Measurement

We begin another large unit which will focus on measurement. We will begin with simple perimeter/area which includes knowing the following formulas: P=4S, P= L+W+L+W, P= 2L+2W, A=SxS, A=LxW. From there, we transition to working with complex/compound perimeter/area. Then, we look at measurement in regards to length, weight/mass, capacity, temperature, and elapsed time. We will work with both customary and metric units for each and we will also find equivalent measurements (ex. 32 oz. = 4 cups).

One strategy we will use when converting in the same system is using multiplication and division. When finding the equivalent of a smaller unit with a larger unit, we will divide: 32 oz. = _____ cups. 8 ounces equals 1 cup so 32 ÷ 8 = 4 cups. When finding the equivalent of a large unit to small unit, we will multiply: 4 cups =___ oz. 8 ounces equal one cup so 4 x 8 = 32 ounces. We will use body motions to help us remember which operation will be appropriate for a given problem. Creating tables similar to function tables will be another strategy to use.

We will also practice utilizing our STAAR mathematics chart when it comes to any measurement related question.

STAAR GRADE 4 MATHEMATICS REFERENCE MATERIALS

LENGTH

Customary	Metric
1 mile (mi) = 1,760 yards (yd)	1 kilometer (km) = 1,000 meters (m)
1 yard (yd) = 3 feet (ft)	1 meter (m) = 100 centimeters (cm)
1 foot (ft) = 12 inches (in.)	1 centimeter (cm) = 10 millimeters (mm)

VOLUME AND CAPACITY

Customary	Metric
1 gallon (gal) = 4 quarts (qt)	1 liter (L) = 1,000 milliliters (mL)
1 quart (qt) = 2 pints (pt)	
1 pint (pt) = 2 cups (c)	
1 cup (c) = 8 fluid ounces (fl oz)	

WEIGHT AND MASS

Customary	Metric
1 ton (T) = 2,000 pounds (lb)	1 kilogram (kg) = 1,000 grams (g)
1 pound (lb) = 16 ounces (oz)	1 gram (g) = 1,000 milligrams (mg)

TIME

1 year = 12 months

1 year = 52 weeks

1 week = 7 days

1 day = 24 hours

1 hour = 60 minutes

1 minute = 60 seconds

Centimeters

STAAR GRADE 4 MATHEMATICS REFERENCE MATERIALS

PERIMETER

Square			$P = 4s$
Rectangle	$P = l + w + l + w$	or	$P = 2l + 2w$

AREA

Square	$A = s \times s$
Rectangle	$A = l \times w$

Inches

0
1
2
3
4
5
6
7
8

Image borrowed from the TEA website.