

Sample Lesson Plan – Algebra 1

Concept: Parallel Lines, Algebra 1

Standards/Rationale: 111.39 (c) (2) (E)

Learning Target	Assessment
Given 15 points and equations, the learner will identify the parallel line with 60% accuracy.	Equation Activity/Worksheet

Materials:

- Notecards
- Equation Activity/Worksheet
- Map of the surrounding and familiar area laid over a grid
- Projector
- Whiteboard space

Vocabulary (for use in Vocabulary Word Wall):

- Parallel Lines
- Perpendicular Lines
- Coordinate Plane
- Coordinate Point
- Line
- Graph
- Equation
- Slope
- Reciprocal

	The teacher will:	The student will:
Focus/Mental Set	Ask the Following Questions: <ul style="list-style-type: none"> - Which of these shapes is a parallelogram? - Are these parallel lines? Why or why not? <ul style="list-style-type: none"> - $y=10x+4$ and $y=4x+10$ - What is the equation of a line parallel to $y=3x+5$ that passes through the point (1,7) 	Answer the Questions (Showdown) <ul style="list-style-type: none"> - (Answer) B - (Answer) No, because they have a different slope - (Answer) $y=3x+4$
Teacher Input	<ul style="list-style-type: none"> - How do I know that a point resides on a line? - Follow me through this problem <ul style="list-style-type: none"> - $y=5x-2$ through the point (2,5) - Sub Question: What do we know about the slopes of two parallel lines? - Offer 1-3 problems for the students to work on the board <ul style="list-style-type: none"> - $y=4x+3$ through the point (2,6) - $y=1/2x+3$ through the point (4,2) - $2y-4x=1$ through the point (-3,5) - Sub Question: What is different about this problem? 	<ul style="list-style-type: none"> - Respond to Question - Fill out interactive notes <ul style="list-style-type: none"> - (Answer) $y=5x-5$ - Respond to Question - In groups, work a 1-3 problems on the board <ul style="list-style-type: none"> - (Answer) $y=4x-2$ - (Answer) $y=1/2x$ - (Answer) $y=2x+11$ - Respond to Question

	The teacher will:	The student will:
	<ul style="list-style-type: none"> - Sub Question: What can we do to change the format of this problem to make it look like what we are familiar with? - Identify and Clarify Problem Areas, Redirect students - Answer Questions when needed 	<ul style="list-style-type: none"> - Respond to Question & reformat the problem (to $y=2x+1/2$) - Identify areas in need of improvement - Ask questions where needed
Guided Practice	<p>ESL Strategy: Contextualize the Vocabulary here by relating the concepts to knowledge of streets in this Guided Practice</p> <ul style="list-style-type: none"> - Picture of the surrounding area, with an overlay of mathematical grid. Mark a single street with an equation. Propose the following word problem: I am driving down ABC street but there is a huge accident when I arrive at XYZ street. What is the equation of another street that would take me in the exact same direction that I was originally going? (Work in groups) - NOTE: Each group could come up with a different equation, depending on the street they chose. 	<ul style="list-style-type: none"> - Identify the Equation of the street I was traveling on - Identify a point on a parallel street - Solve to find the equation of the parallel street.
Independent Practice	Prepare and Distribute Equation Activity	Complete Equation Activity (Assessment)
Closure	Observe the students Be available to answer questions	With a partner, create a problem for another pair to solve, containing a point and an equation. Work in groups to discuss your answers.

Modifications & Accommodations:

- 504 Disability: ADHD/ADD
 - Seat the student near the teacher or provide a peer tutor/helper
 - During teacher input, ensure to ****star**** important information
 - Prior to Guided and Independent practice, or Closure have students restate directions
 - Use a timer to challenge student to answer a certain amount of problems correctly, in a certain amount of time
 - Ensure to reward the student when accomplished
 - Allow flexible sitting/standing options for the student during class time
- 504 Disability: Arthritis
 - Record teacher input & provide outlines of notes to fill in
 - Provide Google Classroom versions of worksheets and allow for use of a computer
 - Allow for flexible seating during class time to ensure a more comfortable style of desk
 - Implement extra movement to avoid stiffness
 - rotation of group members during showdown structure
 - make sure each member of the group gets up to work guided practice
 - have students stand and mix up during closure portion of the lesson

- IEP Disability: Visual Impairment
 - Allow student preferential seating with option of desktop slant
 - Adjust lighting as appropriate for student (Lamps, Dimmers, etc)
 - Record teacher input & provide *enlarged* outlines of notes
 - Work with a group of peers a separate problem on the side board rather than participating with the class in the stated guided practice to avoid confusion due to depth perception issues and the amount of small lines on the map and grid overlay.