Curriculum Parent Overview - Unit 4 (Grade 3)

MATHEMATICS

UNIT #4: PERIMETER, AREA, AND POLYGONS (2-D GEOMETRY AND MEASUREMENT)

CONTENT FOCUS:
This unit develops students' ideas about the attributes of two-dimensional (2-D) and three-dimensional (3-D) shapes and how these attributes determine their classification. The measurement develops students' ideas about measurable attributes and the techniques, tools, and units used to measure each of them. These ideas are developed through activities that focus on understanding and finding perimeter and area using standard units of measurement, and on classifying 2-D figures.

UNIT FOCUS:

- Understanding and finding perimeter: Students learn that the distance around the outside edges of a 2-D figure is called the perimeter. Students develop and apply their understanding of perimeter as they measure the perimeter of 2-D faces of objects in the classroom, create rectangles with given perimeter, find missing side lengths of shapes for which the perimeter and some of the side lengths are known and consider why shapes with the same perimeter can have different shapes.
- Understanding and finding area: Area involves covering space, the unit of area must also cover space. Students will think through what it means to measure flat space. Students identify the amount of flat space a given object covers as its area, and learn that area is measured in square units.
- Describing and classifying 2-D figures: Understanding that a shape is classified as a triangle or a quadrilateral on the basis of the number of its sides and other attributes, not on its resemblance to a particular familiar shape, is an important idea in this unit. Students will identify key attributes of triangles, quadrilaterals, rectangles, squares, and rhombuses.

MATHEMATICAL PRACTICES:
MP3: Construct viable arguments and critique the reasoning of others.
MP6: Attend to precision.

CONNECTIONS TO PREVIOUS CONTENT:
This unit builds on the work students have done in previous grades as they developed an understanding of the need for standard units of measure and a familiarity with the use of rulers, yardsticks, and metersticks to measure length; and with reasoning about 2-D shapes and their attributes. The work in this unit assumes students are able to measure the lengths of objects, that they are familiar with 2-D shapes such as triangles, squares, and rectangles and are able to identify some of the attributes of these shapes.

CONNECTIONS TO FUTURE CONTENT:
Students continue their work with measurement and 2-D geometry in Grade 4 and 5. They measure longer lengths, and also measure mass and volume. Students measure using a variety of units, and begin converting measurements. They also continue working with perimeter and area, as well as measurement of angles. Students continue using properties of 2-D shapes to classify figures into categories based on those properties.

MATH AT HOME:

- Visit Investigations Math At-Home for ideas
- Review the Math Words and Ideas videos for this unit on Pearson Site