# $5^{\text {th }}$ Grade Unit 7: <br> Exploring Geometry and the Coordinate Plane 

## Overview:

In this unit, students are introduced to the structure of the coordinate grid, and the convention and notation of coordinates to name points. This unit also offers students an opportunity to build on their understanding of shapes by classifying polygons based on their properties. In their work with patterns, students generate two different numerical patterns, and identify relationships between the corresponding terms within those patterns.

## Learning Targets:

In Unit 7, students will:

- Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms by completing a table.
- Represent problems by plotting ordered pairs and explain coordinate values of points in the first quadrant of the coordinate plane.
- Classify, compare, and contrast polygons based on properties.
- Determine, through exploration and investigation, that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.

Key Vocabulary:

| attribute | ordered pair |
| :--- | :--- |
| axes | origin |
| coordinate | polygon |
| coordinate plane (cartesian plane) | $y$-coordinate |
| first quadrant | $x$-coordinate |

## Supporting Resources:

http://ctlslearn.cobbkı2.org/
https://gavirtual.instructure.com/courses/34730\#modules
Coordinate Grid - Math Learning Center Geoboard
ordered pair
origin
polygon
$y$-coordinate
x-coordinate
https://www.math4texas.org/Page/451
https://www.geogebra.org/m/XMFZB3vF
https://www.mathsisfun.com/data/click-coordinate.html

