

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

TEACHER: Ashleigh Richardson

SUBJECT: Mathematics

DATE: February 12-16, 2024

GRADE: 8<sup>th</sup>

CCSS: Common Core Learning Standard(s) Addressed:

**MATH**

8.EE.B.5-Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways.

For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.

8.EE.B.6-Use similar triangles to explain why the slope  $m$  is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation  $y = mx$  for a line through the origin and the equation  $y = mx + b$  for a line intercepting the vertical axis at  $b$ .

**ALGEBRA 1**

HSA-SSE.A.2-Use the structure of an expression to identify ways to rewrite it.

For example, see  $x^4 - y^4$  as  $(x^2)^2 - (y^2)^2$ , thus recognizing it as a difference of squares that can be factored as  $(x^2 - y^2)(x^2 + y^2)$ .

HSA-CED.A.1-Create equations and inequalities in one variable and use them to solve problems.

Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

HSA-CED.A.2-Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

HSA-SSE.B.3.a-Factor a quadratic expression to reveal the zeros of the function it defines.

HSF-IF.C.7.a-Graph linear and quadratic functions and show intercepts, maxima, and minima.

HSF-IF.C.8.a-Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.

HSA-REI.B.4.b-Solve quadratic equations by inspection (e.g., for  $x^2 = 49$ ), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as  $a \pm bi$  for real numbers  $a$  and  $b$ .

*Danielson, 1c*

**Monday 2/12/24**

Algebra I

- Mardi Gras BREAK

Regular Math

- Mardi Gras BREAK

**Tuesday 2/13/24**

Algebra I

- Mardi Gras BREAK

Regular Math

- Mardi Gras BREAK

**Wednesday 2/14/24**

Algebra I

- Mardi Gras BREAK

Regular Math

- Mardi Gras BREAK

**Thursday 2/15/24**

Algebra I

- Bellringer: Identify Key Features of a Graph
- We Will: Use the two symmetric points to find the vertex of the graph and then use these points to sketch the graph.
- Eureka Math<sup>2</sup> Module 4: Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form • I Will: Use symmetry to graph quadratic functions that cannot be factored over the integers.

Regular Math

- Bellringer: Determine Values in a Proportional Relationship
- We Will: Relate the unit rate of a proportional relationship to the slope of the associated line.

- Eureka Math<sup>2</sup> Module 4: Lesson 16: Proportional Relationships and Slope
- I Will: Find the slope of a line through the origin.

**Friday 2/16/24**

Algebra I

- Bellringer: Study for Quiz
- We Will: Ask any question regarding the study guide for quiz.
- Eureka Math<sup>2</sup> Module 4: Topic B Quiz (Lesson 5-12)
- I Will: Take the Eureka Math<sup>2</sup> Module 4: Topic B Quiz

Regular Math

- Bellringer: Create Equivalent Fractions
- We Will: Find slopes of rising lines by using slope triangles.
- Eureka Math<sup>2</sup> Module 4: Lesson 17: Slopes of Rising Lines
- I Will: Graph a rising line given the slope and a point on the line.

*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*