

Differentiated Lesson Plan

Name: Diane Baker Grade: 9th
 Subject: Algebra I Planned Lesson Date: _____

<p>Lesson Objectives</p> <ul style="list-style-type: none"> • 2 or 3 student outcomes • Begin with verb 	<p>Lesson Objectives</p> <ul style="list-style-type: none"> • Write a two variable linear equation in point-slope form given the slope and a single point (x_1, y_1). • Graph the point-slope form of a linear equation.
<p>Nat'l / State Standards</p> <ul style="list-style-type: none"> • AL College & Career Ready Course of Study - Common Core • Learning Targets / District Standards • National Standards (NCTM; NCTE; etc) 	<p>AL Course of Study Objectives</p> <ul style="list-style-type: none"> • ALG1-B.12.2 - 4: Create and graph linear equations with two variables. Identify an ordered pair and plot it on the coordinate plane. • ALG1-B.20.5: Graph a linear equation. • ALG1-A.40.3: Define m as the rate of change in the context of a linear problem. <p>Learning Targets</p> <ul style="list-style-type: none"> • I can write a two variable linear equation in point-slope form given the slope and a single point (x_1, y_1). • I can graph a linear equation using the slope and a single point (x_1, y_1).
<p>Pre-Instructional Activities</p> <ul style="list-style-type: none"> • Review • Formative Assessment • Introductory Set • Prior Knowledge • Essential Questions • Problem Question • Writing Prompts • Predictions / Purpose • Vocabulary 	<p>Prior Knowledge</p> <ul style="list-style-type: none"> • Bell Work: Ask students to write down the coordinates of a single point and calculate the slope of the line displayed on the Promethean board. Ask the students if the slope changes when different coordinates are chosen. • Take attendance. • Introduce Learning Targets. <p>Review/Class Discussion</p> <ul style="list-style-type: none"> • Ask students what the slope of the line is. Then, ask them to identify some of the ordered pairs on the line. Ask the students if the slope changes when different coordinates are chosen and to explain why or why not. Expected response: the slope does not change since the rate of change remains constant.
<p>Teaching</p> <ul style="list-style-type: none"> • Direct Teaching • Graphic Organizers • Reading Instruction • Tech Integration • Teacher Demonstration • Guided Practice • Independent Practice • Small Group Activities • Experiential Activities • Research / Study • Simulations • Problem Solving Activities • Differentiated Instruction • Accommodations • Ongoing Assessment 	<p>Tech Integration</p> <ul style="list-style-type: none"> • Watch The Math Dude video on Unit 3.5: Point-Slope Form: www.montgomeryschoolsmd.org/departments/itv/MathDude/MD_Downloads.shtm. <p>Class Discussion</p> <ul style="list-style-type: none"> • Ask students what they learned from the video. Ask them to recall the three forms of a linear equation mentioned in the video. Record answers on the Promethean board. <p>Teacher Demonstration</p> <ul style="list-style-type: none"> • Using the Promethean board, demonstrate how to write a two variable linear equation in point-slope form given the slope and a single point (x_1, y_1). Then, demonstrate how to graph the linear equation using the slope and a single point (x_1, y_1). <p>Guided Practice</p> <ul style="list-style-type: none"> • Using the white board, ask student volunteers to demonstrate how to write two variable linear equations in point-slope form given the slope and a single point (x_1, y_1). Then, ask student volunteers to graph the equations. <p>Differentiated Instruction with Problem Solving Activities (includes Independent Practice and/or Small Group Work)</p> <ul style="list-style-type: none"> • Hand out class work/homework assignment. Review directions, point out reference sheet, and answer questions. Ask students to work individually or in pairs, choosing any 10 of the 15 problems to complete. If the activity proves to difficult for some students, there is an alternative assignment available for them to complete that includes a review of the information discussed in class.

	<p>Accommodations</p> <ul style="list-style-type: none"> A variety of learning activities are planned to accommodate the learning needs of the three students with disabilities (OHI – ADD, OHI – AD/HD, and SLD – reading comprehension skills). The ten-minute video lesson replaces the teacher lecture/textbook reading to accommodate the student who struggles with reading and the two students with attention deficit disorder, who have a difficult time staying in their seats. Completing practice problems on the whiteboard will give the attention deficit students a chance to be active learners and gives the student with reading problems a chance to learn by example rather than reading problem-solving steps in a textbook. The reference sheet is designed to benefit all students, particularly those with disabilities in the class. It summarizes the key points from the lesson, and it can be used as a study guide or a reference sheet during tests and quizzes. The problems on the class work/homework assignment are designed to be progressively more difficult, but the students only have to choose 10 of the 15 to complete. This activity is meant to be done either individually or in pairs, but the students with attention deficit problems will be paired with a partner to make sure they stay on task. Either the academic support teacher or I will work with the SLD – reading comprehension skills student to make sure she understands the directions, possibly highlighting key directional words or the problems that she will choose to solve. <p>Ongoing Assessment</p> <ul style="list-style-type: none"> While students work on the assignment, provide instructional support and re-teach mathematical concepts, as needed.
<p>Closure</p> <ul style="list-style-type: none"> Summary / Conclusions Re-teaching Formative Assessment Review Reflection 	<p>Reflection</p> <ul style="list-style-type: none"> Distribute Exit Slips and ask students to answer the following questions: Name two things you learned about linear equations. Name one thing you found difficult or confusing today. Collect Exit Slips when students are dismissed. <p>Re-teaching</p> <ul style="list-style-type: none"> Post The Math Dude video on Unit 3.5: Point-Slope Form, the screen and sound recordings of the activities on the Promethean board, and a copy of the assignment on the class website.