

AGENDAS FOR THE WEEK: 10/12 – 10/16

One-sentence summary of the week's lessons/learning goals: Students will develop their understanding of linear functions by identifying and comparing slopes, determining key features of a line, writing equations, graphing linear functions from equations and tables, and evaluating functions using given inputs.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
(Include times for each part of your lesson)	Objective(s): SWBAT - Identify and compare the slopes of two lines. - Explain how two lines can have the same slope but appear in different positions on a coordinate plane. - Identify the slope, x-intercept, and y-intercept of a line and use this information to determine its equation. MAFS/NGSSS: MA.912.AR.2.4: Given a table, equation, or written description of a linear function, graph that function and determine and interpret its key features.	Objective(s): SWBAT - Use a given slope and point to determine another point on a line. - Identify the slope and y-intercept from an equation. - Graph a linear function using its equation. MAFS/NGSSS: MA.912.AR.2.4: Given a table, equation, or written description of a linear function, graph that function and determine and interpret its key features.	Objective(s): SWBAT - Evaluate functions using given input values. - Complete tables of values for functions. - Graph linear functions using ordered pairs from a table. - Review previously learned concepts in preparation for Thursday's quiz. MAFS/NGSSS: MA.912.F.1.2: Given a function represented in function notation, evaluate the function for an input in its domain. For a real-world context, interpret the output. MA.912.AR.2.4: Given a table, equation, or written description of a linear function, graph that function and determine and interpret its key features.	Objective(s): SWBAT - Evaluate expressions and functions using given input values. - Complete tables of values. - Identify key features of a line, including slope and intercepts. - Graph linear functions accurately. MAFS/NGSSS: MA.912.F.1.2: Given a function represented in function notation, evaluate the function for an input in its domain. For a real-world context, interpret the output. MA.912.AR.2.4: Given a table, equation, or written description of a linear function, graph that function and determine and interpret its key features.	Objective(s): SWBAT NO SCHOOL MAFS/NGSSS:

P	Engage (10 minutes) Bellringer: - Students will complete two problems reviewing content from the previous week. - After working independently, volunteers will solve the problems on the board. - Students will compare their answers, ask questions, and discuss their classmates' strategies.	Engage (~10 minutes) Bellringer: - Students will complete two to three problems reviewing previously learned content. - After students work independently, volunteers will present their solutions on the board. - Classmates will compare answers and ask questions to clarify their understanding.	Engage (5 minutes) - The teachers will introduce the structure of the class and explain that the first half will focus on function tables and graphing, while the second half will be dedicated to quiz review.	Engage (20 minutes) Quiz Review: - Students will complete review problems covering the evaluation of expressions and functions, tables of values, key features of a line, and graphing linear functions. - After students have worked independently, volunteers will present their solutions on the board. Students will compare answers and ask questions to clarify any remaining misunderstandings.	Engage -
L A	Explore (15 minutes) Same Slope, Different Lines - Each student will receive a graph containing a line. Students will identify the slope of their assigned line and move around the classroom to find a classmate whose graph has the same slope. Once students find their match, they will sit together and complete a worksheet comparing the similarities and differences between their two graphs.	Explore (15 minutes) Work with the Slope - Students will receive a worksheet containing three coordinate planes, each with one point already plotted. For each graph, students will be given a slope, such as 4, and will determine where another point could be placed so that the line follows the given slope. - Students will attempt the problems independently using their prior knowledge before the teachers	Explore (35 minutes) Function Tables (First Half of Class) - Students will work with function tables containing given input values. They will evaluate the function using the provided x-values, complete the table of values, and use the resulting ordered pairs to create a graph. - This activity will allow students to practice connecting function notation, numerical outputs, tables, and graphs.	Elaborate (45 minutes) - Students will independently complete a short quiz assessing their understanding of evaluating expressions and functions, completing tables of values, identifying key features of a line, and graphing linear functions.	Explore Explain Elaborate

	- Before students begin, I will work through an example with the class to review how to identify the slope of a line. - The goal of this activity is for students to recognize that two lines can have the same slope but look different because they may have different y-intercepts. Explain (15-20 minutes) Notes - Students will continue exploring the key features of a line. Building on their previous learning about slope, the notes will focus on identifying the x-intercept and y-intercept and determining the equation of a line. Elaborate - Students will complete a worksheet containing different line graphs. - For each graph, they will identify the slope and y-intercept and use that information to determine the equation of the line. - Students may work collaboratively, use their notes, and ask teachers for help. An	introduce the formal steps. - This activity will help students explore the relationship between slope, points, and the direction of a line. Explain (20 minutes) - Students will use the same worksheet from the thinking activity to record the steps needed to determine additional points on a line using a given slope. - The notes will establish a clear process that students can reference throughout the chapter when identifying slope and y-intercept from an equation and using those features to graph a line. Elaborate (35 minutes) - Students will complete a worksheet containing blank coordinate planes and equations of lines. Working backwards and using the equation, students will identify the slope and y-intercept and then graph the line. - Students may use their notes, collaborate with classmates, and ask teachers for help. An answer sheet will be available at the front of the classroom for students to check their	Elaborate (35 minutes) Quiz Review (Second Half of Class) - Students will participate in a review session in preparation for Thursday's short quiz. The review will cover evaluating expressions and functions, completing tables of values, identifying key features of a line, and graphing linear functions. - Students will work through review problems and ask questions about concepts they find challenging.		
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	answer sheet will be available at the front of the classroom so students can check their answers. The emphasis will be on showing their work and explaining their process rather than simply obtaining the correct answer.	work. Students will be expected to show their steps and demonstrate how they used the equation to create the graph.			
N	Evaluate and Summary - The teachers will monitor students' progress, answer questions, and review their work to assess their understanding of slope, intercepts, and equations of lines. Students will be encouraged to explain how they identified each feature and how they used that information to determine the equation.	Evaluate and Summary - The teachers will monitor students' graphs and written work to determine whether they can correctly identify slope and y-intercept and use those features to graph a line. - Students will be encouraged to explain their reasoning and correct mistakes as needed.	Evaluate and Summary - The teachers will check students' completed tables and graphs and monitor their participation during the review. Student responses and questions will help identify areas that may need additional clarification before the quiz.	Evaluate and Summary - The teachers will use students' quiz responses to evaluate their understanding of the week's learning objectives and identify concepts that may require additional practice or reteaching.	Evaluate and Summary
Resources:	- Bellringer problems reviewing content from the previous week. - Printed line graphs for the slope-matching activity. - Slope-matching and graph-comparison worksheet. - Notes on the x-intercept, y-intercept, and equation of a line. - Worksheet with line graphs for identifying	- Bellringer problems reviewing previously learned content. - Coordinate-plane worksheet with three graphs, each containing a starting point. - Notes and guided examples on using slope and a point to identify additional points on a line. - Worksheet with equations of lines and blank coordinate planes for graphing.	- Function tables with given input values. - Worksheets for evaluating functions and completing tables of values. - Coordinate planes for graphing ordered pairs. - Review problems covering function evaluation, tables of values, key features of a line, and graphing linear functions. - Student notes and whiteboard for	- Review problems covering evaluating expressions and functions, tables of values, key features of a line, and graphing linear functions. - Short quiz assessing the week's learning objectives.	

	slope, y-intercept, and equations. - Posted answer sheet for checking worksheet answers.	- Posted answer sheet for checking worksheet answers.	reviewing examples and answering questions.		
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Questions to ask students during lesson:

- Can two lines have the same slope but be different lines? Why?
- How can you identify the x-intercept and y-intercept of a line?
- How can slope and the y-intercept help you determine the equation of a line?
- If you know a point and the slope of a line, how can you determine another point on that line?
- How can you use the slope and y-intercept from an equation to graph a line?
- When evaluating a function, how do you determine the output for a given input?
- How can you use a table of values to graph a linear function?
- Why is it important to show your mathematical work, even when your final answer is correct?

Misconceptions or identified areas where students will struggle:

- Students may calculate slope incorrectly or confuse the change in y with the change in x.
- Students may assume that two lines with the same slope must be the same line, rather than recognizing that they can have different y-intercepts.
- Students may confuse the x-intercept with the y-intercept.
- Students may struggle to identify slope and y-intercept from an equation.
- Students may have difficulty using a given slope to determine another point on a line, especially when deciding whether to move up, down, left, or right.
- Students may plot points incorrectly when graphing a line from an equation.
- Students may struggle with substituting input values correctly when evaluating functions.