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Elementary Coordinate Geometry Activity

LPSD Standards:

MA 07. 13.01

 08. 11.02

 13.01

 09. 11.01

 13.01

 10. 11.01

 13.01

Materials:

* Whiteboard/Chalkboard/Smartboard
* Coordinate grid
* Pencil/Colored Pencils/Crayons
* Coordinates
* Ruler/Straight Edge

Procedure:

 Review key terms (coordinate grid, the origin, quadrant, positive, negative, x-axis, y-axis, ordered pair, line segments). As you review the terms, ensure that the students are aware of how each is applied. For example, remind them that ordered pairs are always (x, y) and the positive and negative directions on each axis. Pass out the coordinate grid and instructions. Have the student find the first set of points up to the stop sign. When they have plotted all the points, show them that they should connect the dots in order from first to last with line segments using a ruler or straight edge. Have them show you they can replicate. Let them plot points and connect dots on their own, checking in periodically to ensure they are moving along properly. After they finish creating the picture, have them color it in and post it in the classroom.

Extension:

 Hand out graph paper to the students and tell them to draw a picture of their own using only line segments. You may want to put some type of minimum on the number of points or lines that they need. For example, you must have at least five triangles and four rectangles in your picture or you must have at least 20 points in your picture. Let them be creative and develop their own designs. After they have finished the design, instruct them to create directions similar to the ones they just followed. Then, give them to another student to see if they can follow the directions and recreate the design.