

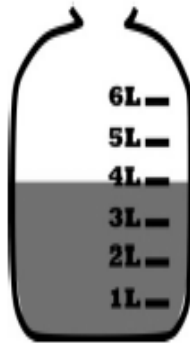
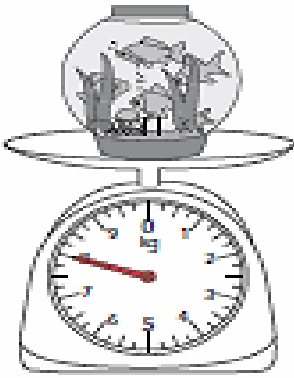
UNIT 7 GOALS

- Measure and estimate liquid volumes and masses of objects using standard units of grams, kilograms, and liters.
- Draw a scaled picture graph and a scaled bar graph to represent data.
- Solve real world math problems involving perimeters of polygons, including finding an unknown side length.

Measuring with scales and beakers.

Students will learn how to read a scale.

The fish bowl weighs about 8kg. The beaker holds about 4L of liquid.



VOCABULARY

Gram – a metric unit of mass. One paper clip has a mass of about 1 gram.

Kilogram – a metric unit of mass. 1 kilogram = 1,000 grams.

Liter – a metric unit used to measure liquid volume (capacity). 1 liter = 1,000 milliliters.

Picture Graph – a graph that uses pictures or symbols to represent data.

Bar Graph – a graph that uses bars to show data. The bars may be horizontal or vertical.

Perimeter – the distance around the outside of a figure.

Line Plot – a diagram that shows frequency of data on a number line.

Estimate Weight & Liquid Capacity



Students will learn how to estimate how much an item weighs. A small dog weighs about 4 kg. A bottle of soda is about a liter.

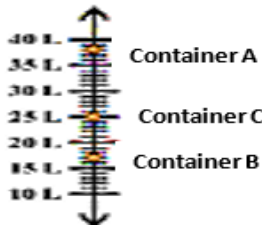


Solve word problems involving measurement.

What is the difference between the capacity of Container A and Container C?

- Look at the number and record the amount of each container.

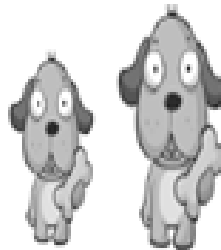
Container A	38L
Container B	17L
Container C	25L



- Subtract the amount in Container A from the amount in Container C to find the difference.
 $38L - 25L = 13$

The difference is 13L

Jesse has two dogs. He feeds one dog 25g of food and the other 35g of food. How much dog food does Jessie feed his dogs?



$$25g + 35g =$$

5 30

$$30 + 30 = 60g$$

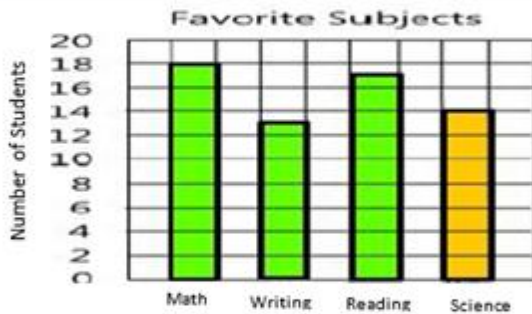
Jessie feeds his dogs 60g of dog food.

Generate and Analyze Categorical Data

Students will have to collect data and create a bar graph using the data collected. They will learn how to understand a table and create a bar graph from that information.

This table shows the favorite subjects for 62 third-graders at Houston Elementary. How many students chose math as their favorite subject?

Favorite Subjects	
Subject	Number of Students
Reading	18
Writing	13
Science	17
Math	?



Students will look at the table and bar graph to answer questions about the data.

How many students voted for Math? *14 students*

How many more students preferred Reading than Science? *1 more student*

All third graders should be able to fluently multiply and divide within 100 by the end of the year. Keep practicing!



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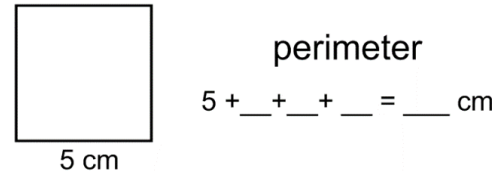
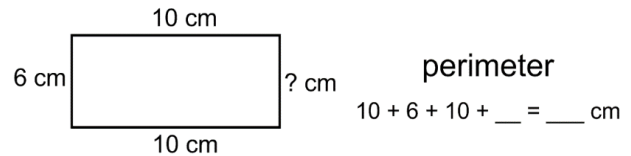
Students solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Perimeter

The **perimeter** is the total distance around the outside of a 2D shape.



Find the perimeter of the following figures.



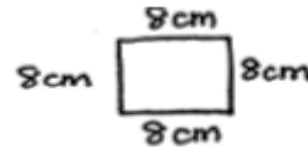
Things to Remember

Area of Rectangle = length x width

Perimeter of Polygon = sum of the lengths of all the sides

Elijah draws a square that has side lengths of 8 centimeters.

- a. Estimate to draw Elijah's square, and label the side lengths.



- b. What is the area of Elijah's square?

$$8 \text{ cm} \times 8 \text{ cm} = 64 \text{ sq. cm}$$

The area of Elijah's square is 64 sq. cm.

- c. What is the perimeter of Elijah's square?

$$8 \text{ cm} + 8 \text{ cm} + 8 \text{ cm} + 8 \text{ cm} \text{ or } 4 \times 8 \text{ cm} = 32 \text{ cm}$$

The perimeter of Elijah's square is 32 cm.