

S. P. ARNETT MIDDLE SCHOOL
COMMON CORE ALIGNED LESSON PLAN TEMPLATE

TEACHER: Ashleigh Richardson

SUBJECT: Mathematics

DATE: December 4 – 8, 2023

GRADE: 8th

CCSS: Common Core Learning Standard(s) Addressed:

MATH

8.G.A.3 - Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates. (Rotations are only about the origin, dilations only use the origin as the center of dilation, and reflections are only over the y-axis and x-axis in Grade 8.)

ALGEBRA 1

A1.F-IF.A.1-Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y = f(x)$.

A1.F-IF.A.2-Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.

A1.F-IF.B.5-Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.

A1.A-REI.D.11-Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, piecewise linear (to include absolute value), and exponential functions.

A1.F-IF.B.4-For linear, piecewise linear (to include absolute value), quadratic, and exponential functions that model a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior.

A1.F-IF.C.9-Compare properties of two functions (linear, quadratic, piecewise linear [to include absolute value] or exponential) each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).

Danielson, 1c

Monday 12/4/23

Algebra I

- Bellringer: Define a Function in Context
- We Will: Use equations, tables, and graphs to represent functions in context.
- Eureka Math² Module 3: Lesson 6: Representations of Functions
- I Will: Strategically choose function representations to model real-world contexts.

Regular Math

- Bellringer: Properties of Dilations
- We Will: Draw images of figures under dilations with various scale factors.
- Eureka Math² Module 3: Lesson 5: Figures and Dilations
- I Will: Examine the dilation of a curvilinear figure and realize that finding the images of the endpoints is not enough to find the image of a curvilinear figure.

Tuesday 12/5/23

Algebra I

- Bellringer: Study for Quiz
- We Will: Review/Ask Questions about Study Guide for Eureka Math2 Module 3: Topic A Quiz
- Eureka Math² Module 3: Topic A Quiz
- I Will: Take Eureka Math² Module 3: Topic A Quiz

Regular Math

- Bellringer: Properties of Dilations
- We Will: Use a mathematical model to explain a real-world situation.
- Eureka Math² Module 3: Lesson 6: The Shadowy Hand
- I Will: Apply properties of dilations to make and test predictions.

Wednesday 12/6/23

Algebra I

- Bellringer: Graph Linear Equations
- We Will: Informally identify key features of a function and its graph.
- Eureka Math² Module 3: Lesson 7: Exploring Key Features of a Function and Its Graph.
- I Will: Sketch a graph showing elevation vs. time for a given situation.

Regular Math

- Bellringer: Properties of Dilations
- We Will: Apply dilations on a grid.
- Eureka Math² Module 3: Lesson 7: Dilations on a Grid
- I Will: Utilize the structure a grid provides to apply dilations.

Thursday 12/7/23

Algebra I

- Bellringer: Identify Intercepts of Lines from Graphs
- We Will: Identify and interpret key features of a function and its graph.
- Eureka Math² Module 3: Lesson 8: Identifying Key Features of a Function and Its Graph
- I will: Identify familiar features such as domain, range, and intercepts.

Regular Math

- Bellringer: Multiply Rational Numbers
- We Will: Apply dilations centered at the origin on the coordinate plane.
- Eureka Math² Module 8: Dilations on the Coordinate Plane
- I Will: Determine the scale factor of a dilation centered at the origin.

Friday 12/8/23

Algebra I

- Bellringer: Identify the Key Features of Functions and Their Graphs
- We Will: Sketch the graphs of functions given verbal descriptions.
- Eureka Math² Module 3: Lesson 9: Representing Functions from Verbal Descriptions
- I Will: Consider what information might be helpful when sketching the graph of a function for a given context.

Regular Math

- Bellringer: Study for Quiz
- We Will: Review/Ask Questions for Eureka Math² Module 3: Topic B Quiz
- Eureka Math² Module 3: Topic B Quiz
- I Will: Take Eureka Math² Module 3: Topic B Quiz

Danielson, 2c, 3b, 3c,

Resources/Materials: (What texts, digital resources, & materials will be used for this lesson?)

1. Bellringer PDF
2. Other materials embedded in daily lesson/activity plan

Danielson, 2c, 3c