Grade 3 Mathematics Unit Preview
Quarter 3: Geometry

Objectives: (Your student will be able to)

- **Identify, define and draw a point, line segment, line and ray.**
- **Identify and label the vertex of an angle.**
- **Determine whether angles are greater than, equal to, or less than a right angle.**
- **Identify and describe polygons including triangles, quadrilaterals, pentagons, hexagons, and octagons.**
- **Identify quadrilaterals (squares, rectangles, rhombi, parallelograms, trapezoids) by the length of the sides.**
- **Describe the following relationships: rectangle/rectangular prism, circle/sphere, square/cube, triangle, triangular pyramid.**
- **Identify the faces, vertices, and edges of solid figures.**
- **Describe, demonstrate slides, flips, and turns.**
- **Identify/describe symmetry of geometric figures.**
- **Identify/describe congruency (same size and shape) of geometric figures.**

See attached vocabulary for additional information.

Activities to do with your student (in addition to homework, optional):

- Go on a shape hunt! Look for geometric shapes in your home and community. Create a chart to show your findings.
- Go stargazing and make imaginary line segments by connecting the stars (points). Create geometric shapes.
- Think of a line as a ball of yarn that never ends. Cut pieces of yarn to make line segments. Measure each segment in inches (to the nearest quarter inch) and centimeters.
- Identify angles that are less than, equal to and greater than right angles.
- Make patterns using flips, turns and rotations using household objects (e.g., buttons, macaroni, blocks)
- Use grid paper to create congruent shapes.
- Locate symmetrical objects in your home. Use yarn to identify the lines of symmetry.
- Practice multiplication and division facts.

HOWARD COUNTY
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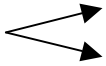
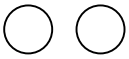
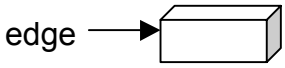
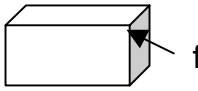
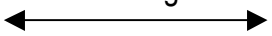
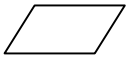
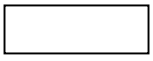
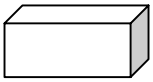
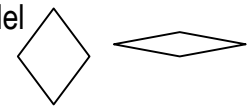
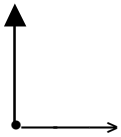
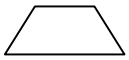
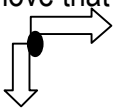
Visit **http://smart.hcpss.wikispaces.net** for HCPSS elementary mathematics program information.

Vocabulary: (Words your student will need to understand)

• **angle:** a geometric figure formed by two rays that have a common endpoint 	• **base**: a bottom face of a 3-D figure 
• **circle**: a 2-D figure with 0 sides and 0 corners	• **cone**: a 3-D, pointed figure with a flat, round base 
• **congruent:** shapes that have the same size and shape 	• **cube:** a 3-D figure with 6 square faces 
• **edge:** the line segment where two faces of a 3-D figure meet 	• **cylinder:** a 3-D figure with circular bases that are parallel and congruent 
face: a flat surface of a 3-D figure 	**flip:** a move that involves flipping a figure across a line 
hexagon: a 2-D figure with 6 sides and 6 angles 	**line:** a straight path extending in both directions with no endpoints 
line segment: a part of a line that includes two points, called endpoints, and all the points between them	**octagon:** a 2-D figure with 8 sides and 8 angles 
parallelogram: a quadrilateral with two pairs of parallel sides and two pairs of equal sides 	**pentagon:** a 2-D figure with 5 sides and 5 angles 
point: an exact position or location •	**polygon:** a closed plane figure with straight lines
prism: a solid, 3-D shape with two identical, parallel bases 	**pyramid:** a 3-D, pointed figure with a square base 
quadrilateral: a polygon with four sides	**ray:** a part of a line, with one endpoint, that continues without end in one direction
rectangle: a 2-D figure with 4 sides and 4 right angles, opposite sides are 	**rectangular prism:** a 3-D figure with 6 faces that are rectangles 

Vocabulary: (Words your student will need to understand)

• **rhombus:** a 2-D figure with 4 equal sides and 4 angles, opposite sides are parallel 	**right angle:** an angle that forms a square corner 
• **slide:** move of a figure to a new position without turning or flipping it 	• **solid figure:** a figure that has length, width and height
• **sphere:** a 3-D figure that has the same shape as a round ball 	• **square:** a 2-D figure with 4 equal sides and 4 angles 
• **symmetry:** when one half of a figure looks like the mirror image of the other half	• **trapezoid:** a 2-D figure that has 4 sides and 4 angles, one pair of sides is parallel 
• **triangle:** a 2-D figure with 3 sides and 3 corners 	• **turn:** a move that involves rotating a figure around a point 
• **vertex (vertices):** a corner where two or more edges meet in a solid figure