BUILD A ZOO

Project Based Learning

2nd Grade
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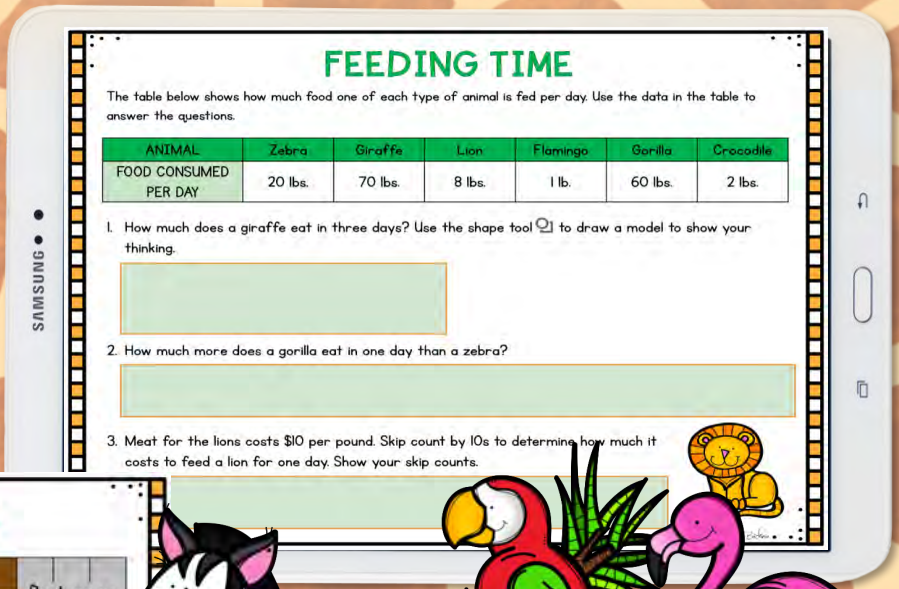
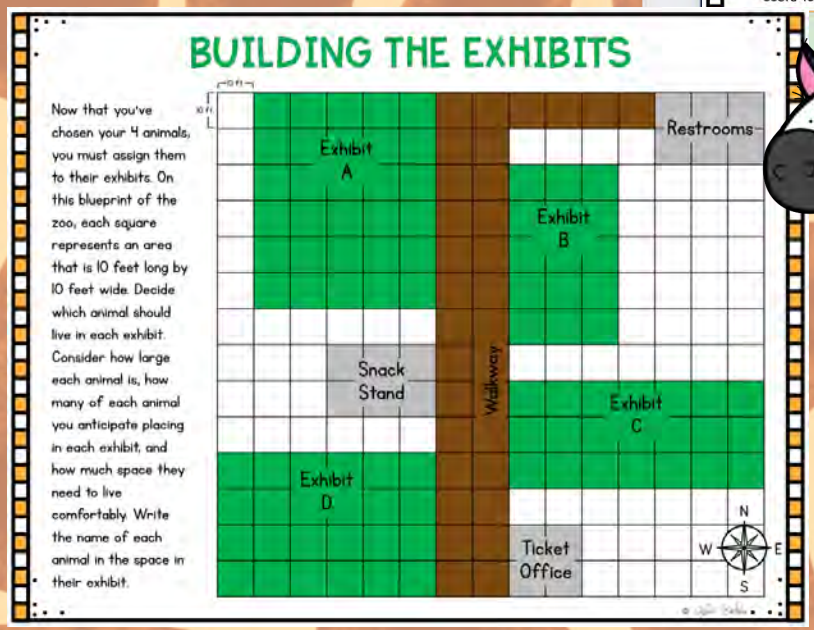
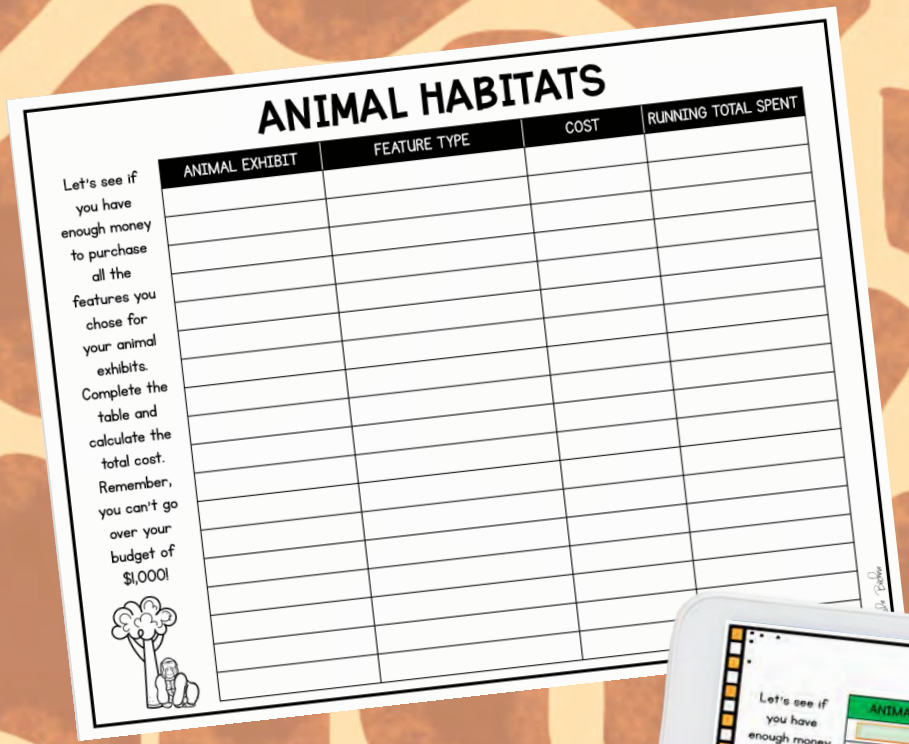
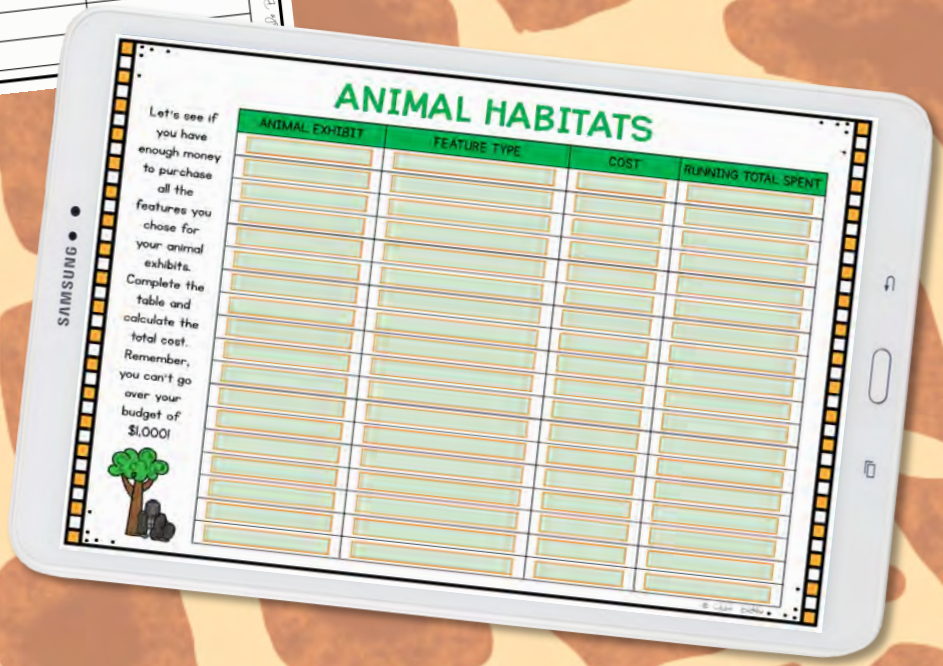




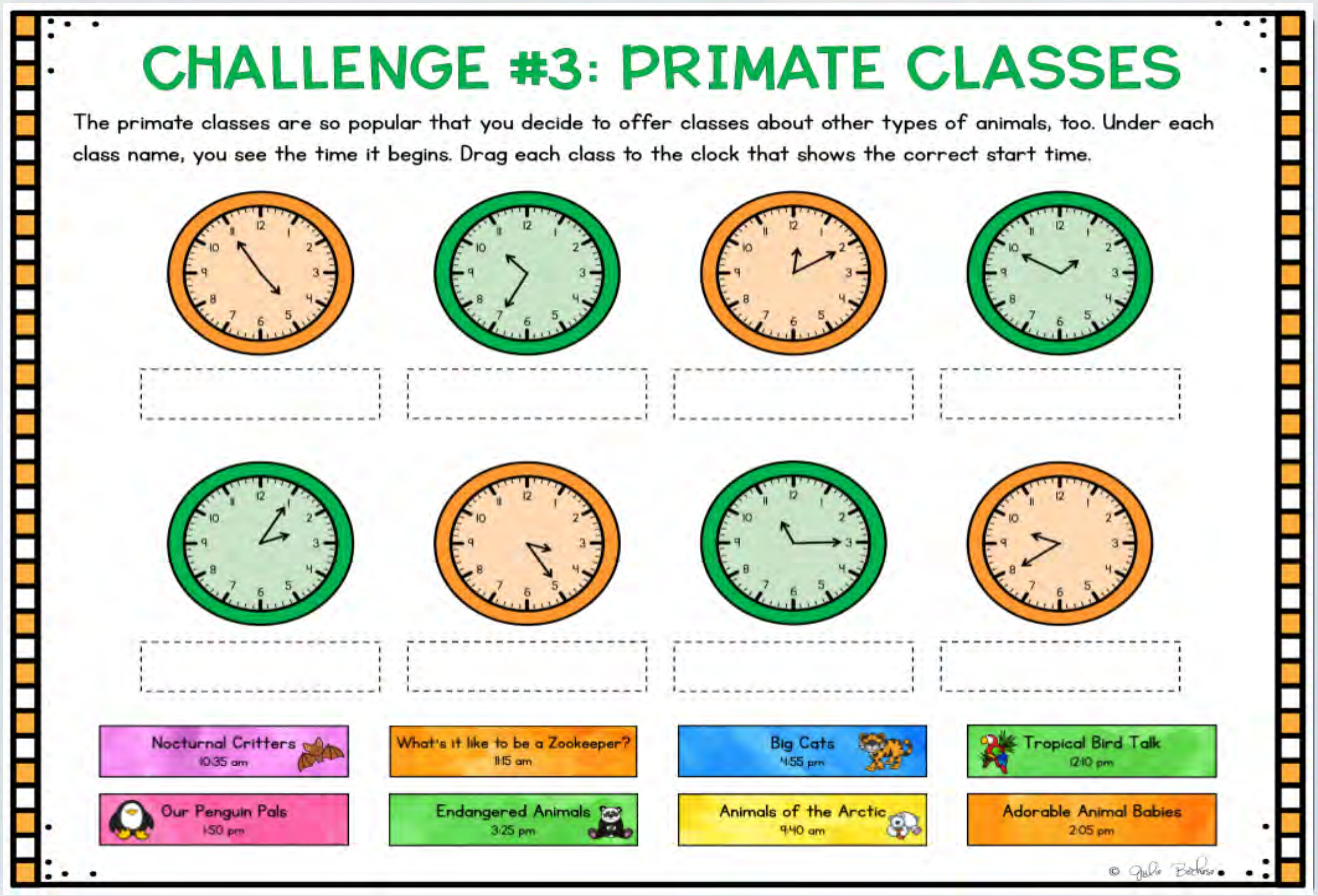
MagiCORE

Print & Digital Versions





Aligned to CCSS Math Standards



Interactive Elements

ANIMAL HABITATS

You have $1,000 to decorate the animal exhibits. Below are the different features you can purchase for the exhibits. You can purchase more than one of each feature. Consider what you learned about the animals' natural habitats, how much space is within each exhibit, and the budget. Drag an animal icon to each feature you would like in their exhibit. On the following slide, you will make a list of features to purchase and calculate the cost.

Watering hole
$120

Colorful plants
$40

Sand
$50

Bush
$60

Tree
$100

Climbing rocks
$80

Tall grass
$60

Tree trunk
$70

Hanging vine
$30

Short grass
$50

Drag me

Realistic Scenarios

FEEDING TIME

The table below shows how much food one of each type of animal is fed per day. Use the data in the table to answer the questions.

ANIMAL	Zebra	Giraffe	Lion	Flamingo	Gorilla	Crocodile
FOOD CONSUMED PER DAY	20 lbs.	70 lbs.	8 lbs.	1 lb.	60 lbs.	2 lbs.

1. How much does a giraffe eat in three days? Use the shape tool to draw a model to show your thinking.

2. How much more does a gorilla eat in one day than a zebra?

3. Meat for the lions costs $10 per pound. Skip count by 10s to determine how much it costs to feed a lion for one day. Show your skip counts.

CHALLENGE #2: SNACK STAND

One of the ways you earn money at your zoo and keep your visitors happy is by running a snack stand. The menu for the snack stand is below. Answer the questions.

Soda	$2
Hotdog	$3
Popcorn	$1.50
Pretzel	$2.25
Popsicle	$1

1. It costs the zoo $1 to buy each hotdog from the hotdog supplier. The hotdogs come in packages of 12. What is the zoo's profit per package of hotdogs?

2. Mikhail buys some food at the snack stand for him and his family. He spends exactly $7.25. What combination of snacks could Mikhail have purchased?

3. Jonah has one $1 bill, three quarters, four dimes, six nickels, and seven pe
popsicle and a popcorn. Does Jonah have enough money? Explain.

CHALLENGE #1: REPTILE HOUSE

Your zoo is a huge success! You want to expand by building a reptile house. Your zookeepers have given you strict instructions about requirements for the reptile exhibits. Build a blueprint of the reptile house below. Each square represents an area that is 1 foot by 1 foot. Use the shape or line tools to draw the exhibits of each reptile. Use the textbox tool to label the exhibits. Length measurements run up and down. Width measurements run left to right.

1. The boa constrictor exhibit needs to be 5 feet long by 5 feet wide.
2. The two-horned chameleon and the Asian box turtle bath need exhibits with lengths of 4 feet, but they must have different widths.
3. Each fire-bellied toad needs 1 foot of length and 1 foot of width in the exhibit. You have 4 fire-bellied toads inside the exhibit.
4. The sum of all the sides of the poison dart frog exhibit must be 8 feet.
5. The Borneo python must be in an exhibit that is in the shape of an "L." Its width at the widest point must be at least 6 feet.

Challenge Activities for Differentiation

Applicable to Real World & Fun!

FEEDING TIME

With the animals settled in their new exhibits, it is mealtime at the zoo! You want to ensure that each animal's diet is the same as what they might eat in the wild. Using the resources below, research what each type of animal eats so you know what type of food to buy. Take notes on what you learn.

ANIMAL #1

RESOURCES:

San Diego Zoo

National Geographic Kids

A-Z Animals

ANIMAL #2

ANIMAL #3

ANIMAL #4

Integrated Word Problems & Representations

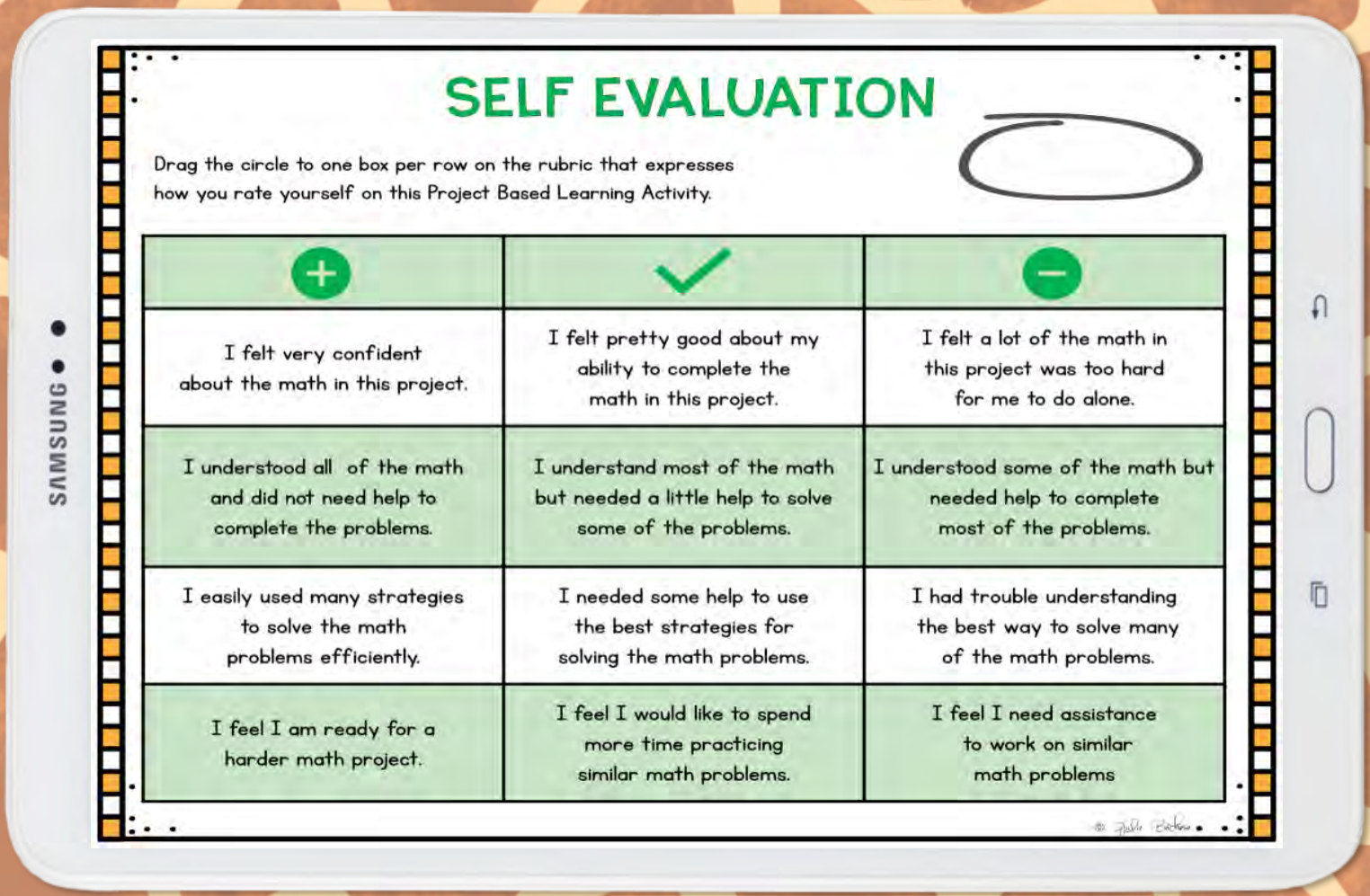
BUILDING THE EXHIBITS

4. You decide that the animals in Exhibit B need more space. You expand the width of the exhibit 10 feet. What is the new width of Exhibit B?

5. You purchased 500 feet of fence to install around the exhibits. You install 220 feet of fence around Exhibit A. How many feet of fence do you have left? Use the shape tool to draw a diagram to show your thinking.

6. You build a zookeeper's hut behind the snack stand. The hut must not touch the snack stand or any of the animal exhibits, but you want it to be as big as possible. On the blueprint, use the shape tool to draw the zookeeper's hut. What is the width of the hut in feet? What is the length?

Student Self-Reflection



+	✓	−
I felt very confident about the math in this project.	I felt pretty good about my ability to complete the math in this project.	I felt a lot of the math in this project was too hard for me to do alone.
I understood all of the math and did not need help to complete the problems.	I understand most of the math but needed a little help to solve some of the problems.	I understood some of the math but needed help to complete most of the problems.
I easily used many strategies to solve the math problems efficiently.	I needed some help to use the best strategies for solving the math problems.	I had trouble understanding the best way to solve many of the math problems.
I feel I am ready for a harder math project.	I feel I would like to spend more time practicing similar math problems.	I feel I need assistance to work on similar math problems