6 3rd Unit 6

Grade: 3

FCPS 2026-2027 Math Unit 6 Framework

**Must be logged into i-Ready to access this link*

Unit Title: Shapes - Attributes and Categories, Perimeter and Area, and Partitioning	**Estimated Time F**

Essential Standards: 3.MD.8, 3.G.1, 3.G.2
Supporting Standards: 3.OA.3, 3.OA.7, 3.NF.1, 3.NF.3, 3.MD.7
End of Unit Common Assessment and Pear Codes

FCPS Supporting Links			**Additional Supporting Links**
Pacing Guide Standards Progression FCPS Math Guidance Document Basic Fact Fluency Resources Elementary Intellectual Preparation Cycle FCPS Social-Emotional-Behavioral Standards Virtual Professional Learning Resources	Unit 1 Unit 2 Unit 3 Unit 4 Unit 5 Unit 6	CSA Examples (concrete, semi-concrete, & abstract) Unit 6: Unit Flow & Progression Video* Instructional Implications EoU most common errors	Kentucky Academic Standards KSA Blueprint Achieve the Core Progression Documents • Geometry • Geometric Measurement Literary Connections Target of the Standards - conceptual, proced Multilingual Glossary Illustrated Vocabulary Cards Unit 6 Language Support for English Learners Manipulative List*

Big Ideas	**Vibrant Learning Oppor** **These are sample ideas to start y*
• Two-dimensional shapes have many attributes that help to categorize them. • Perimeter is the sum of a shape's side lengths, and area measures the space inside a shape. • Shapes can be divided into equal parts to show fractional parts of a whole. *For more information, view the **Math Background pages 673m-673p*** in the Teacher's Guide.*	**Unit 6 Math In Action Lesson** - Work With S In this lesson, students apply multiple skills f real-world problems related to to paper craft identifying, drawing, and sorting shapes base shape into equal parts, and tiling rectangles 3.G.1, 3.G.2, 3.MD.5a, 3.MD.5b, 3.MD.6, 3.MD.7a, 3 **Additional Springboard Ideas**

Essential Questions	**Common Preconceptions/Misconceptions**
How can 2-D shapes be analyzed and classified? How can shapes be classified into multiple subcategories? How are area and perimeter useful in different contexts?	• Sometimes students will not see all of classifying it. Help students to define and see where there are overlaps. • Students may confuse area and perim they are given formulas to calculate a not have enough concrete experience formulas. Provide contextual problem understand the meaning.

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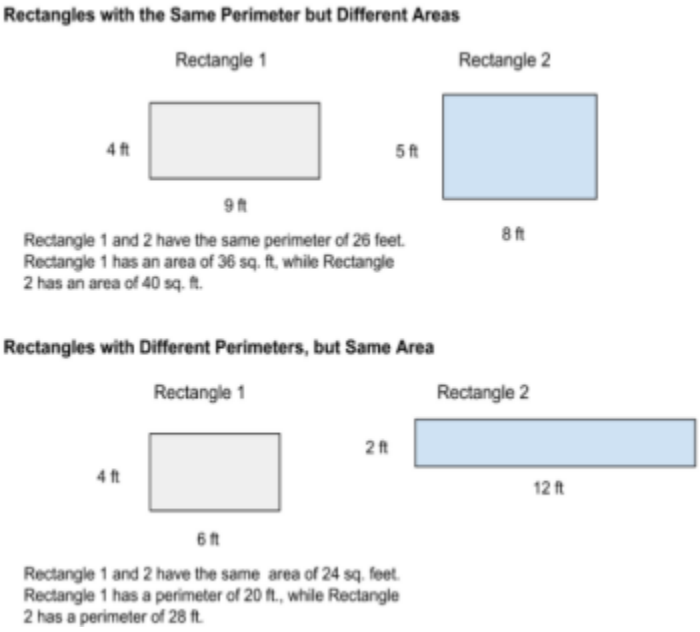
Standards for Mathematical Practices	Kentucky Interdisciplinary Literacy Practi
MP.1. Make sense of problems and persevere in solving them. MP.2. Reason abstractly and quantitatively. MP.3. Construct viable arguments and critique the reasoning of others. MP.4. Model with mathematics. MP.5. Use appropriate tools strategically. MP.6. Attend to precision. MP.7. Look for and make use of structure. MP.8. Look for and express regularity in repeated reasoning.	1. Recognize that text is anything that commu 2. Employ, develop, and refine schema to un 3. View literacy experiences as transactiona transformational. 4. Utilize receptive and expressive language self, others, and the world. **5. Apply strategic practices, with scaffoldi independently, to approach new literacy ta** **6. Collaborate with others to create new m** **7. Utilize digital resources to learn and sha** **8. Engage in specialized, discipline-specif** **9. Apply high level cognitive processes to about text.** 10. Develop a literacy identity that promotes
Essential Standards	**Sample Learning Intentions & Success Criteria**
🔷Indicates a consideration for planning and instruction	**❗Indicates a misalignment with Kentu**
Cluster: Geometric measurement: Recognize perimeter as an attribute of plane figures and distinguish betw measures.	
KY.3.MD.8 Solve real-world and mathematical problems involving perimeters of polygons. **a. Find the perimeter given the side lengths of a polygon.** **b. Find an unknown side length, given the perimeter and some lengths.** **c. Draw rectangles with the same perimeter and different areas or with the same area and different perimeters. MP.1, MP.4** ❑ Conceptual ❑ Procedural ❑ Application	We are learning about perimeter so we can solve real-world problems. I know I am successful when: • I can find the perimeter when given the side lengths of a polygon. • I can find the unknown length of a polygo by using known measurements. • I can explain how to find the perimeter in real-world problem. • I can draw rectangles with the same perimeter and different areas. • I can draw rectangles with different perimeters and the same area.



Coherence KY.3.MD.8→KY.4.MD.3

Supporting Standards: KY.OA.3, KY.OA.7, KY.MD.7

Attending to the Standards for Mathematical Practice

Students recognize perimeter is a measure of length and see perimeters of polygons as a collection of side lengt the perimeter (MP.1). Therefore, they see if a side length is missing, it is like a missing addend problem and write a diagram to solve for the missing value (MP.4). Students recognize they can use a given perimeter (such as 16 inch rectangles (such as 4 x 4, 3 x 5, 2 x 6, 1 x 7) and that these rectangles have different areas (MP.1).

Cluster: Reason with shapes and their attributes.

KY.3.G.1 Classify polygons by attributes.
a. Recognize and classify polygons based on the number of sides and vertices (triangles, quadrilaterals, pentagons and hexagons).
b. Recognize and classify quadrilaterals (rectangles, squares, parallelograms, rhombuses, trapezoids) by side lengths and understand shapes in different categories may share attributes and the shared attributes can define a larger category.
c. Identify shapes that do not belong to a given category or subcategory. MP.6, MP.7

☐ Conceptual ❑ Procedural ❑ Application

Students describe, analyze and compare properties of two-dimensional shapes.

Coherence KY.2.G.1→KY.3.G.1→KY.4.G.2

We are learning about the attributes of polygons so we can classify polygons.

I know I am successful when:

- I can recognize and classify polygons based on numbers of sides and vertices.
- I can recognize and classify quadrilateral by side lengths and angles.
- I can explain what different categories of quadrilaterals have in common.
- I can explain why a shape may fit into more than one category.
- I can identify shapes that do not belong t a given category and explain my reasoning.

KY.3.G.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. MP.2, M.5 ▯ Conceptual ❑ Procedural ❑ Application Partitioned parts should be halves, thirds, fourths, sixths, eighths. Students partition a shape into 6 parts with equal areas and describe the area of each part as $\frac{1}{6}$ of the area of the shape. KY.3.NF.1 Coherence KY.2.G.3 →KY.3.G.2 *Supporting Standards: KY.3.NF.1, KY.3.NF.3*	We are learning about equal parts so we can partition shapes. I know I am successful when: • I can break apart a whole into equal part using halves, thirds, fourths, sixths, and eighths. • I can partition a shape with equal areas and describe the area of each part. • I can represent and describe part of the whole by identifying the unit fraction. • I can explain if a partition is an equal par even when the shape of the pieces is different.

Attending to the Standards for Mathematical Practice

Students describe attributes they notice for a particular type of quadrilateral, focusing on side lengths and angles different types of quadrilaterals have in common and can distinguish between what are defining attributes (such a what are not defining (such as its size or color) (MP.3). Students use a variety of tools and drawings tro show fract reason if a shape is partitioned into four equal-sized parts (even if they are not the same shape), each part repres whole shape (MP.2).

Supporting Standards	**Sample Learning Intentions & Success Criteria**
KY.3.OA.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays and measurement quantities, by using drawings and equations with a symbol for the unknown number to represent the problem. MP.1, MP.4 ❑ Conceptual ❑ Procedural ▯ Application Students flexibly model or represent multiplication and division situations or context problems (involving products and quotients up to 100). Note: Drawings need not show detail, but accurately represent the quantities involved in the task. See Table 2 in Appendix A. Coherence KY.3.OA.3→KY.4.OA.2	We are learning how to use drawings and equations so that we can determine the unknown in multiplication and division word problems. I know I am successful when: • I can solve multiplication and division word problems involving area.
KY.3.OA.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division or properties of operations. MP.2, MP.8 ❑ Conceptual ▯ Procedural ❑ Application	We are learning about models and strategies so we can fluently multiply and divide within 100. I know I am successful when:

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Students determine multiplication and division strategies efficiently, accurately, flexibly and appropriately. Being fluent means students choose flexibly among methods and strategies to solve contextual and mathematical problems, they understand and explain their approaches and they produce accurate answers efficiently. Knowing 8 x 5 = 40, one knows 40 ÷ 5 = 8. Note: Reaching fluency is an ongoing process that will take much of the year. Coherence KY.3.OA.7→KY.4.OA.4	• I can interpret a multiplication situatio using pictures, objects, words, numbers, and equations. • I can break apart a factor as a strateg for multiplying. • I can explain how to use related facts to multiply within 100. • I can use reasoning and the relationship between multiplication and division to find quotients. • I can explain how to use related facts to divide within 100.
KY.3.NF.1 Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$. MP.2, MP.7 ☐ Conceptual ❑ Procedural ❑ Application Students name parts of the whole using fractions and explain the fraction is made up of unit fractions. Students describe the numerator and the denominator using pictures, numbers and words. $\frac{4}{6} = \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6}$ Note: grade 3 expectations in this domain are limited to fractions with **denominators 2, 3, 4, 6 and 8.** Coherence KY.2.G.3→KY.3.NF.1→ KY.4.NF.3	We are learning to identify parts of a whole s we can explain that the fraction is made up o unit fractions. I know I am successful when: • I can create and use models to identify parts of a whole. • I can identify the numerator and denominator using pictures, numbers an words. • I can create and use models to name fractions. • I can show and explain how unit fraction make up a fraction.
KY.3.NF.3 Explain equivalence of fractions in special cases and compare fractions by reasoning about their size. ~~**a. Understand two fractions as equivalent (equal) if they are the same size, or same point on a number line.**~~ **b. Recognize and generate simple equivalent fractions. Explain why the fractions are equivalent through writing or drawing.** ~~**c. Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers.**~~ **d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions. MP.2, MP.3** ☐ Conceptual ❑ Procedural ❑ Application	We are learning about equivalence so we ca name fractions in multiple ways. I know I am successful when: • I can generate equivalent fractions and explain my reasoning. We are learning to reason about the size of fractions so we can compare them. • I can compare two fractions using the symbols >, =, or <. • I can use models or number lines to justify my comparisons.

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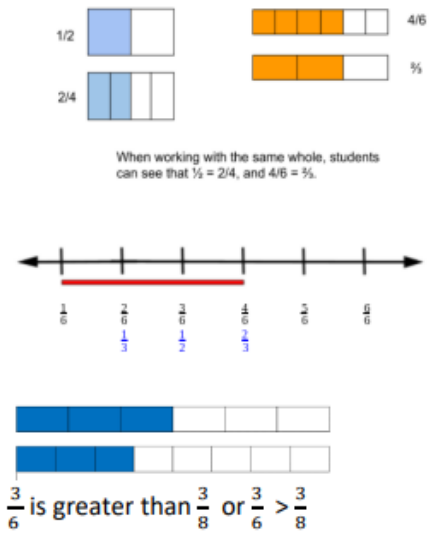

Note: grade 3 expectations in this domain are limited to **fractions with denominators 2, 3, 4, 6 and 8.**

KY.4.NF.1

Coherence KY.3.NF.3→ KY.4.NF.5

KY.3.MD.7 Relate area to the operations of multiplication and addition.
a. Find the area of a rectangle with whole-number side lengths by tiling it and show the area is the same as would be found by multiplying the side lengths.
b. 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.
~~**c. Use tiling to show in a concrete case 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.**~~
~~**d. Recognize area as additive. Find areas of figures that can be decomposed into non-overlapping rectangles by adding the areas of the non-overlapping parts, applying this technique to solve real-world problems**~~**. MP.1, MP.8**

❑ Conceptual ❑ Procedural ❑ Application

Coherence KY.3.MD.7→KY.4.MD.3→ KY.5.MD.5

We are learning how to multiply the length ar width of a rectangle so we can find the area.

I know I am successful when:

- I can find the area by tiling to see how many squares will cover a figure and relating this total to multiplication.
- I can find the area of rectangles by using the area formula.
- I can use the area formula for rectangles to solve real-world problems.