

Sample Activity List: Algebra

Type	Activity	Time
Identifying and Representing Functions		
Choose 1 to complete	<ol style="list-style-type: none"> 1. Use the Identifying and Evaluating Functions <i>how-to sheet</i> (located in the <i>resource area</i>) to answer the questions from page 121 in your textbook. 2. Then, check your answers using the answer key in the back of the textbook. 3. Finally, write a description of any errors you made and how you will correct them for the next time. 	20 min
	Work independently to watch the Edpuzzle video on Evaluating Functions and complete the corresponding questions. Record all the questions you answer incorrectly and any important notes in your math journal.	15 min
Choose 1 to complete	Work in a small group to complete the Input and Output Function Machines <i>learning center</i> , located in the <i>resource area</i> . <ol style="list-style-type: none"> 1. Find 3–4 people to work with. 2. Follow the instructions on this protocol. 	30 min
	Work independently or with a partner to follow the steps on the <i>how-to sheet</i> below: <ul style="list-style-type: none"> • Identifying a Function Using Domain and Range Record each step and any important notes in your math journal.	20 min
Optional	Create a function for a partner to evaluate and check their solution. (Be sure to include exponents.)	10 min
Functions, Slopes, and Intercepts		
Required	Work with a partner or in a small group to complete the Intercepts <i>learning center</i> .	20 min
Choose 1 to complete	Work with a partner or independently to watch this video to learn how to graph functions. Then, independently, graph two functions of your own in your math journal.	10 min
	Work independently or with a partner to follow the steps on the <i>how-to sheet</i> below: <ul style="list-style-type: none"> • Graph Functions Using the <i>y-intercept</i> and Slope Record each step and any important notes in your math journal.	10 min
Choose 2 to complete	Choose two or more activities below to complete: <ul style="list-style-type: none"> • Function Detective — Independently, analyze different scenarios, tables, and graphs to determine if they represent functions. • Graph a Story — Work independently or with a partner to sketch graphs based on various scenarios. • Function Poster — Work independently or with a partner to create a poster for a linear or nonlinear function. Be sure to include the function's equation, a table of values, a graph, and a real-world scenario that fits the function you choose. 	30 min

Optional	Vertical Line Test: Test your knowledge of vertical lines. Record your final score and any questions you answer incorrectly in your math journal.	15 min
Required	Complete the functions assessment/mid-point check. *If you score below 75%, attend a <i>small-group mini-lesson</i> or complete additional learning activities above.	15 min
Choose 1 to complete	Work independently to graph the given functions and in your math journal, and record which one(s) you would rather ski down, and why. Include the following keywords in your reflection: <i>incline</i> , <i>steepness</i> , and <i>rate of change</i> .	15 min
	Work with a partner or in a small group to graph the given functions and discuss which one(s) you would rather ski down, and why. Include the following keywords: <i>incline</i> , <i>steepness</i> , and <i>rate of change</i> .	15 min
Required	Answer the following reflection questions in your math journal: <ul style="list-style-type: none"> • With which concepts did you have the most success? • With which concepts do you feel like you still need practice? • What questions do you still have? 	10 min