NAME: _____

Student Worksheet

Activity One

1a) Conversions

1.5 tons =	_____ lbs	6 lbs =	_____ oz	12,000 lbs =	_____ tons
5 cm =	_____ mm	2.5 km =	_____ m	182 mm =	_____ cm
80 L =	_____ kL	10 quarts =	_____ gallons	6 pints =	_____ cups
5 ft =	_____ in	2.5 yd =	_____ ft	7.5 yard =	_____ in

b) Angle Measurement

Draw the three angles described below using a protractor or other angle measurement device.

Angle 1: 65°

Angle 2: 100°

Angle 3: 150°

c) Short Answers

i) What is the perimeter of a rectangle with a length of 5 cm (2 in) and a width of 8 cm (3 in)?

Answer: _____

ii) Which temperature is closest to the freezing point?

25°F (-4°C) *or* 35°F (2°C)

iii) The radius of a circle is half as long as this part of a circle. Name the part.

Answer: _____

iv) What is the area of a triangle with a base of 4 inches (10 cm) and a height of 5 inches (13 cm)?

Answer: _____

NAME: _____

Student Worksheet

Activity Two

2a) Tad noticed that the average elephant weighs at least 2000 pounds (907 kilograms) when it is an adult. Based on this data, how much did he determine a group of twenty adult elephants would weigh?

Answer: _____

b) Amy recorded a temperature equal to 20 degrees below freezing on the Celsius (Fahrenheit) scale. What temperature did she record?

Answer: _____

c) A triangle has a height of 4 inches (10 cm). Each side equals 7 inches (18 cm). What is the area of this triangle?

Answer: _____

d) Ruiz spent fifty-five dollars on lacrosse equipment at a local sporting goods store. After tax, his total was $57.75. What percentage of tax did he pay on his purchase?

Answer: _____

e) Li's father fills up his car with an average of 12 gallons (45 liters) of gas each week. During one complete year, how many total gallons of gas does his car use?

Answer: _____

f) Grace ran a 400 meter dash at school. Her time for the dash during three heats was 50.1 seconds, 49.8 seconds, and 52.4 seconds. What was her average time for the three heats?

Answer: _____

NAME: _____

Student Worksheet

Activity Three

3a) Jaime needed at least 30 quarts (28 liters) of ice cream to serve as a dessert at a party. She had 5 gallons (19 liters) of ice cream already. How many more gallons (liters) will she have to purchase to make sure she can serve 30 quarts at her party?

Answer: _____

b) A plane flies a round trip of 3,510 miles (5,649 kilometers). It makes a stop two-thirds of the way through each trip. How many miles (kilometers) had it flown when it stopped for the first time?

Answer: _____

c) A rectangle has a length of 5 inches (13 cm) and a width that is three times that amount. What is the perimeter of the rectangle?

Answer: _____

d) A truck weighs 18 tons. If it is traveling on a route that excludes trucks over 30,000 pounds, how many tons would this truck need to shed in order to travel on the route?

Answer: _____

e) Karl measures an angle. It is equal to one and one-third of a right angle. What is the measurement of the angle?

Answer: _____

f) The students in Ms. Chen's science class are conducting an experiment. In it, they are slowly boiling water with a starting temperature of 68°F (20°C). How much hotter will the water have to get before it boils?

Answer: _____

g) The area of a square is 64 square cm (9 square in). How long is each side?

Answer: _____

NAME: _____

Student Worksheet

Activity Four

4a) Greg drew a small circle using a compass. His circle had a diameter of 8 cm (3 in). What was the area of Greg's circle?

Answer: _____

b) Jesse changes the water in his 10 gallon (38 liter) fish tank once every two weeks. During the course of one year, how many gallons (liters) of water has Jesse used to fill his tank?

Answer: _____

c) Prasanth measured a triangle. The first angle in the triangle measured 45°. The second angle measured 100°. What was the measure of the third angle?

Answer: _____

d) Carlos runs 5 kilometers (3 miles) a day three times a week. During a four week period, how many total meters (feet) will he run if he continues his current running schedule?

Answer: _____

e) Emily is filling a large square box with white paper to use as snow during a school play. If all sides of the box are 12 inches (30 cm), what is the volume of the box?

Answer: _____

f) The students in Mr. DeLanoro's class were building scale models of their school. The scale ratio used on the models was 1 cm = 18 inches. If the height of the model of their school was 35.25 cm, how tall is the school in feet?

Answer: _____

g) Alex was conducting a science experiment on how much a pumpkin grew over the course of the month. At the beginning of the month, the pumpkin weighed 15 ounces (425 grams). By the end of the month, it had weighed 12.5 pounds (5.7 kilograms). How much had the pumpkin grown during the course of the month?

Answer: _____

NAME: _____

Student Worksheet

Activity Five

5a) Jeffrey is measuring the sides of a cube. Each side is 4 cm (2 in). What is the surface area of the cube?

Answer: _____

b) Maria's swimming pool holds 22,000 gallons (83,255 liters) of water. Each year, her family has to replace approximately 5 percent of the water. How much water does Maria's family replace each year in terms of quarts (milliliters)?

Answer: _____

c) The diameter of a circle is 10 cm (4 in). What is the area of the circle?

Answer: _____

d) Chen runs in a standard 26.2 mile (42.2 kilometer) marathon. If he completes the race in 4 hours, 20 minutes, what is his rate of running per mile (kilometer)?

Answer: _____

e) Dana drew a map of his yard. In the middle of the yard is a square garden. The portion of the garden is 1 to 500. If Dana's garden on the map is 1.5 square feet (0.14 square meter), how large is the garden?

Answer: _____

f) Mrs. Jefferson drew an angle on the whiteboard. The angle was 1/3 the length of a straight angle. How large is the angle?

Answer: _____

g) Adele is measuring a square in class. The area of a square is 36 square centimeters (6 square inches). How many millimeters (inches) long is each side?

Answer: _____

h) An equilateral triangle had a side measure of 7 inches (18 cm). What is the perimeter of the triangle?

Answer: _____

NAME: _____

Student Worksheet

Activity Six

6) It's All In Proportion

For the following project, select a small object in the classroom. Your job is to measure its length, or width, or height (or find its area). Then, you are to do the following, with the supervision of an adult:

a) Write the name of the object. List the measurement you found.

Answer: _____

b) Measure an object that is twice the size of the object. Name the object. List the measurement. Then, list the scale for the object compared to the first object.

Answer: _____

c) Measure an object that is three times the size of the object. Name the object. List the measurement. Then, list the scale for the object compared to the first object.

Answer: _____

d) Measure an object that is four times the size of the object. Name the object. List the measurement. Then, list the scale for the object compared to the first object.

Answer: _____

e) Measure an object that is five times the size of the object. Name the object. List the measurement. Then, list the scale for the object compared to the first object.

Answer: _____

When you are done, share your results in class. Find similarities and differences between the items that were measured, using the same scales.

1.

a) 3000 lbs
96 oz
6 tons
50 mm
2500 m
18.2cm
.08 kL
2.5 gallons
12 cups
60 in
7.5ft
270 in

b) Pictures should look like angles described.

c) i) 26 cm (10 in)

ii) 35°F (2°C)

iii) diameter

iv) 10 sq. in. (65 sq. cm)

1A

2.

a) 40,000 pounds (18,140 kg)

b) - 20°C (12°F)

c) 14 sq. inches (90 sq. cm)

d) 5 percent

e) 624 gallons (2340 liters)

f) 50.767 seconds

2A

3.

a) 3 gallons (she will have 2 quarts extra) (9 liters)

b) 1170 miles (1883 km)

c) 40 inches (104 cm)

d) 3 tons (6,000 pounds)

e) 120 °

f) 144°F (80°C)

g) 8 cm (3 in)

3A

4.

a) 50.24 sq. cm (7.07 sq. in)

b) 260 gallons (988 liters)

c) 35°

d) 60,000 m (190,080 feet)

e) 1728 in^3 (27000 cm^3)

f) 52.875 feet

g) 185 oz(5700 g) or 11.56 lbs (5.28 kg)

4A

5.

a) 96 sq. cm (24 sq. in)

b) 4400 quarts (4,162,750 ml)

c) 78.5 sq. cm (12.56 sq. in)

d) 6.05 mph (9.75 kph) or .1 mpm

e) 750 sq. ft (70 sq. m)

f) 60 °

g) 60 mm (2.45 in)

h) 21 in (54 cm)

5A

6.

EZ

Answers may vary.

6A

(these answers are for the 6 free bonus pages, see page 3 for download instructions)