rate as the slope of the graph.	Representing Proportional Relationships
8.EEI.B.5b Graph proportional relationships. Compare two different proportional relationships.	Representing Proportional Relationships
8.EEI.B.6a Apply concepts of slope and y-intercept to graphs, equations and proportional relationships. Explain why the slope (m) is the same between any two distinct points on a non-vertical line in the Cartesian coordinate plane.	Linear Functions* Linear Equations and Slope
8.EEI.B.6b Apply concepts of slope and y-intercept to graphs, equations and proportional relationships. Derive the equation y = mx for a line through the origin and the equation y = mx + b for a line intercepting the vertical axis at b.	Linear Functions* Linear Equations and Slope
8.EEI.C.7a Solve linear equations and inequalities in one variable . . . [I]dentify linear equations with one solution, infinitely many solutions or no solutions.	Solving Linear Equations
8.EEI.C.7b Solve linear equations and inequalities in one variable. Solve linear	Solving Linear Equations with Rational Coefficients

Missouri Learning Standards for Mathematics	Aligned Lessons
equations and inequalities with rational number coefficients, including equations and inequalities whose solutions require expanding expressions using the distributive property and combining like terms.	Systems of Linear Equations
8.EEI.C.8a Analyze and solve systems of linear equations. Graph systems of linear equations and recognize the intersection as the solution to the system.	Solving Systems of Linear Equations Algebraically*
8.EEI.C.8b Analyze and solve systems of linear equations. Explain why solution(s) to a system of two linear equations in two variables correspond to point(s) of intersection of the graphs.	Systems of Linear Equations Solving Systems of Linear Equations Algebraically*
8.EEI.C.8c Analyze and solve systems of linear equations. Explain why systems of linear equations can have one solution, no solution or infinitely many solutions.	Systems of Linear Equations* Solving Systems of Linear Equations Algebraically*
8.EEI.C.8d Analyze and solve systems of linear equations. Solve systems of two linear equations.	Systems of Linear Equations Solving Systems of Linear Equations Algebraically
8.GM.A.1a Verify experimentally the congruence properties of rigid transformations. Verify that angle measure, betweenness, collinearity and distance are preserved under rigid transformations.	Properties of Translations and Reflections Properties of Rotations
8.GM.A.1b Verify experimentally the congruence properties of rigid transformations. Investigate if orientation is preserved under rigid transformations.	Properties of Translations and Reflections Properties of Rotations
8.GM.A.2a Understand that two-dimensional figures are congruent if a series of rigid transformations can be performed to map the pre-image to the image. Describe a	Properties of Translations and Reflections Properties of Rotations

Missouri Learning Standards for Mathematics	Aligned Lessons
possible sequence of rigid transformations between two congruent figures.	
8.GM.A.3 Describe the effect of dilations, translations, rotations and reflections on two-dimensional figures using coordinates.	Properties of Translations and Reflections Properties of Rotations
8.GM.A.4a Understand that two-dimensional figures are similar if a series of transformations (rotations, reflections, translations and dilations) can be performed to map the pre-image to the image. Describe a possible sequence of transformations between two similar figures.	Properties of Translations and Reflections* Properties of Rotations*
8.GM.A.5a Explore angle relationships and establish informal arguments. Derive the sum of the interior angles of a triangle.	Geometric Properties involving Angles* Angle Sums Properties
8.GM.A.5b Explore angle relationships and establish informal arguments. Explore the relationship between the interior and exterior angles of a triangle.	Geometric Properties involving Angles Angle Sums Properties
8.GM.A.5c Explore angle relationships and establish informal arguments. Construct and explore the angles created when parallel lines are cut by a transversal.	Geometric Properties involving Angles Angle Sums Properties
8.GM.A.5d Explore angle relationships and establish informal arguments. Use the properties of similar figures to solve problems.	Geometric Properties involving Angles* Angle Sums Properties*
8.GM.B.6 . . . [D]emonstrate a proof of the Pythagorean Theorem and its converse.	The Pythagorean Theorem
8.GM.B.7 Use the Pythagorean Theorem to determine unknown side lengths in right triangles in problems in two- and three-dimensional contexts.	The Pythagorean Theorem

Grade 8 (continued)

Missouri Learning Standards for Mathematics	Aligned Lessons
8.GM.B.8 Use the Pythagorean Theorem to find the distance between points in a Cartesian coordinate system.	Applications of the Pythagorean Theorem
8.GM.C.9b Solve problems involving surface area and volume. Understand the concepts of volume and find the volume of pyramids, cones and spheres.	Volume of Cylinders, Cones, and Spheres
8.DSP.A.1 Construct and interpret scatter plots of bivariate measurement data to investigate patterns of association between two quantities.	Scatter Plots
8.DSP.A.2 Generate and use a trend line for bivariate data, and informally assess the fit of the line.	Linear Models
8.DSP.A.3 Interpret the parameters of a linear model of bivariate measurement data to solve problems.	Associations Between Two Categorical Variables*
8.DSP.A.4a Understand the patterns of association in bivariate categorical data displayed in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects.	Associations Between Two Categorical Variables
8.DSP.A.4b Understand the patterns of association in bivariate categorical data displayed in a two-way table. Use relative frequencies calculated for rows or columns to describe possible association between the two variables.	Associations Between Two Categorical Variables
8.F.A.1a Explore the concept of functions. (The use of function notation is not required.) Understand that a function assigns to each input exactly one output.	Concept of a Function
8.F.A.1b Explore the concept of functions. (The use of function notation is not	Concept of a Function

Missouri Learning Standards for Mathematics	Aligned Lessons
required.) Determine if a relation is a function.	
8.F.A.1c Explore the concept of functions. (The use of function notation is not required.) Graph a function.	Using a Graph to Analyze a Functional Relationship*
8.F.A.2 Compare characteristics of two functions each represented in a different way.	Linear Functions, Rate of Change and Initial Value Properties of Functions
8.F.A.3a Investigate the differences between linear and nonlinear functions. Interpret the equation y = mx + b as defining a linear function, whose parameters are the slope (m) and the y-intercept (b).	Linear Functions
8.F.A.3b Investigate the differences between linear and nonlinear functions. Recognize that the graph of a linear function has a constant rate of change.	Linear Functions, Rate of Change and Initial Value*
8.F.A.3c Investigate the differences between linear and nonlinear functions. Give examples of nonlinear functions.	Using a Graph to Analyze a Functional Relationship
8.F.B.4a Use functions to model linear relationships between quantities. Explain the parameters of a linear function based on the context of a problem.	Linear Functions, Rate of Change and Initial Value
8.F.B.4b Use functions to model linear relationships between quantities. Determine the parameters of a linear function.	Linear Functions, Rate of Change and Initial Value
8.F.B.4c Use functions to model linear relationships between quantities. Determine the x-intercept of a linear function.	Linear Functions, Rate of Change and Initial Value
8.F.B.5 Describe the functional relationship between two quantities from a graph or a verbal description.	Using a Graph to Analyze a Functional Relationship