

Dinner at the Zoo

Standard:

- Convert units of measure in the customary system (Weight)

Task: You are working at a small zoo. The director has put you in charge of ordering food for the 8 zebras and 10 chimpanzees. You need to place an order for enough grain, hay, and chimpanzee food to last the month of April. Make sure you show your conversions.

He has given you the following information:

Zebra Data

Average weight of a zebra: 600 pounds

Average amount of food eaten by a zebra each day: 10 lbs of grain and 20 lbs of hay

A hay bale weighs a ton and costs \$50

A 50-pound bag of grain costs \$8

A ton of grain costs \$300

Chimpanzee Data

The chimpanzees weigh about 35 pounds and 4 ounces each.

Chimpanzees require 8 ounces of food per day for every pound of their weight.

Chimpanzee food costs \$2 per pound.

1. How many days are in April?
2. How much grain, hay, and chimpanzee food will you need to order? Show how you know you will have enough food for the animals.
3. What would be the least amount of money you would need to spend?
4. What happens to a measurement when we change units?

5. What strategies are you using to organize your thinking about this task?

6. Why is it important to know the relationship of ounces, pounds and tons?

At the Zoo, each giraffe eats the following amount of food every day. There are 5 giraffes at the zoo. Giraffe: (each)

- Herbivore pellets 9 pounds
- Alfalfa hay 5.5 pounds
- Timothy hay 5.5 pounds
- Apples 3 ounces
- Onions 4 ounces
- Bananas 1 ounce
- Yams 3.5 ounces
- Carrots 2 ounces
- Red beets 1.5 ounces
- Browse (tree leaves) 35 ounces

7. How many total pounds of food does a giraffe eat on any given day? What is this number as pounds and ounces?

8. How many pounds of fruit and vegetables will the giraffes eat during the months of April and May? (Round to the nearest whole number)

9. How many tons of hay, herbivore pellets and browse will the giraffes eat during the months of April and May? (Round to the nearest hundredth)

10. How could ratio tables help you with this?

Criteria	+	✓	△
Set-up	The set ups of the conversions were accurate with all numbers in the correct places		The set ups of the conversions were inaccurate. Some numbers were in the wrong spots
Converting units	Correctly answered questions 2, 7,8 and 9. Conversions were shown	Correctly answered three of the questions (2,7,8 and 9) conversions were shown	Correctly answered less than 3 of the questions (2,7,8 and 9) OR no conversions were shown
Thought Process	Effective thought process was seen through the answers of the other questions	Thought process was seen through the answers of the other questions. Thought process was either not effective, or inaccurate	Thought process was not seen through the answers of the other questions

