

Unit 5, Activity 1, Customary and Metric Vocabulary Self-Awareness

Look at the vocabulary word. Indicate your knowledge of the word using a +, √, or –. A plus sign (+) indicates a high degree of comfort and knowledge, a check mark (√) indicates uncertainty, and a minus sign (–) indicates the word is brand new to you. Give an example or definition for the term even if you have to guess.

Word	+	√	–	Example	Description
length					
inch					
foot					
yard					
mile					
millimeter					
centimeter					
meter					
kilometer					
capacity					
fluid ounce					
cup					

Unit 6, Activity 1, Customary and Metric Vocabulary Self-Awareness

Word	+	√	–	Example	Description
pint					
quart					
gallon					
liter					
milliliter					
weight					
mass					
gram					
pound					
ounce					
kilogram					
ton					

Unit 5, Activity 1, Measurement Chart

Linear Measurement

Metric System	U. S. Customary System
1 millimeter is about the thickness of a dime.	1 inch is about the length of a small paper clip
1 centimeter is about the thickness of a crayon	1 foot is about the length of a license plate
1 meter is about the width of a front door	1 yard is about the width of a front door
1 kilometer is about the length of 10 football fields	1 mile is about the length of 15 football fields
Metric Units	Customary Units
10 millimeters = 1 centimeter	1 foot = 12 inches
100 centimeters = 1 meter	1 yard = 3 feet
1,000 meters = 1 kilometer	1 yard = 36 inches
	1 mile = 5,280 feet
	1 mile = 1,760 yards

Abbreviations of linear measurements according to size from smallest to largest:

mm (millimeter) cm (centimeter) in. (inches) ft (foot) yd (yard)
 m (meter) km (kilometer) mi (mile)

Weight Measurement

Customary Units	Metric Units
1 pound = 16 ounces 1 ton = 2,000 pounds	1 kilogram = 1000 grams
1 ounce is about the weight of 30 cm cubes 1 pound is the weight of 1 bag of coffee	1 gram is about the weight of 1 cm cube 1 kilogram is about the weight of 2 $\frac{1}{4}$ bags of coffee

Abbreviations of weight measurements according to size from smallest to largest:

g (gram) oz (ounce) lb (pound) kg (kilogram)

Capacity Measures

Capacity is the amount a container can hold.

Customary Units	Metric Units
2 cups = 1 pint	1 milliliter is about one drop from an eye dropper
2 pints = 1 quart	1 liter is about the size of 1 quart
4 cups = 1 quart	
1 gallon = 2 half gallons 1 gallon = 4 quarts 1 gallon = 8 pints 1 gallon = 16 cups	1 gallon is about the size of 1 large jug of milk

Abbreviations of capacity measurements according to size from smallest to largest:

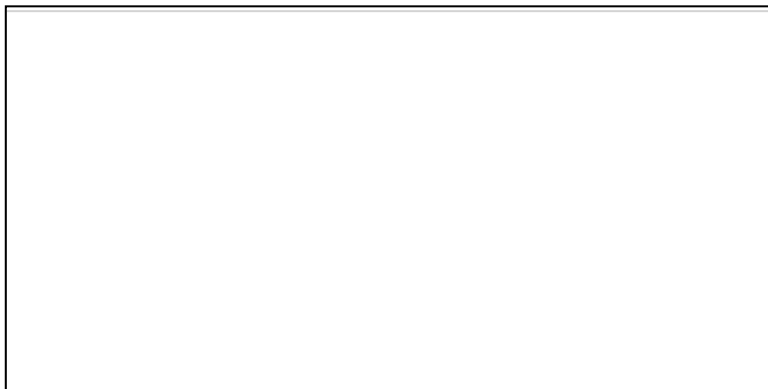
ml (milliliter) c (cup) pt (pint) qt (quart) l (liter) gal (gallon)

Unit 5, Activity 2, Selecting Appropriate Units of Length

Example:

4

2



Draw three rectangles for each given dimension. Draw a rectangle in millimeters, centimeters, and inches. Label each figure with the correct units.

1) 5 by 3

2) 1 by 6

Unit 5, Activity 3, Area vs. Perimeter Anticipation Guide

Anticipation Guide Statements

1. The area is the amount of surface inside a given shape.

True_____ False_____

2. The perimeter is the distance around a shape.

True_____ False_____

3. The area of a given shape is always the same as the perimeter of the same given shape.

True_____ False_____

4. An area with a given measurement always has the same perimeter.

True_____ False_____

5. A figure with a given perimeter always has the same area measurement.

True_____ False_____

6. The area and perimeter of the same shape are always measured with the same units.

True_____ False_____

Unit 5, Activity 3, Area vs. Perimeter Anticipation Guide with Answers

Anticipation Guide Statements

1. The area is the amount of surface inside a given shape.

True X False _____

2. The perimeter is the distance around a shape.

True X False _____

3. The area of a given shape is always the same as the perimeter of the same given shape.

True _____ False X _____

4. An area with a given measurement always has the same perimeter.

True _____ False X _____

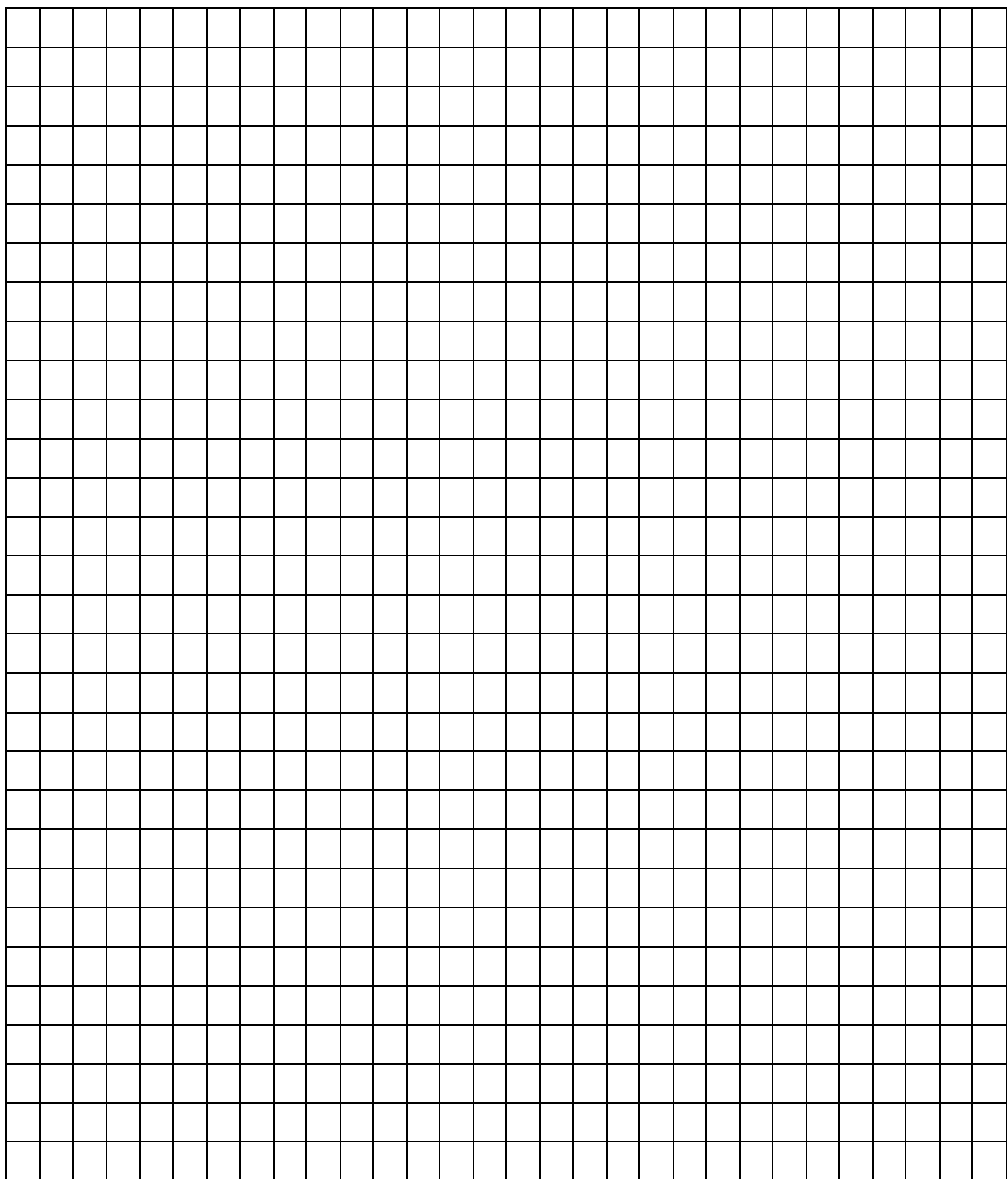
5. A figure with a given perimeter always has the same area measurement.

True _____ False X _____

6. The area and perimeter of the same shape are always measured with the same units.

True _____ False X _____

Unit 5, Activity 3 and Assessment 2, Grid Paper



Unit 5, Activity 4, Capacity Units

Name: _____

Date: _____

Cut the cards.

fluid ounce	quart	liter
cup	gallon	milliliter
pint	kiloliter	fl oz
c	L	qt
gal	mL	pt
kL		

Unit 5, Activity 5, Weight/Mass Units

Name: _____

Date: _____

Cut the cards.

ounce	gram	ton	pound
kilogram	oz	lb	kg
g	T		

Unit 5, Activity 6, Measurement Situation Cards

Name: _____

Date: _____

Cut the cards.

Theo wants to measure the amount of water that his bathtub can hold. What tool should he use to measure? What will his measurement unit be? What is the abbreviation for that unit? Are there any other units that he could use to find answer? Would those be as effective? Why or why not?	Jack wants to measure the perimeter of his rectangular living room floor. What tool should he use to measure? What will his measurement unit be? What is the abbreviation for that unit? Are there any other units that he could use to find answer? Would those be as effective? Why or why not?
Leslie has to measure the flour for a cake she is baking. What tool should she use to measure? What will her measurement unit be? What is the abbreviation for that unit? Are there any other units that she could use to find answer? Would those be as effective? Why or why not?	Jessica wants to measure the width of her car. What tool should she use to measure? What will her measurement unit be? What is the abbreviation for that unit? Are there any other units that she could use to find answer? Would those be as effective? Why or why not?
Tyrin measures his waist to see what size of pants to buy. What tool should he use to measure? What will his measurement unit be? What is the abbreviation for that unit? Are there any other units that he could use to find answer? Would those be as effective? Why or why not?	Margaret has to buy the correct postage for a package of books to send to her friend. What tool should she use to measure? What will her measurement unit be? What is the abbreviation for that unit? Are there any other units that she could use to find answer? Would those be as effective? Why or why not?

Unit 5, Activity 9, Converting Units Process Guide

Theo wants to measure the amount of water that his bathtub can hold. What tool should he use to measure? What will his measurement unit be? What is the abbreviation for that unit? Are there any other units that he could use to find answer? Would those be as effective? Why or why not? <i>gallon milk jug or measuring pitcher; gallon. gal; liter; not as effective because about four liters equals one gallon</i>	Jack wants to measure the perimeter of his rectangular living room floor. What tool should he use to measure? What will his measurement unit be? What is the abbreviation for that unit? Are there any other units that he could use to find answer? Would those be as effective? Why or why not? <i>tape measure or yard stick; feet; ft; yards or meters but those will not be as precise; centimeters or inches could also work but the numbers will be high, and it will require more computation</i>
Leslie has to measure the milk for a cake she is baking. What tool should she use to measure? What will her measurement unit be? What is the abbreviation for that unit? Are there any other units that she could use to find answer? Would those be as effective? Why or why not? <i>measuring cup or graduated cylinder; cups; c; pints could work if there were a lot of milk required or tablespoons could work if Leslie did not need a lot of milk; fluid ounces or milliliters would work just as well because it is a specific measurement and can also be determined with a clear measuring cup or graduated cylinder</i>	Jessica wants to see if her suitcase is too heavy for an airplane. What tool should she use to measure? What will her measurement unit be? What is the abbreviation for that unit? Are there any other units that she could use to find answer? Would those be as effective? Why or why not? <i>scale; pounds; lb; She could use kilograms and that would be as effective. She could also use ounces, but a suitcase would measure a lot of ounces, and it would be hard to calculate. Grams would be way too small.</i>
Tyrin measures his waist to see what size of pants to buy. What tool should he use to measure? What will his measurement unit be? What is the abbreviation for that unit? Are there any other units that he could use to find answer? Would those be as effective? Why or why not? <i>tape measure; inches; in.; centimeters if he wants to measure in metric units. Centimeters will be just as effective. Feet would be too big and difficult to use for new pants.</i>	Margaret has to buy the correct postage for a package of books to send to her friend. What tool should she use to measure? What will her measurement unit be? What is the abbreviation for that unit? Are there any other units that she could use to find answer? Would those be as effective? Why or why not? <i>scale; ounces; oz; grams might work but the package could be quite heavy, and there would be too many grams for it to be a useful number. Pounds might work but the package might be in between pounds and the correct postage might be difficult to determine</i>

Unit 5, Activity 9, Converting Units Process Guide

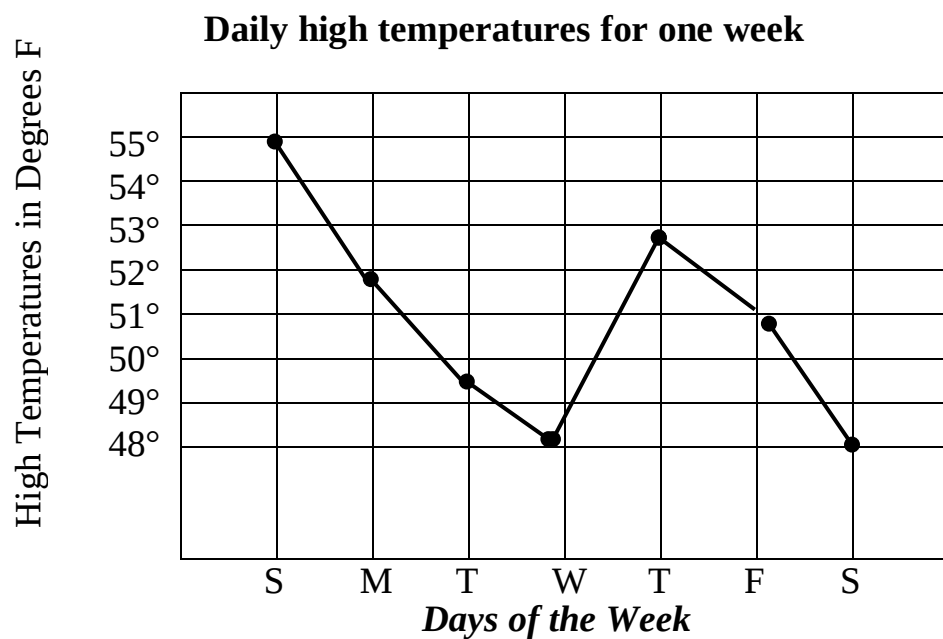
1. Read the measurement problem carefully and look at the units to determine if the problem involves length, weight, capacity, or volume.
 - a. What are the units? _____
 - b. What are the abbreviations for the units? _____
2. Does the problem involve length, weight, capacity, or volume? _____
3. Looking at the abbreviations for the units, does this problem have customary or metric units?

4. From what unit of measurement are you converting? _____
5. To what unit of measurement are you converting? _____
6. How are those two units of measurement related? _____
7. Are you converting from larger units to smaller units or smaller units to larger units?

8. Should you multiply or divide? _____
9. By what amount are you multiplying or dividing? _____
- 10a. If you are multiplying, is there anything you need to add to your answer? _____
If so, what number and unit do you need to add? _____
Show your work here:
- 10b. If you are dividing, do you have anything left over? _____
If so, what is left over? _____
Show your work here:
11. What is your answer? _____

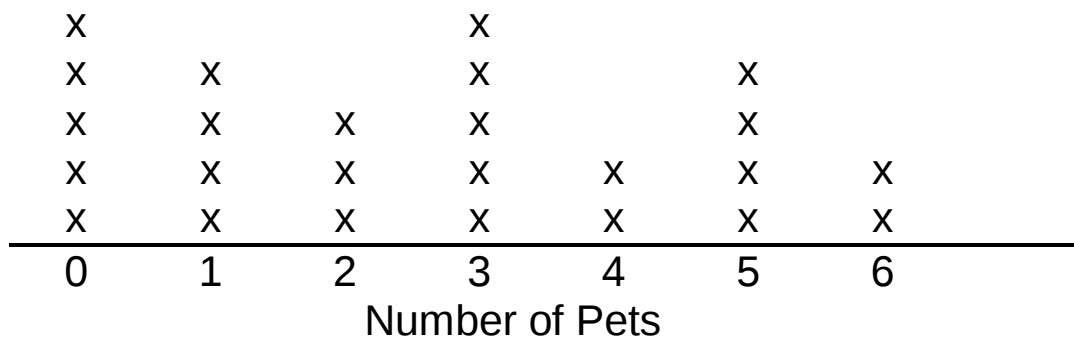
Unit 5, Activity 11, Graphing Data

Line graph



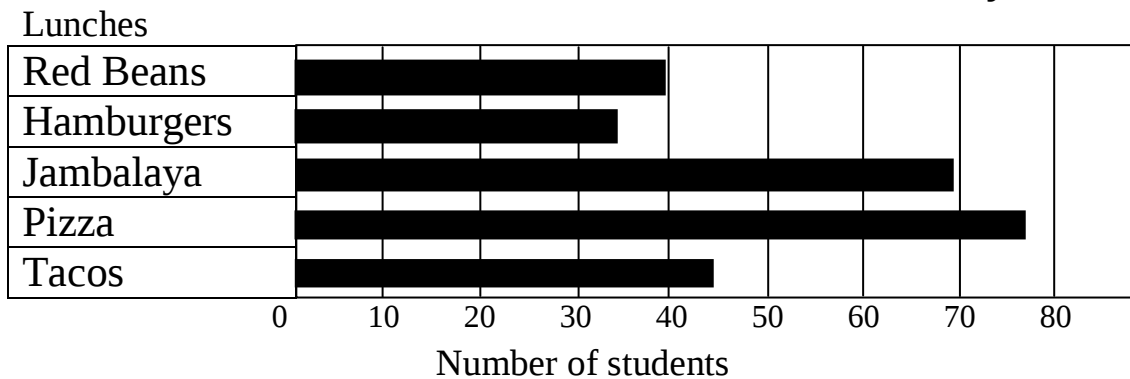
Line Plot

Ms. Gonzalez's Fourth Grade Class



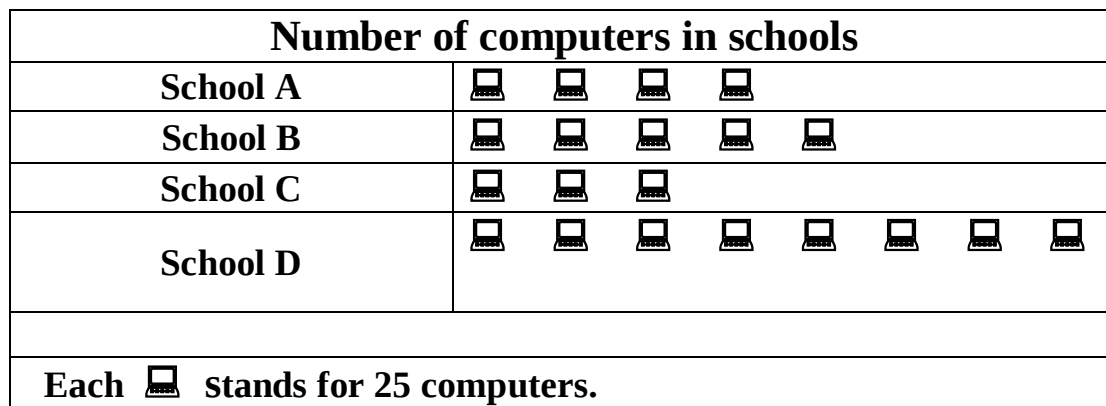
Bar Graph

Favorite Lunches at Newton Elementary



Pictograph

The graph below shows the number of computers at the schools in a district.



Unit 5, Activity 11, Graphing Measurement Cards

Name: _____

Date: _____

Cut the cards.

Miles Ran Each Day

Monday	7 mi
Tuesday	4 mi
Wednesday	8 mi
Thursday	5 mi
Friday	2 mi

Amount of Popcorn Popped

Jack	45 lb
Suzanne	23 lb
Chuck	39 lb
Kendall	51 lb
Jaquan	32 lb
Troy	48 lb

Amount of Lemonade Sold

Jackson Street	15 qt
Jefferson Street	24 qt
Claibourne Ave	30 qt
Nashville Ave	18 qt
Wilkinson Street	22 qt

High Temperature

Monday	75°
Tuesday	71°
Wednesday	83°
Thursday	69°
Friday	73°
Saturday	77°

Student Heights

Kearney	48 in.
Kim	49 in.
Rashad	53 in.
Penelope	49 in.
Barry	51 in.
Koya	46 in.
Ronson	51 in.
Chris	49 in.

Length of Pencil

#1	4 $\frac{1}{4}$ in.
#2	4 $\frac{1}{2}$ in.
#3	5 in.
#4	4 $\frac{1}{4}$ in.
#5	4 $\frac{3}{4}$ in.
#6	5 in.
#7	4 $\frac{1}{4}$ in.