

General Information:

- Teacher - Ms. Karyakose
- Subject Area - Math
- Lesson Title - Ordered Pairs
- Grade Level - 6th Grade

Essential Question(s):

- What is a coordinate point?
- What is a reflection?

Summary:

- Students will learn about plotting points over the course of a 3-day lesson. Students will begin by review how to plot points and what components are used to plot points. Students will then learn about point reflection and transitions. Students will conclude the lesson by creating a presentation of what they have learned about plotting points, how to find reflections, and the common mistakes that are made.

Objective(s):

- Students will be able to identify and plot the (x,y) coordinate in an ordered pair
- Student will be able to compare the X and Y coordinated and identify and create reflections
- Student will be able to create a presentation displaying their knowledge of plotting points, reflection and common mistakes

State Content Standard(s)/Benchmark(s):

- 6.NS.6b Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.

Technology Standard(s):

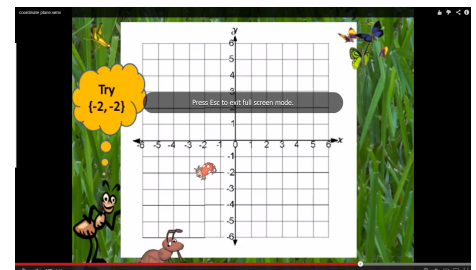
- Creativity and Innovation
- Communication and Collaboration
- Digital Citizenship

Procedures:**Day 1 Anticipatory Set**

- Have the students watch the [Coordinate Plane Youtube Video](#)
- After the video, students need find a partner and explain 3 things they learned or refreshed their memory on while watching the movie

Day 1 Direct Instruction and check for understanding

- Pass out the [quadrant activity page](#), have the students fold on the solid line, and cut on the dotted line
- Have the students create a X, Y axis in the center of their page, and label it.



- Label the origin and what an ordered pair is (X,Y)
- As a class, Under flap for quadrant I have the students write Ordered Pair (+,+) and plot that points A(2,3), B(1,6), and create their own points C, D
- Under flap for Quadrant II have the students write Ordered Pair (-,+) and plot that point E(-3,0) F(-5,5) and create their own point G,H
- Under flap for Quadrant III have the students write Ordered Pair (-,-) and plot the point I(-5,-3) J(-2,-4) and create their own point K, L
- Under flap for Quadrant IV have the students write Ordered Pair (+,-) and plot the point M(5,-6) N(2,-3) and create their own O, P
- After the students finish their plotting points notes have them glue it in their math notebook and use it as reference for their homework

Day 1 Independent Practice

- Give the students the remainder of the hour to start working of the homework (pg 91 # 1-22)

Day 2 Anticipatory Set

- Display the [reflection image](#) on the board
- Give the students 1-2 minutes to talk to one another
- As a class discuss what they notice about the image



Day 2 Direct Instruction

- Ask the students to take out the Quadrant foldable out for reference
- Ask the students if they recognize any points that have the same X coordinate (I/F, A/N)
- Ask the students if they recognize any point that have the same Y coordinate (I/N)
- Ask the students if they notice any of the same X coordinate pairs from step 8 are equal distance from the Axis, if so ask the class what these points might be (reflections - Vertical)
- Explain to the students that when two points are only different by one + or - sign the points will be reflection of each other either over the X- axis or the Y- axis

Day 2 Check for understanding

- Student will try some sample reflections (pg 90 #5-8)
- Have the students replot each point with a new color for each point T-red U-green V-Brown W-blue
- Have the students plot the vertical and horizontal reflection of point T in their corresponding color
- Once you have walked them through point T have the students try U/V/W by themselves

Day 2 Independent Practice

- Give the students the remainder of the hour to start their homework (pg 91 # 23-34) evens do vertical reflexion, odds do horizontal reflexions
- Each problem should be a new graph

Day 3 Assessment

- Student will be given the hour to create and edit a Prezi of what they have learned about plotting points these last two days with the groups
- Students will be required to have all of the following: How to plot a point, how to find a reflection, and common mistakes that are made

Marzano Instructional Strategies:

- Identifying similarities and differences (1)

- Summarizing and note taking (2)
- Homework and Practice (4)
- Cooperative learning (6)

Technology Integration:

- Students will use [Prezi](#) to describe what they have learned about on plotting points and the reflection of those points.

Materials and Resources:

- 6th grade [Math](#) Textbook (access code : D6F8688EC1)
- [Quadrant Foldable](#)
- [Coordinate Plane Youtube Video](#)
- Graph Paper
- Colored Pencils

Assessment Method(s):

Extended presentation (Prezi) - [Rubric](#)

Notes:

- Remind students to bring colored pencils or markers with them to class day 1 and 2