# Unit 4b-Graph Points on the Coordinate Plane

Content Area: **Math**
Course(s): **Math 5**
Time Period: **Marking Period 4**
Length: **MP4 Topic 14 14-1 to 14-4**
Status: **Published**

## Essential Questions

- How are points plotted?
- How are relationships shown on a graph?

## Big Ideas

- **Graph Points:** Students develop an understanding of the coordinate system. Students will learn how to graph and interpret ordered pairs in the first quadrant.
- **Solve Real-World Problems:** Students represent data on a coordinate grid and use graphs to solve problems.

## Cross-Curricular Integration

**Integration Area: Science**

5-ESS1-2 Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

**Activity:**

Students will discuss what a constellation is. Students will graph points on a coordinate grid to represent various constellations. (Math and Science Activity 14-1)

## Enduring Understandings

**Geometry**

5.G.A.1 [M] 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).

5.G.A.2 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.

**Data Literacy**

5.DL.A.2 Develop strategies to collect, organize and represent data of various types and from various sources. Communicate results digitally through a data visual (e.g. chart, storyboard, video presentation).

5.DL.A.4 Using appropriate visualizations (i.e. double line plot), analyze data across samples.

## Mathematical Practices Focus

2. Reason abstractly and quantitatively.