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| Trimester 3 | Grade: 4 | Unit Number: 8 |
| Unit Overview: * Review perimeter and area concepts
* Develop formulas as mathematical models for the areas of rectangles, parallelograms, and triangles
* Explore applications of area with scale drawings
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| Essential Question: How can you use perimeter and area when creating a scale drawing? |
| Academic Vocabulary: multiplicative comparison, additive comparison, remainder, estimation, rounding, fraction, unit fraction, multiple, metric units, standard units, decimal, scale, area, perimeter, formula, point, line, line segment, ray, angle, right angle, acute angle, obtuse angle, perpendicular, parallel, right triangle |
| Lesson | Standard | Guiding Questions | Additional Resources  | Differentiation | Student Learning Goals |
| 8.1 | 4.NF.1 4.NF.6**4.MD.2** | What do the work triangles represent? |  |  | I can…* Solve multiplication or division problems using drawings and/or equations with a symbol for the unknown number to represent the problem.
* Distinguish between multiplicative (as many times as) and additive (more) comparisons.

4.OA.2* Solve multi-step word problems with whole numbers using the four operations.
* Interpret remainders in word problems.
* Write equations using a variable to represent the unknown quantity.
* Check my answers using mental computation and estimation strategies, including rounding.

4.OA.3* Use my understanding of place value to round multi-digit whole number to any place

4.NBT.3* Describe the relative size of measurement units (e.g., 1 foot = km, m, cm; kg, g; lb, oz; hr, min, sec).
* Represent a larger unit as a multiple of smaller units within the same system of measurement and record the equivalent measures in a two-column table (e.g. 1 foot = 12 inches, 2 feet = 24 inches, 3 feet = 36 inches).

4.MD.1* Represent measurements using diagrams such as a number line that features a measurement scale.
* Use the four operations to solve word problems involving measurements.
* Convert a measurement given a larger unit into an equivalent measurement in smaller units in order to solve a problem.

4.MD.2* Use the formulas for area and perimeter to solve real world problems.

4.MD.3* Explain that a fraction a/b is a multiple of 1/b/
* Use my understanding that a multiple of a/b is a multiple of 1/b to multiply a fraction by a whole number.
* Solve words problems that involve multiplying a fraction and a whole number suing visual models and equations.

4.NF.4* Draw points, lines, line segments, rays, angles (right, obtuse, acute) perpendicular lines, and parallel lines.
* Identify points, lines, line segments, rays, angles (right, obtuse, acute) perpendicular lines, and parallel lines in a given two-dimensional figure.

4.G.1* Classify two-dimensional shapes based on parallel lines, perpendicular lines, those with both or no parallel and perpendicular lines.
* Classify two-dimensional shapes based on the presence or absence of acute, obtuse, or right angles.
* Identify a right angle.

4.G.2 |
| 8.2 | **4.NF.4a 4.NF.4b****4.NF.4c** | How will the rough floor plan help you make a scale drawing? |  |  |
| 8.3 | 4.NF.2 **4.MD.3** | Why is it important to use the correct units when you explain problems? |  |  |
| 8.4 | **4.MD.1 4.MD.2** | When might you make an estimate instead of a guess? |  |  |
| 8.5 | 4.MD.2 **4.MD.3** | Why do we call some math rules shortcuts? |  |  |
| 8.6 | 4.NF.4c **4.MD.3**4.MD.7 **4.G.1** | How can two polygons that look different have the same area? |  |  |
| 8.7 | 4.NBT.24.NF.4c**4.MD.3 4.G.1,****4.G.2** | How do properties of triangles and rectangles help you explain the formula for the area of a triangle: A=1/2 (b x H)? |  |  |
| 8.8 | **4.OA.2****4.OA.3****4.NBT.3 4.MD.2** | How might this information be useful? |  |  |
| Assessment: Progress Check Unit 8 |