



















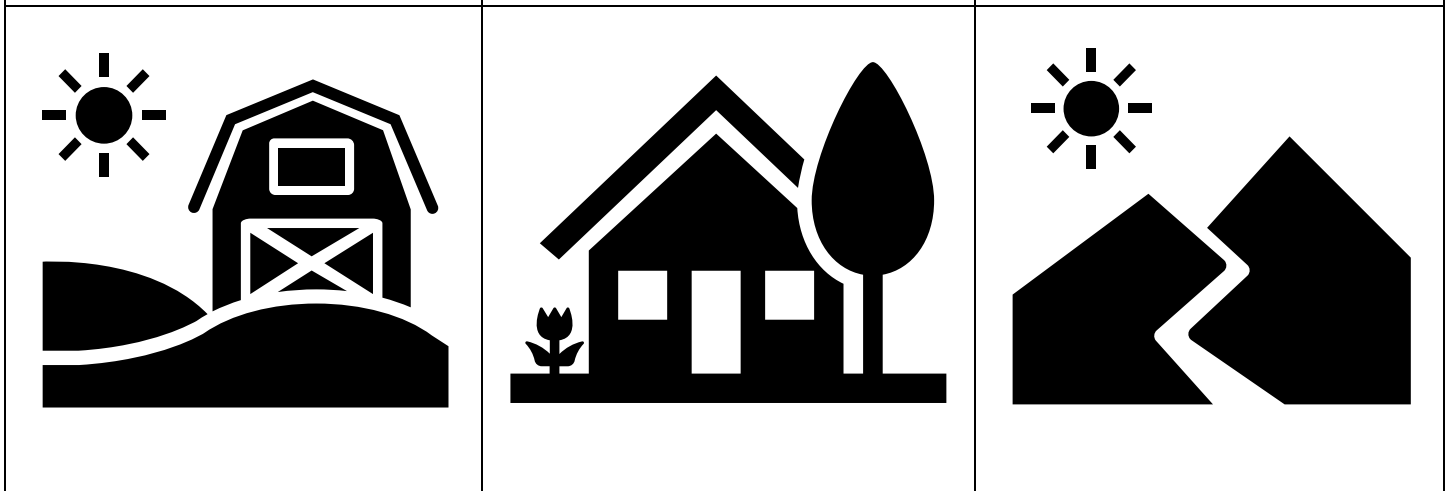
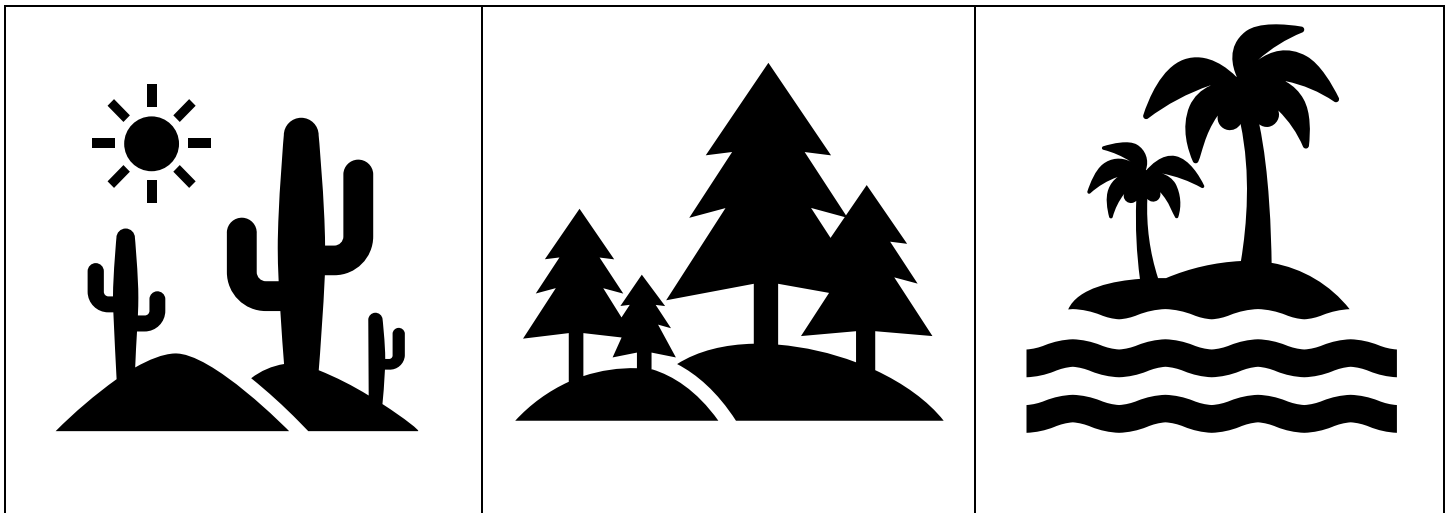
NAME _____

DATE _____

COMPOSITION SAFARI

						-1	1	-2	3	-3	2
Ice Cream	Apple	Taco	Pizza	Donut	Grape						
						-1	1	-2	3	-3	2
Ice Cream	Apple	Taco	Pizza	Donut	Grape						




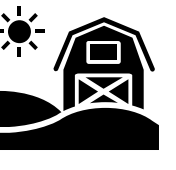

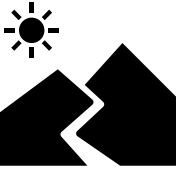
	$h(x)$ Hamster		$s(x)$ Snake		$r(x)$ Rooster
	$p(x)$ Panda		$t(x)$ Tiger		$g(x)$ Giraffe



Part 1 Composition Safari Instructions:

1. Cut out the foods, numbers, animals, functions, and environments on the first page.
2. For each environment, assign it an animal (it doesn't have to make ecological sense)
3. Put the "animal" in the "environment" by stacking the papers together (we will deal with the foods and numbers in a later step)

Once you have these assignments, proceed to the next steps: Each environment has been assigned a function. You now need to compose the "animals" into the "environment"! (left side put the function notation, right side put the literal animal cut out!)







	$d() = 2() - 4$
	$w() = ()^2 - () + 3$
	$b() = 5()$
	$f() = \sqrt{()} - 1$
	$n() = 4 - ()$
	$m() = ()^2 + 2$

PART 2 – Now that you have your new functions...

What if I then told you that each of these “animal functions” are attached to an equation? (see below)

Use these functions below and replace the *ANIMALS* with their associated functions on the previous page.

(under each animal, WRITE IN the corresponding highlighted section)

	$h(x) =$	$x + 3$		$p(x) =$	\sqrt{x}
	$s(x) =$	$2x + 1$		$t(x) =$	$x - 1$
	$r(x) =$	x^2		$g(x) =$	$3x$

Congratulations! You have now created “compose functions”! Now we are going to evaluate them at different x-values.







The x-values are represented by the “food” that the animals eat! Decide which food item you want each “animal” to eat.

Put the food item on top of every “x” in that particular function. (w(x) will require 2 identical food items for both x values)

Find the “number” that corresponds to each food item. Place it on TOP of the food item it is associated with.

When doing the math below, on the side write which animal and food item was plugged in.

Now do the math below:

Environment	Animal	Food	Equation with everything plugged in	Answer
			$d() = 2() - 4$	
			$w() = ()^2 - () + 3$	
			$b() = 5()$	
			$f() = \sqrt{()} - 1$	
			$n() = 4 - ()$	
			$m() = ()^2 + 2$	

Part 3 – Reflection

Composition in math is when you replace the independent variable with another function completely. Sometimes, you then replace all the independent variables with a number as well.

How do the representations of the environment, animals, and food compare to what composition is?

How did learning composition with photo representation help you?

Do you feel more comfortable with composition now? Why or why not?

What does “math is not a spectator sport” mean to you?