Camelot Learning Mathematics Program
Geometry and Measurement
Correlation to the Connecticut Public Schools' Content Standards

Lesson # and Quest	Framework Code	Content Standard and Component Statement	Performance Standard	Performance Expectations
Lessons 1, 2 How can you find the distance around (perimeter) a planned castle?	**2:2.2a(1)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction.	**(1)** Recall basic addition and subtraction facts.
	3:3.1a(1&2)	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	**a.** Classify and compare polygons and solids using various attributes.	**(1)** Sort polygons and solids through using characteristics such as the relationship of sides (parallel, perpendicular), kinds of angles (acute, right and obtuse), symmetry and congruence. **(2)** Describe similarities and differences of two- and three-dimensional shapes in the environment using physical features such as number of sides, number of angles, lengths of sides and straight and curved parts.
	3:3.3b(1&2)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**b.** Determine and use different tools and units appropriate for specific measurement tasks.	**(1)** Develop and explain strategies for using nonstandard and standard referents to estimate measurements of length, area, weight, temperature, volume and capacity. **(2)** Explore strategies for estimating and measuring the

				perimeters, areas and volumes of irregular shapes and solids.
	4:3.3a(2)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**a.** Recognize that patterns exist between measurements of length, perimeter and area of squares and rectangles.	**(2)** Solve practical problems that involve estimation and measurement of length, perimeter, area, volume, capacity, weight and temperature.
Lessons 3, 4 How can you find distances on a map using a ruler and a map scale?	**2:2.2a(1)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction.	**(1)** Recall basic addition and subtraction facts.
	3:3.2a(1)	**3.2 Geometry and Measurement:** Use spatial reasoning, location and geometric relationships to solve problems.	**a.** Represent location on simple maps.	**(1)** Draw and interpret simple maps using coordinate systems and shapes or pictures.
	4:2.2b(1)	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**b.** Use number patterns, basic facts, rectangular arrays, place value models and the distributive property to multiply and divide.	**(1)** Develop fluency with multiplication and division fact families for all factors 1 through 10.
	4:3.3a(2)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**a.** Recognize that patterns exist between measurements of length, perimeter and area of squares and rectangles.	**(2)** Solve practical problems that involve estimation and measurement of length, perimeter, area, volume, capacity, weight and temperature.
	4:3.3b(1&4))	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to	**b.** Make precise measurements and use benchmarks to estimate measures.	**(1)** Identify and use the appropriate customary and metric units and tools for

		estimate and measure.		measuring length, perimeter, area, weight, time, temperature, volume and capacity. **(4)** Estimate, draw and measure length to the nearest inch, half-inch and centimeter.
Lessons 5, 6 How can you recognize if a flat shape can be folded into a solid figure?	**2:2.2a(1)** **4:3.1a(1)** **5:3.2a(1)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities. **3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems. **3.2 Geometry and Measurement:** Use spatial reasoning, location and geometric relationships to solve problems.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction. **a.** Describe geometric properties of polygons and solids. **a.** Identify, describe and build nets for solid figures and objects.	**(1)** Recall basic addition and subtraction facts. **(1)** Build, draw, describe and classify two- and three-dimensional figures. **(1)** Represent the surface of three-dimensional objects through the use of two-dimensional nets.
Lessons 7, 8 How can you describe the movement of a shape or object?	**2:2.2a(1)** **4:3.1a(1&3)**	**2.2** Numerical and Proportional Reasoning: Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities. **3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction. **a.** Describe geometric properties of polygons and solids.	**(1)** Recall basic addition and subtraction facts. **(1)** Build, draw, describe and classify two- and three-dimensional figures. **(3)** Identify translations, reflections and rotations in

		and solve problems.		geometric designs.
Lessons 9, 10 How can you create new shapes by combining shapes?	**2:2.2a(1)** **4:3.1a(1&3)**	**2.2** Numerical and Proportional Reasoning: Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities. **3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction. **a.** Describe geometric properties of polygons and solids.	**(1)** Recall basic addition and subtraction facts. **(1)** Build, draw, describe and classify two- and three-dimensional figures. **(3)** Identify translations, reflections and rotations in geometric designs.
Lessons 11, 12 How can you use familiar benchmarks to estimate sizes?	**2:2.2a(1)** **2:3.3b(1)** **3:3.3b(1&3)**	**2.2** Numerical and Proportional Reasoning: Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities. **3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure. **3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction. **b.** Measure through direct comparison and through repetition of units. **b.** Determine and use different tools and units appropriate for specific measurement tasks.	**(1)** Recall basic addition and subtraction facts. **(1)** Develop and use nonstandard referents and standard benchmarks to estimate and measure length, area, weight, capacity and volume. **(1)** Develop and explain strategies for using nonstandard and standard referents to estimate measurements of length, area, weight, temperature, volume and capacity. **(3)** Describe and use estimation

				strategies that can identify a reasonable answer to a measurement problem when an estimate is appropriate.
	4:3.3b(4)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**b.** Make precise measurements and use benchmarks to estimate measures.	**(4)** Estimate, draw and measure length to the nearest inch, half-inch and centimeter.
	4:3.3a(1)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**a.** Recognize that patterns exist between measurements of length, perimeter and area of squares and rectangles.	**(1)** Explore converting inches to feet and feet to yards.
Lessons 13, 14 How can you quickly figure out the number of tiles you need to fill an area?	**2:2.2a(1)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction.	**(1)** Recall basic addition and subtraction facts.
	3:3.3b(1&2)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**b.** Determine and use different tools and units appropriate for specific measurement tasks.	**(1)** Develop and explain strategies for using nonstandard and standard referents to estimate measurements of length, area, weight, temperature, volume and capacity. **(2)** Explore strategies for estimating and measuring the perimeters, areas and volumes of irregular shapes and solids.
	4:3.1a(1)	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes	**a.** Describe geometric properties of polygons and solids.	**(1)** Build, draw, describe and classify two- and three-dimensional figures.

		and geometric theorems to describe relationships, communicate ideas and solve problems.		
	4:3.3a(3)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**a.** Recognize that patterns exist between measurements of length, perimeter and area of squares and rectangles.	**(3)** Explore relationships between the lengths of sides of rectangles and their areas and perimeters and generalize the patterns as simple formulas.
	4:2.2b(1)	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**b.** Use number patterns, basic facts, rectangular arrays, place value models and the distributive property to multiply and divide.	**(1)** Develop fluency with multiplication and division fact families for all factors 1 through 10.
Lessons 15, 16 How can you create congruent shapes with tangram pieces?	**2:2.2a(1)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction.	**(1)** Recall basic addition and subtraction facts.
	4:3.1a(1-3)	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	**a.** Describe geometric properties of polygons and solids.	**(1)** Build, draw, describe and classify two- and three-dimensional figures. **(2)** Analyze two-dimensional shapes and determine lines of symmetry and congruence. **(3)** Identify translations, reflections and rotations in geometric designs.
Lessons 17, 18 Why are regular polygons special?	**2:2.2a(1)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction.	**(1)** Recall basic addition and subtraction facts.

		measures and quantities.		
	4:3.1a(1&2)	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	**a.** Describe geometric properties of polygons and solids.	**(1)** Build, draw, describe and classify two- and three-dimensional figures. **(2)** Analyze two-dimensional shapes and determine lines of symmetry and congruence.
	5:3.1a(1)	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	**a.** Use geometric relationships to describe polygons and solids.	**(1)** Use geometric relationships such as parallel, perpendicular and congruent to describe the attributes of sets and subsets of shapes and solids.
Lessons 19, 20 What are the perimeters of the tangram pieces?	**2:2.2a(1)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction.	**(1)** Recall basic addition and subtraction facts.
	4:3.3a(2)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**a.** Recognize that patterns exist between measurements of length, perimeter and area of squares and rectangles.	**(2)** Solve practical problems that involve estimation and measurement of length, perimeter, area, volume, capacity, weight and temperature.
	4:3.3b(1)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**b.** Make precise measurements and use benchmarks to estimate measures.	**(1)** Identify and use the appropriate customary and metric units and tools for measuring length, perimeter, area, weight, time, temperature, volume and capacity.

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Lessons 21, 22 Do all polygons with the same area look the same?	**3:3.3b(2)**	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**b.** Determine and use different tools and units appropriate for specific measurement tasks.	**(2)** Explore strategies for estimating and measuring the perimeters, areas and volumes of irregular shapes and solids.
	4:2.2b(1)	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**b.** Use number patterns, basic facts, rectangular arrays, place value models and the distributive property to multiply and divide.	**(1)** Develop fluency with multiplication and division fact families for all factors 1 through 10.
	4:3.3a(2)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**a.** Recognize that patterns exist between measurements of length, perimeter and area of squares and rectangles.	**(2)** Solve practical problems that involve estimation and measurement of length, perimeter, area, volume, capacity, weight and temperature.
	4:3.1a(1)	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	**a.** Describe geometric properties of polygons and solids. .	**(1)** Build, draw, describe and classify two- and three-dimensional figures.
	5:3.1b(1)	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	**b.** Recognize that changes in the perimeter of a polygon may affect its area, and changes in area may affect the perimeter.	**(1)** Explore the relationship between area and perimeter when the dimensions of a polygon change.
Lessons 23, 24 Can you name that line and angle?	**3:3.1a(1)**	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas	**a.** Classify and compare polygons and solids using various attributes.	**(1)** Sort polygons and solids through using characteristics such as the relationship of sides (parallel, perpendicular), kinds of angles (acute, right and

		and solve problems.		obtuse), symmetry and congruence.
	4:2.2b(1)	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**b.** Use number patterns, basic facts, rectangular arrays, place value models and the distributive property to multiply and divide.	**(1)** Develop fluency with multiplication and division fact families for all factors 1 through 10.
	5:3.3a(3)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**a.** Solve problems in the measure of time and in the conversion of units of length in the customary and metric systems using specific ratios.	**(3)** Estimate and choose appropriate units and tools to measure and solve a variety of problems involving length, perimeter, area, volume, capacity, mass, time, angle and temperature.
Lessons 25, 26 How can you use a protractor to measure an angle?	**2:2.2a(1)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction.	**(1)** Recall basic addition and subtraction facts.
	3:3.1a(1)	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	**a.** Classify and compare polygons and solids using various attributes.	**(1)** Sort polygons and solids through using characteristics such as the relationship of sides (parallel, perpendicular), kinds of angles (acute, right and obtuse), symmetry and congruence.
	5:3.3a(3)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**a.** Solve problems in the measure of time and in the conversion of units of length in the customary and metric systems using specific ratios.	**(3)** Estimate and choose appropriate units and tools to measure and solve a variety of problems involving length, perimeter, area, volume,

				capacity, mass, time, angle and temperature.
Lessons 27, 28 What shapes make up familiar three dimensional shapes?	**4:2.2b(1)** **4:3.1a(1)** **5:3.2a(1)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities. **3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems. **3.2 Geometry and Measurement:** Use spatial reasoning, location and geometric relationships to solve problems.	**b.** Use number patterns, basic facts, rectangular arrays, place value models and the distributive property to multiply and divide. **a.** Describe geometric properties of polygons and solids. **a.** Identify, describe and build nets for solid figures and objects.	**(1)** Develop fluency with multiplication and division fact families for all factors 1 through 10. **(1)** Build, draw, describe and classify two- and three-dimensional figures. **(1)** Represent the surface of three-dimensional objects through the use of two-dimensional nets.
Lessons 29, 30 What does a picture look like in a mirror?	**2:2.2a(1)** **4:3.1a(1-3)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities. **3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction. **a.** Describe geometric properties of polygons and solids.	**(1)** Recall basic addition and subtraction facts. **(1)** Build, draw, describe and classify two- and three-dimensional figures. **(2)** Analyze two-dimensional shapes and determine lines of symmetry and congruence. **(3)** Identify translations, reflections and rotations in geometric designs.

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Lessons 31, 32 How much does a knight weigh when he is fully armed?	**2:2.2a(1)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction.	**(1)** Recall basic addition and subtraction facts.
	3:3.3b(1&3)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**b.** Determine and use different tools and units appropriate for specific measurement tasks.	**(1)** Develop and explain strategies for using nonstandard and standard referents to estimate measurements of length, area, weight, temperature, volume and capacity. **(3)** Describe and use estimation strategies that can identify a reasonable answer to a measurement problem when an estimate is appropriate.
	4:3.3a(2)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**a.** Recognize that patterns exist between measurements of length, perimeter and area of squares and rectangles.	**(2)** Solve practical problems that involve estimation and measurement of length, perimeter, area, volume, capacity, weight and temperature.
Lessons 33, 34 How can you create congruent shapes with tangram puzzle?	**2:2.2a(1)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction.	**(1)** Recall basic addition and subtraction facts.
	4:3.1a(1-3)	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes	**a.** Describe geometric properties of polygons and solids.	**(1)** Build, draw, describe and classify two- and three-dimensional figures.

		and geometric theorems to describe relationships, communicate ideas and solve problems.		**(2)** Analyze two-dimensional shapes and determine lines of symmetry and congruence. **(3)** Identify translations, reflections and rotations in geometric designs.
	4:3.3a(2)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**a.** Recognize that patterns exist between measurements of length, perimeter and area of squares and rectangles.	**(2)** Solve practical problems that involve estimation and measurement of length, perimeter, area, volume, capacity, weight and temperature.
	5:3.1a(1)	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	**a.** Use geometric relationships to describe polygons and solids.	**(1)** Use geometric relationships such as parallel, perpendicular and congruent to describe the attributes of sets and subsets of shapes and solids.
Lessons 35, 36 How can you find the number of lines of symmetry in a figure?	**2:2.2a(1)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction.	**(1)** Recall basic addition and subtraction facts.
	4:3.1a(1&2)	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	**a.** Describe geometric properties of polygons and solids.	**(1)** Build, draw, describe and classify two- and three-dimensional figures. **(2)** Analyze two-dimensional shapes and determine lines of symmetry and congruence.

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Lessons 37, 38 How can you cover an area without any spaces or openings (tessellate) with equilateral polygons?	**3:3.1a(3)**	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	**a.** Classify and compare polygons and solids using various attributes.	**(3)** Investigate ways to tile or tessellate a region or shape using various polygons.
	4:2.2b(1)	**2.2** Numerical and Proportional Reasoning: Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**b.** Use number patterns, basic facts, rectangular arrays, place value models and the distributive property to multiply and divide.	**(1)** Develop fluency with multiplication and division fact families for all factors 1 through 10.
	4:3.1a(1-3)	**3.1 Geometry and Measurement:** Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.	**a.** Describe geometric properties of polygons and solids.	**(1)** Build, draw, describe and classify two- and three-dimensional figures. **(2)** Analyze two-dimensional shapes and determine lines of symmetry and congruence. **(3)** Identify translations, reflections and rotations in geometric designs.
Lessons 39, 40 How can you use your knowledge of minutes and hours to determine a future or past time?	**2:2.2a(1)**	**2.2 Numerical and Proportional Reasoning:** Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.	**a.** Develop fact families of basic facts using the inverse relationship of addition and subtraction.	**(1)** Recall basic addition and subtraction facts.
	3:3.3a(1)	**3.3 Geometry and Measurement:** Develop and apply units, systems, formulas and appropriate tools to estimate and measure.	**a.** Plan events and make schedules.	**(1)** Tell time to the minute, using analog and digital clocks, and identify AM and PM.
	4:3.3b(2)	**3.3 Geometry and Measurement:** Develop and apply units, systems,	**b.** Make precise measurements and use benchmarks to	**(2)** Explore converting from one unit to another when measuring

		formulas and appropriate tools to estimate and measure.	estimate measures.	time and solve problems that involve elapsed time using clocks and calendars.