Student Teaching Practicum in Mathematics at Doherty Memorial High School

An Interactive Qualifying Project
Submitted to the Faculty of
WORCESTER POLYTECHNIC INSTITUTE
in partial fulfillment of the requirements for the
DEGREE OF BACHELOR OF SCIENCE

By
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Abstract

From January to May 2021, I student taught at Doherty Memorial High School in Worcester, Massachusetts through WPI's Teacher Preparation Program. I taught three classes: two sections of College Prep Algebra 1 to freshmen, and one section of College Prep Pre-Calculus to juniors and seniors. I strove for proficiency in the seven elements of the Candidate Assessment of Performance. My E-Portfolio contains evidence of this proficiency, as well as information on Worcester Public Schools and Doherty Memorial High School, instructional materials I have created, and my personal experience teaching.

Acknowledgements

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All content can be found on my E-Portfolio, at sites.google.com/view/beeler-eportfolio.

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Lesson Plan Title: Graphing inequalities	
Teacher Name: Em Beeler	**Subject/Course: Algebra 1**
Unit: Inequalities	**Grade Level: 9**

Overview and motivation for lesson: In this lesson, students will learn how to graph inequalities.

Stage 1-Desired Results

Standard(s): A.CED.1, A.REI.3

Aim/Essential Question: How can I visualize inequalities?

Understanding(s):
*Students will understand that . . .*inequalities can be graphed much like normal lines and used to visually identify possible solutions.

Content Objectives:
Students will be able to . . .
- Graph one inequality in point-slope form and identify range of solutions

Language Objectives:
ELD Level 2 e ll e le E l
- Identify when to use a dotted line and when to use a solid line

ELD Level 4 e ll e le E l
- Identify when to use a dotted line and when to use a solid line using full sentences

Key Vocabulary Inequality

Stage 2-Assessment Evidence

Performance Task or Key Evidence Students will graph inequalities in point-slope form

Key Criteria to measure Performance Task or Key Evidence Key evidence will include graphing the line correctly, shading the correct range of solutions and using the correct shading of the line

Stage 3- Learning Plan

Learning Activities:

Do Now/Bell Ringer/Opener: Review of homework due previously, introducing Ms Beeler (period 1). Students will complete a socio-emotional learning question.

Learning Activity 1: The teacher will review students on inequalities, and complete a chart discussing the differences in how inequalities are graphed. The teacher will model examples of each kind of inequality. Students will then move to a Desmos activity where they will practice graphing and shading inequalities on their own.

Learning Activity 2: Students will return to the main call to review their work. The teacher will then discuss graphing inequalities of the form y≥constant and x≥ constant and model an example. Students will return to the Desmos activity to try it on their own.

Application Students will be given multiple opportunities to apply what they have learned about graphing inequalities and test their own knowledge.

Summary/Closing The teacher will review the Desmos activity and remind students of the homework.

Multiple Intelligences Addressed:

☐ Linguistic	x Logical-Mathematical	☐ Musical	☐Bodily-kinesthetic
☐ Spatial	☐ Interpersonal	☐Intrapersonal	☐Naturalistic

Student Grouping

x Whole Class x Small Group ☐ Pairs x Individual

Instructional Delivery Methods

x Teacher Modeling/Demonstration	☐ Lecture	x Discussion
☐ Cooperative Learning	☐ Centers	x Problem Solving
x Independent Projects		

Accommodations	**Modifications**

Homework/Extension Activities: ALEKS

Materials and Equipment Needed:

Adapted from Grant Wiggins and Jay McTighe-*Understanding by Design*