



FIFTH GRADE MATHEMATICS – Unit 1

Dear Parents,

During Unit 1, students learn to analyze and relate categories of two-dimensional shapes explicitly based on their properties. Based on analysis of properties, they classify two-dimensional figures in hierarchies. For example, they conclude that all rectangles are parallelograms, because they are all quadrilaterals with two pairs of opposite, parallel, equal-length sides. In this way, they relate certain categories of shapes as subclasses of other categories.

GEOMETRY

Students need to:

- Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).
- Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
- Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.
- Classify two-dimensional figures in a hierarchy based on properties.

KEY VOCABULARY

Coordinate system	Horizontal
Coordinate plane	Vertical
First quadrant	Intersection of lines
Points	Origin
Lines	Ordered Pairs
Axis/Axes	Coordinates
x-axis	x-coordinate
y-axis	y-coordinate

BACKGROUND INFORMATION AND EXAMPLES FOR PARENTS

Geometry Terms Document:

<http://www.carrollk12.org/instruction/instruction/elementary/math/curriculum/fifth/geometry/default.asp>

WAYS PARENTS CAN HELP

Help your child solve real-world problems by creating and analyzing a graph. For example, Sara has saved \$20. She earns \$8 for each hour she works. If Sara saves all of her money, how much will she have after working 3 hours? 5 hours? 10 hours? Create a graph that shows the relationship between the hours Sara worked and the amount of money she has saved. What other information do you know from analyzing the graph?