Lesson Learning Quest	Concept/Skill	Common Core Standards	NCTM Standards
Lesson 1: Finding Perimeter Lesson 2: Finding Perimeter Review How can you find the distance around (perimeter) a planned castle?	 Addition facts practice Identify and describe polygons and quadrilaterals Calculate the perimeter of quadrilaterals Determine the appropriate operation to solve a problem Use a ruler to measure to the nearest ¼ inch Performs calculations on a calculator 	Operations and Algebraic Thinking Add and subtract within 20. (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. Measurement and Data Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures. (Grade 3) • Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters. Geometry Reason with shapes and their attributes.	Number and Operations Compute fluently and make reasonable estimates (Pre-K – Grade 2) • Develop fluency with basic number combinations for addition and subtraction (Grades 3 – 5) • Select appropriate methods and tools for computing with whole numbers such as calculators Geometry Analyze characteristics and properties of two-and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships (Grades 3 – 5) • Identify, compare, and analyze attributes of two and three-dimensional shapes and develop vocabulary to describe the attributes Use visualization, spatial reasoning, and geometric modeling to solve problems (Grades 3 – 5)

		 Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories. 	 Build and draw geometric objects Use geometric models to solve problems in measurement Measurement Apply appropriate techniques, tools, and formulas to determine measurements (Grades 3 – 5) Develop strategies for estimating the perimeters, areas, and volumes of irregular shapes Select and apply appropriate standard units (inches) and tools to measure lengths (perimeter)
Lesson 3: Measuring With a Ruler Lesson 4: Measuring With a Ruler Review How can you find distances on a map using a ruler and a map scale?	 Addition facts practice Measure distances on a map using the scale and key Measure with a ruler accurately to the nearest ¼ inch Determine the appropriate operation to solve problems Tournament Time explanation 	Operations and Algebraic Thinking Add and subtract within 20. (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one- digit numbers. Measurement and Data Measure and estimate lengths in standard units. (Grade 2) • Measure the length of an object by selecting and using	Number and Operations Compute fluently and make reasonable estimates (Pre-K – Grade 2) • Develop fluency with basic number combinations for addition and subtraction (Grades 3 – 5) • Use visual models, benchmarks, and equivalent forms to add and subtract commonly used fractions and decimals Understand meanings of operations and how they relate to one another

		annuanista ta ala aviala as inclass	(Crades 2 5)
		appropriate tools such as rulers, yardsticks, meter sticks, and	(Grades 3 – 5) • Identify and use relationships
		measuring tapes.	between operations, such as
			division is the inverse of
			multiplication
			Measurement
			Apply appropriate techniques, tools,
			and formulas to determine
			measurements
			(Grades 3 – 5)
			 Select and apply standard units
			(inches) and tools to measure
			lengths
			Understand measurable attributes of
			objects and the units, systems, and
			processes of measurement
			(Grades 3 – 5)
			 Carry out simple unit
			conversions
			Communication (Pre-K – Grade 5)
			 Communicate mathematical thinking coherently and clearly
			Use the language of
			mathematics to express
			mathematical ideas precisely
Lesson 5:	Addition facts	Operations and Algebraic Thinking	Number and Operations
2-Dimensional Net	practice	Add and subtract within 20.	Compute fluently and make reasonable
to 3-Dimensional	Describe and name	(Grade 2)	estimates
Figure	solid figures	Fluently add and subtract within	(Pre-K – Grade 2)
	Determine the	20 using mental strategies. By	Develop fluency with basic

Camelot Learning Geometry and Measurement

Correlation to The National Council of Teachers of Mathematics and Common Core Standards

Lesson (3:
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2-Dimensional Net to 3-Dimensional Figure Review

How can you recognize if a flat shape can be folded into a solid figure?

number of sides and edges of a solid figure

 Construct threedimensional figures using nets end of Grade 2, know from memory all sums of two onedigit numbers.

Geometry

Reason with shapes and their attributes.

(Grade 3)

 Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

(Grade 2)

 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

(Grade 1)

• Compose two-dimensional

number combinations for addition and subtraction

Geometry

Analyze characteristics and properties of two-and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships (Grades 3 – 5)

- Identify, compare, and analyze attributes of two and threedimensional shapes and develop vocabulary to describe the attributes
- Classify two and threedimensional shapes according to their properties

Use visualization, spatial reasoning, and geometric modeling to solve problems

(Grades 3 - 5)

- Build and draw geometric objects
- Identify and build a threedimensional object from twodimensional representations of that object
- Identify a two-dimensional representation of a threedimensional object (nets)

Lesson 7: Movement of a Figure or Object Lesson 8: Movement of a Figure or Object Review How can you	 Multiplication facts practice Recognize and describe transformations Identify and describe polygons Collect data on a frequency table 	shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. Operations and Algebraic Thinking Multiply and divide within 100. (Grade 3) Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties	Number and Operations Compute fluently and make reasonable estimates (Grades 3 – 5) • Develop fluency with basic number combinations for multiplication and division and use these combinations to mentally compute related problems, such as 30 x 50
How can you describe the movement of a		knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit	mentally compute related problems, such as 30 x 50 Geometry Analyze characteristics and properties
shape or object?		numbers. Geometry	of two-and three-dimensional geometric shapes and develop
		Reason with shapes and their	mathematical arguments about
		attributes.	geometric relationships
		(Grade 2)	(Grades 3 – 5)
		Recognize and draw shapes having appointed attributes, such	Identify, compare, and analyze attributes of two and three
		having specified attributes, such as a given number of angles or	attributes of two and three- dimensional shapes and
		a given number of equal faces.	develop vocabulary to describe

11 27 (2 1 1 1 2 2	1 4 4 9 4
Identify triangles, quadrilaterals,	the attributes
pentagons, hexagons, and	Specify locations and describe spatial
cubes.	relationships using coordinate
(Grade 1)	geometry and other representational
Compose two-dimensional	systems
shapes (rectangles, squares,	(Grades 3 – 5)
trapezoids, triangles, half-	Describe location and
circles, and quarter-circles) or	movements using common
three-dimensional shapes	language and geometric
(cubes, right rectangular prisms,	vocabulary
right circular cones, and right	Apply transformations and use
circular cylinders) to create a	symmetry to analyze mathematical
composite shape, and compose	situations
new shapes from the composite	(Grades 3 – 5)
shape.	Predict the results of sliding,
	flipping, and turning two-
	dimensional shapes (pattern
	blocks)
	Use visualization, spatial reasoning,
	and geometric modeling to solve
	problems
	(Grades 3 - 5)
	Build and draw geometric
	objects
	Data Analysis and Probability
	Formulate questions that can be
	addressed with data and collect,
	organize, and display relevant data to
	answer them
	(Grades 3 - 5)
	 Collect and represent data using

			tables and graphs Communication (Pre-K – Grade 5) Communicate mathematical thinking coherently and clearly Use the language of mathematics to express mathematical ideas precisely
Lesson 9: Tangram Transformations Lesson 10: Tangram Transformations Review How can you create a new shape by combining shapes?	 Addition facts practice Identify and name polygons Determine congruent figures Recognize transformations (translations, reflections, and rotations) 	Operations and Algebraic Thinking Add and subtract within 20. (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two onedigit numbers. Geometry Reason with shapes and their attributes. (Grade 2) • Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. (Grade 1) • Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-	Number and Operations Compute fluently and make reasonable estimates (Pre-K – Grade 2) • Develop fluency with basic number combinations for addition and subtraction Geometry Analyze characteristics and properties of two-and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships (Grades 3 – 5) • Identify, compare, and analyze attributes of two and three-dimensional shapes and develop vocabulary to describe the attributes • Investigate, describe, and reason about the results of combining and transforming shapes (tangrams)

		circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. Analyze, compare, create and compose shapes. (Kindergarten) Compose simple shapes to form larger shapes.	Specify locations and describe spatial relationships using coordinate geometry and other representational systems (Grades 3 – 5) • Describe location and movement using common language and geometric vocabulary Apply transformations and use symmetry to analyze mathematical situations (Grades 3 – 5) • Predict and describe the results of sliding, flipping, and turning two-dimensional shapes
Lesson 11: Benchmarks to	 Subtraction facts practice 	Operations and Algebraic Thinking Add and subtract within 20.	Number and Operations Compute fluently and make reasonable
Measure Lengths	Estimate lengths Identify agriculant	(Grade 2)Fluently add and subtract within	estimates (Pre-K – Grade 2)
Lesson 12:	 Identify equivalent units of 	20 using mental strategies. By	Develop fluency with basic
Benchmarks to	measurement	end of Grade 2, know from	number combinations for
Measure Lengths Review	(conversions)	memory all sums of two one- digit numbers.	addition and subtraction Measurement
INCOICW	 Use a ruler to measure in inches 	Measurement and Data	Understand measurable attributes of
How can you use	illeasure ill illolles	Measure and estimate lengths in	objects and the units, systems, and
familiar benchmarks		standard units.	processes of measurement
to estimate sizes?		(Grade 2)	(Pre-K – Grade 2)
		 Measure the length of an object 	 Understand how to measure

		appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. • Estimate lengths using units of inches, feet, centimeters, and meters.	units (Grades 3 – 5) Carry out simple conversions within a system of measurement Apply appropriate techniques, tools, and formulas to determine measurements (Pre-K – Grade 2) Use repetition of a single unit to measure something larger than the unit Use tools to measure Develop common referents for measures to make comparisons and estimates
Lesson 13: Calculating the Area	 Addition facts practice 	Operations and Algebraic Thinking Add and subtract within 20.	Number and Operations Compute fluently and make reasonable
of a Rectangle	Reviews basic multiplication facts	(Grade 2) • Fluently add and subtract within	estimates (Pre-K – Grade 2)
Lesson 14:	multiplication factsFinding sums of	20 using mental strategies. By	Develop fluency with basic
Calculating the Area of a Rectangle	basic fraction	end of Grade 2, know from memory all sums of two one-	number combinations for addition and subtraction
Review	 Identify and name quadrilaterals 	digit numbers.	(Grades 3 – 5)
How can you quickly	Calculate the area of	Measurement and Data Geometric measurement: understand	 Use visual models and equivalent forms to add
figure out the	quadrilaterals Determine which	concepts of area and relate area to	commonly used fractions
number of tiles you need to fill an area?	operations to use	multiplication and to addition. (Grade 3)	Geometry Analyze characteristics and properties
	when solving problems	Recognize area as an attribute	of two-and three-dimensional
	Tournament Time	of plane figures and understand	geometric shapes and develop

Lesson 15:	Subtraction facts	concepts of area measurement. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area. • Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units). • Relate area to the operations of multiplication and addition. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. • Relate area to the operations of multiplication and addition. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. Operations and Algebraic Thinking	mathematical arguments about geometric relationships (Grades 3 – 5) • Identify, compare, and analyze attributes of two and three-dimensional shapes and develop vocabulary to describe the attributes Measurement Apply appropriate techniques, tools, and formulas to determine measurements (Grades 3 – 5) • Select and apply appropriate standard units and tools to measure length and area • Develop, understand, and use formulas to find the area of rectangles Communication (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely Number and Operations
Congruent Figures Lesson 16:	Subtraction facts practice Identify and name	Add and subtract within 20. (Grade 2)	Compute fluently and make reasonable estimates (Pre-K – Grade 2)

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Congruent Figures	
Review	

How can you create congruent shapes with tangram pieces?

polygons

- Recognize transformations
- Determine congruent figures
- Determine similar figures
- Use problem solving strategies
- Tournament Time explanation

 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two onedigit numbers.

Geometry

Reason with shapes and their attributes.

(Grade 2)

 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

(Grade 1)

 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, halfcircles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

Analyze, compare, create and compose shapes. (Kindergarten)

 Develop fluency with basic number combinations for addition and subtraction

Geometry

Analyze characteristics and properties of two-and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships (Grades 3 – 5)

- Identify, compare, and analyze attributes of two and threedimensional shapes and develop vocabulary to describe the attributes
- Investigate, describe, and reason about the results of combining and transforming shapes (tangrams)

Specify locations and describe spatial relationships using coordinate geometry and other representational systems

(Grades 3-5)

 Describe location and movement using common language and geometric vocabulary

Apply transformations and use symmetry to analyze mathematical situations

		- Company simple shapes to form	(Grades 3 – 5)
		Compose simple shapes to form larger shapes.	 Predict and describe the results of sliding, flipping, and turning two-dimensional shapes Explore congruence and similarity
			Problem Solving (Pre-K – Grade 5)
			 Build new knowledge through problem solving
			Communication (Pre-K – Grade 5)
			Communicate mathematical thinking coherently and clearly
			Use the language of
			mathematics to express
1	0.1100	Constitution and Alexander's Third in	mathematical ideas precisely
Lesson 17:	Addition facts	Operations and Algebraic Thinking Add and subtract within 20.	Number and Operations
Regular Polygons	practice • Describe and name	(Grade 2)	Compute fluently and make reasonable estimates
Lesson 18:	regular polygons	Fluently add and subtract within	(Pre-K – Grade 2)
Regular Polygons	Determine	20 using mental strategies. By	Develop fluency with basic
Review	equilateral figures	end of Grade 2, know from	number combinations for
	Use problem solving	memory all sums of two one-	addition and subtraction
Why are regular	strategies	digit numbers.	Geometry
polygons special?	 Tournament Time 	Geometry	Analyze characteristics and properties of two-and three-dimensional
	explanation	Reason with shapes and their attributes.	geometric shapes and develop
		(Grade 3)	mathematical arguments about
		Understand that shapes in	geometric relationships
		different categories (e.g.,	(Grades 3 – 5)
		rhombuses, rectangles, and	Identify, compare, and analyze

others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

(Grade 2)

 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

(Grade 1)

 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, halfcircles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

- attributes of two and threedimensional shapes and develop vocabulary to describe the attributes
- Classify two and threedimensional shapes according to their properties

Use visualization, spatial reasoning, and geometric modeling to solve problems

(Grades 3 - 5)

 Build and draw geometric objects

Measurement

Apply appropriate techniques, tools, and formulas to determine measurements

(Grades 3 - 5)

 Select and apply appropriate standard units and tools to measure length

Communication (Pre-K – Grade 5)

- Communicate mathematical thinking coherently and clearly
- Use the language of mathematics to express mathematical ideas precisely

Lesson 19: Perimeter in Metric Units Lesson 20: Perimeter in Metric Units Review What are the perimeters of tangram pieces?	 Addition facts practice Use a ruler to measure to the nearest millimeter Identify equivalent units of measurement Calculate perimeter of polygons Use mental math strategies to solve problems Determine which operation will solve a problem 	Analyze, compare, create and compose shapes. (Kindergarten) Compose simple shapes to form larger shapes. Operations and Algebraic Thinking Add and subtract within 20. (Grade 2) Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two onedigit numbers. Measurement and Data Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures. (Grade 3) Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and	Number and Operations Compute fluently and make reasonable estimates (Pre-K – Grade 2) • Develop fluency with basic number combinations for addition and subtraction • Select appropriate methods and tools for computing with whole numbers (mental computation) Measurement Understand measurable attributes of objects and the units, systems, and processes of measurement (Grades 3 – 5) • Carry out simple unit conversions within a system of measurement Apply appropriate techniques, tools, and formulas to determine measurements (Grades 3 - 5) • Select and apply appropriate
		·	Select and apply appropriate standard units and tools to measure length

		 (Grade 2) Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. Estimate lengths using units of inches, feet, centimeters, and meters. 	Develop strategies for calculating perimeters of regular and irregular shapes
Lesson 21: Looking at Area as a Pattern Lesson 22: Looking at Area as a Pattern Review Do all polygons with the same area look the same?	 Multiplication facts practice Identify factors and multiples Calculate area of quadrilaterals Calculate perimeter of quadrilaterals Determine which operation to use when solving a problem Use problem solving strategies 	 Operations and Algebraic Thinking Multiply and divide within 100. (Grade 3) Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. Measurement and Data Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. (Grade 4) 	Number and Operations Compute fluently and make reasonable estimates (Grades 3 – 5) • Develop fluency with basic number combinations for multiplication and division and use these combinations to mentally compute related problems, such as 30 x 50 • Use factors and multiples to solve problems Geometry Use visualization, spatial reasoning, and geometric modeling to solve problems (Grades 3 - 5) • Build and draw geometric
		 Apply the area and perimeter formulas for rectangles in real world and mathematical 	objects Measurement Apply appropriate techniques, tools,

	s to determine
Geometric measurement: understand measurement	
concepts of area and relate area to (Grades 3 - 5	,
	t and apply appropriate
(Grade 3) standa	ard units and tools to
	ure length and area
	op, understand, and use
	las to find the area of
A square with side length 1 unit, rectan	
	op strategies for
. "	ating perimeters of regular
	· · · · · · · · · · · · · · · · · · ·
and in	regular shapes
	measurable attributes of
	the units, systems, and
	f measurement ->
square in, square ft, and (Grades 3 – 5	,
	re what happens to
ļ	urements of a two-
	sional shape such as its
the area of a rectangle with perime	eter and area when the
whole-number side lengths by shape	is changed in some way
tiling it, and show that the area Problem Sol	lving (Pre-K – Grade 5)
	and adapt a variety of
	priate strategies to solve
Relate area to the operations of proble	
multiplication and addition.	
Multiply side lengths to find	
areas of rectangles with whole-	
number side lengths in the	
context of solving real world and	
mathematical problems, and	

(Grade 4) measure the size of angles	Lesson 23: Line Language Lesson 24: Line Language Review Can you name that line and angle?	 Multiplication facts practice Identify and describe angles Identify and describe parallel, intersecting, and perpendicular lines Measure angles with a protractor Use problem solving strategies Tournament Time explanation 	represent whole-number products as rectangular areas in mathematical reasoning. • Relate area to the operations of multiplication and addition. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a × b and a × c. Use area models to represent the distributive property in mathematical reasoning. Operations and Algebraic Thinking Multiply and divide within 100. (Grade 3) • Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. Geometry Draw and identify lines and angles, and classify shapes by properties of their lines and angles. (Crade 4)	Number and Operations Compute fluently and make reasonable estimates (Grades 3 – 5) • Develop fluency with basic number combinations for multiplication and division and use these combinations to mentally compute related problems, such as 30 x 50 Measurement Apply appropriate techniques, tools, and formulas to determine measurements (Grades 3 - 5) • Select and apply appropriate standard units and tools to
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		 Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. Measurement and Data Geometric measurement: understand concepts of angle and measure angles. (Grade 4) Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. An angle that turns through n one-degree angles is said to have an angle measure of n degrees. Measure angles in wholenumber degrees using a protractor. Sketch angles of specified measure. 	Geometry Specify locations and describe spatial relationships using coordinate geometry and other representational systems (Grades 3 – 5) • Describe location using geometric vocabulary Problem Solving (Pre-K – Grade 5) • Solve problems that arise in mathematics and in other contexts (map) Communication (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 25:	Addition facts	Operations and Algebraic Thinking	Number and Operations
Measuring Angles With a Protractor	practice	Add and subtract within 20. (Grade 2)	Compute fluently and make reasonable estimates
vviara i rollacioi	 Identify and describe angles 	Fluently add and subtract within	(Pre-K – Grade 2)
	Construct and	20 using mental strategies. By	Develop fluency with basic
Lesson 26:	measure angles with	end of Grade 2, know from	number combinations for
Measuring Angles	a protractor	memory all sums of two one-	addition and subtraction
With a Protractor	a protituotor		

Review		digit numbers. Geometry Draw and identify lines and angles, and	Measurement Apply appropriate techniques, tools, and formulas to determine
How can you use a protractor to measure an angle?		classify shapes by properties of their lines and angles. (Grade 4) • Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. Measurement and Data Geometric measurement: understand concepts of angle and measure angles. (Grade 4) • Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. An angle that turns through n one-degree angles is said to have an angle measure of n degrees. • Measure angles in wholenumber degrees using a protractor. Sketch angles of specified measure.	measurements (Grades 3 – 5) • Select and apply appropriate standard units and tools to measure the size of angles Geometry Use visualization, spatial reasoning, and geometric modeling to solve problems (Grades 3 - 5) • Draw geometric objects with specified properties such as lengths or angle measures
Lesson 27: Two and Three	Multiplication facts	Operations and Algebraic Thinking Multiply and divide within 100.	Number and Operations Compute fluently and make reasonable

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Dimensional Shapes

Lesson 28:

Two and Three Dimensional Shapes Review

What shapes make up familiar three dimensional shapes?

practice

- Identify and describe solid figures
- Determine the number of sides and edges of a solid figure
- Construct threedimensional figures using nets
- Tournament Time explanation

(Grade 3)

Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Geometry

Reason with shapes and their attributes.

(Grade 2)

 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

(Grade 1)

 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, halfcircles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a estimates

(Grades 3-5)

 Develop fluency with basic number combinations for multiplication and division and use these combinations to mentally compute related problems, such as 30 x 50

Geometry

Analyze characteristics and properties of two-and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships (Grades 3 – 5)

- Identify, compare, and analyze attributes of two and threedimensional shapes and develop vocabulary to describe the attributes
- Classify two and threedimensional shapes according to their properties

Use visualization, spatial reasoning, and geometric modeling to solve problems

(Grades 3-5)

- Build and draw geometric objects
- · Identify and build a three-

		composite shape, and compose new shapes from the composite shape. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). (Kindergarten) • Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid"). Analyze, compare, create, and compose shapes. (Kindergarten) • Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).	dimensional object from two- dimensional representations of that object • Identify a two-dimensional representation of a three- dimensional object (nets) Communication (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 29: Transformations	Subtraction facts practiceRecognize	Operations and Algebraic Thinking Add and subtract within 20. (Grade 2)	Number and Operations Compute fluently and make reasonable estimates
Lesson 30: Transformations	transformations	Fluently add and subtract within	(Pre-K – Grade 2) • Develop fluency with basic
Review	(slides and flips) • Use transformations	20 using mental strategies. By end of Grade 2, know from memory all sums of two one-	number combinations for addition and subtraction

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\//bat daga = = :=:=t=	of figures to see to	digit numbers	Coomotine
What does a picture look like in a mirror?	of figures to create mirror images Use problem solving strategies Tournament Time explanation	digit numbers. Geometry Reason with shapes and their attributes. (Grade 2) • Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. (Grade 1) • Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.	Geometry Analyze characteristics and properties of two-and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships (Grades 3 – 5) • Identify, compare, and analyze attributes of two and three-dimensional shapes and develop vocabulary to describe the attributes • Investigate, describe, and reason about the results of combining and transforming shapes (tangrams) • Investigate, describe, and reason about the results of combining and transforming shapes (tangrams) • Explore congruence and similarity Specify locations and describe spatial relationships using coordinate geometry and other representational systems (Grades 3 – 5) • Describe location and movement using common language and geometric

			vocabulary Apply transformations and use symmetry to analyze mathematical situations (Grades 3 – 5) • Predict and describe the results of sliding, flipping, and turning two-dimensional shapes Problem Solving (Pre-K – Grade 5) • Apply and adapt a variety of appropriate strategies to solve problems Communication (Pre-K – Grade 5) • Communicate mathematical thinking coherently and clearly • Use the language of mathematics to express mathematical ideas precisely
Lesson 31: Estimate and Compare Weights Lesson 32: Estimate and Compare Weights Review How much does a	 Basic facts practice Estimate weight Determine equivalent units of measurement Use problem solving strategies 	Operations and Algebraic Thinking Multiply and divide within 100. (Grade 3) ■ Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of	Number and Operations Compute fluently and make reasonable estimates (Pre-K – Grade 2) • Develop fluency with basic number combinations for addition and subtraction (Grades 3 – 5) • Develop fluency with basic number combinations for

Camelot Learning Geometry and Measurement

Correlation to The National Council of Teachers of Mathematics and Common Core Standards

	T		
knight weigh when		Grade 3, know from memory all	multiplication and division and
he is fully armed?		products of two one-digit	use these combinations to
		numbers.	mentally compute related
		Add and subtract within 20.	problems, such as 30 x 50
		(Grade 2)	Measurement
		 Fluently add and subtract within 	Apply appropriate techniques, tools,
		20 using mental strategies. By	and formulas to determine
		end of Grade 2, know from	measurements
		memory all sums of two one-	(Grades 3 – 5)
		digit numbers.	 Select and use benchmarks to
		Measurement and Data	estimate measurements
		Solve problems involving measurement	(weight)
		and conversion of measurements from	(Pre-K – Grade 2)
		a larger unit to a smaller unit.	Develop common referents for
		(Grade 4)	measures to make comparisons
		Know relative sizes of	and estimates
		measurement units within one	Understand measurable attributes of
		system of units including km, m,	objects and the units, systems, and
		cm; kg, g; lb, oz.; l, ml; hr, min,	processes of measurement
		sec.	(Grades 3 – 5)
		Describe and compare measurable	Understand such attributes as
		attributes.	weight and select he appropriate
		(Kindergarten)	type of unit for measuring
		Describe measurable attributes	,
			Carry out simple conversions within a system (system and) of
		of objects, such as length or	within a system (customary) of
		weight. Describe several	measurement
		measurable attributes of a single	Problem Solving (Pre-K- Grade 5)
		object.	 Apply and adapt a variety of
			appropriate strategies to solve
			problems

Camelot Learning Geometry and Measurement

Correlation to The National Council of Teachers of Mathematics and Common Core Standards

Lesson	33:
Congrue	ency

Lesson 34:

Congruency Review

How can you create congruent shapes with tangram puzzles?

- Subtraction facts practice
- Identify and describe polygons
- Recognize and use translations and reflections
- Determine congruent figures
- Use problem solving strategies

Operations and Algebraic Thinking Add and subtract within 20.

(Grade 2)

 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two onedigit numbers.

Geometry

Reason with shapes and their attributes.

(Grade 2)

 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

(Grade 1)

 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, halfcircles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

Number and Operations

Compute fluently and make reasonable estimates

(Pre-K – Grade 2)

 Develop fluency with basic number combinations for addition and subtraction

Geometry

Analyze characteristics and properties of two-and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships (Grades 3 – 5)

- Identify, compare, and analyze attributes of two and threedimensional shapes and develop vocabulary to describe the attributes
- Classify two and threedimensional shapes according to their properties
- Investigate, describe, and reason about the results of combining and transforming shapes (tangrams)

Use visualization, spatial reasoning, and geometric modeling to solve problems

(Grades 3 - 5)

			 Build and draw geometric objects Apply transformations and use symmetry to analyze mathematical situations (Grades 3 – 5) Predict and describe the results of sliding, flipping, and turning two-dimensional shapes Describe a motion or a series of motions that will show that two shapes are congruent Identify and describe line and rotational symmetry in two- and three-dimensional shapes and designs Problem Solving (Pre-K – Grade 5) Apply and adapt a variety of appropriate strategies to solve
Loccon 25.	Cubtraction facts	Operations and Algebraia Thinking	problems
Lesson 35: Symmetry Lesson 36: Symmetry Review How can you find the number of lines of symmetry in a figure?	 Subtraction facts practice Identify lines of symmetry Describe symmetry Determine congruent figures Tournament Time explanation 	Operations and Algebraic Thinking Add and subtract within 20. (Grade 2) • Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one- digit numbers. Geometry Draw and identify lines and angles, and	Number and Operations Compute fluently and make reasonable estimates (Pre-K – Grade 2) • Develop fluency with basic number combinations for addition and subtraction Geometry Apply transformations and use symmetry to analyze mathematical

		classify shapes by properties of their lines and angles. (Grade 4) • Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.	 situations (Grades 3 – 5) Predict and describe the results of sliding, flipping, and turning two-dimensional shapes Describe a motion or a series of motions that will show that two shapes are congruent Identify and describe line and rotational symmetry in two- and three-dimensional shapes and designs Communication (Pre-K – Grade 5) Communicate mathematical thinking coherently and clearly Use the language of mathematics to express mathematical ideas precisely
Lesson 37: Tessellations Lesson 38: Tessellations Review How can you cover an area without any	 Multiplication facts practice Identify and describe polygons Determine equilateral figures Recognize and use transformations 	 Operations and Algebraic Thinking Multiply and divide within 100. (Grade 3) Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5 = 40, one knows 40 ÷ 5 = 8) or properties 	Number and Operations Compute fluently and make reasonable estimates (Grades 3 – 5) • Develop fluency with basic number combinations for multiplication and division and use these combinations to mentally compute related
spaces or openings (tessellate) with equilateral	Identifies and describes symmetryCreate tessellationsUse problem solving	of operations. By the end of Grade 3, know from memory all products of two one-digit	problems, such as 30 x 50 Geometry Analyze characteristics and properties

polygons?	strategies • Tournament Time explanation	Reason with shapes and their attributes. (Grade 2) Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. (Grade 1) Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.	of two-and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships (Grades 3 – 5) • Identify, compare, and analyze attributes of two and three-dimensional shapes and develop vocabulary to describe the attributes • Classify two and three-dimensional shapes according to their properties • Investigate, describe, and reason about the results of combining and transforming shapes (pattern blocks) Use visualization, spatial reasoning, and geometric modeling to solve problems (Grades 3 – 5) • Build and draw geometric objects Apply transformations and use symmetry to analyze mathematical situations (Grades 3 – 5) • Predict and describe the results of sliding, flipping, and turning two-dimensional shapes
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			 Describe a motion or a series of motions that will show that two shapes are congruent Identify and describe line and rotational symmetry in two- and three-dimensional shapes and designs Problem Solving (Pre-K – Grade 5) Apply and adapt a variety of appropriate strategies to solve problems Communication (Pre-K – Grade 5) Communicate mathematical thinking coherently and clearly Use the language of mathematics to express mathematical ideas precisely
Lesson 39:	 Addition facts 	Operations and Algebraic Thinking	Number and Operations
Telling Time and	practice	Add and subtract within 20.	Compute fluently and make reasonable estimates
Elapsed Time	 Use number sense to determine 	(Grade 2)Fluently add and subtract within	(Pre-K – Grade 2)
Lesson 40:	elapsed time	20 using mental strategies. By	Develop fluency with basic
Telling Time and	 Tell time to the 	end of Grade 2, know from	number combinations for
Elapsed Time	nearest hour, half	memory all sums of two one-	addition and subtraction
Review	hour, and minute	digit numbers. Measurement and Data	Use a variety of methods and
How can you use		Solve problems involving measurement	tools to compute, including objects, mental computation,
your knowledge of		and estimation of intervals of time,	estimation, and paper and pencil
minutes and hours		liquid volumes, and masses of objects.	Measurement
to determine a		(Grade 3)	Apply appropriate techniques, tools,

representing the problem on a number line diagram.	futi	ure or past time?	•		 and formulas to determine measurements (Grades 3 – 5) Select and apply appropriate standard units and tools to measure time
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