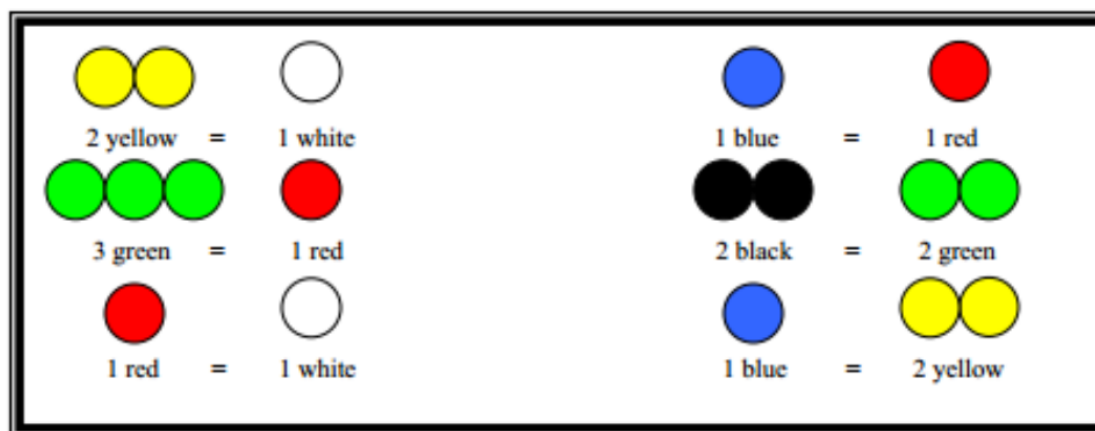








LESSON 0-1 AND 0-2DIMENSIONAL ANALYSIS---CONVERSIONS

THERE IS A BETTER WAY THAN LOGICALLY THINKING IT THROUGH.....IN CHEMISTRY NEXT YEAR, THEY WILL BE TOO BIG TO LOGICALLY THINK IT THROUGH.....







Copy this conversion chart in your  
iNotebook

Use the markers on your table for  
color.....



	=	
2 yellow	=	1 white
	=	
3 green	=	1 red
	=	
1 red	=	1 white

	=	
1 blue	=	1 red
	=	
2 black	=	2 green
	=	
1 blue	=	2 yellow

## One Step Conversions:

How many **GREEN** circles are equal to twelve **BLACK** circles?

ending point--what you want to trade it in for...

starting point--what you already have

Step 1: Find your starting point and your ending point.

$$\text{starting point: } \frac{12 \text{ Black Circles}}{1} = \frac{2 \text{ green circles}}{2 \text{ black circles}} = \frac{\text{Green circles}}{1} \text{ ending point:}$$

Step 2: Find your conversion that will "cancel" the names or labels















Practice with your shoulder partner.

5 Blue Circles are equal to how many Yellow Circles?

10 Yellow Circles are equal to how many White circles?

How many Red Circles are equal to two Green Circles?

	=			=	
2 yellow		1 white	1 blue		1 red
	=			=	
3 green		1 red	2 black		2 green
	=			=	
1 red		1 white	1 blue		2 yellow

**Multi-step Conversions:** 4 Black circles are equal to how many Blue circles?

Step 1:

Step 2:

Step 3:

Step 4:

Practice with your across table partner:

--5 **Red** circles equal how many **yellow** circles?

--How many **green** circles are equal to 5 **blue** circles?

--How many **black** circles are equal to 15 **yellow** circles?

# Foldable for the conversion chart into your iNotebook

<b>Measures</b>	
<b>Metric</b>	<b>Customary</b>
<b>Length</b>	
1 kilometer (km) = 1000 meters (m) 1 meter = 100 centimeters (cm) 1 centimeter = 10 millimeters (mm)	1 mile (mi) = 1760 yards (yd) 1 mile = 5280 feet (ft) 1 yard = 3 feet 1 yard = 36 inches (in.) 1 foot = 12 inches
<b>Volume and Capacity</b>	
1 liter (L) = 1000 milliliters (mL) 1 kiloliter (kL) = 1000 liters	1 gallon (gal) = 4 quarts (qt) 1 gallon = 128 fluid ounces (fl oz) 1 quart = 2 pints (pt) 1 pint = 2 cups (c) 1 cup = 8 fluid ounces
<b>Weight and Mass</b>	
1 kilogram (kg) = 1000 grams (g) 1 gram = 1000 milligrams (mg) 1 metric ton (t) = 1000 kilograms	1 ton (T) = 2000 pounds (lb) 1 pound = 16 ounces (oz)

## Foldable for Cross-System Conversions

Units of Length	
Customary → Metric	Metric → Customary
1 in. $\approx$ 2.5 cm	1 cm $\approx$ 0.4 in.
1 yd $\approx$ 0.9 m	1 m $\approx$ 1.1 yd
1 mi $\approx$ 1.6 km	1 km $\approx$ 0.6 mi

Units of Capacity	
Customary → Metric	Metric → Customary
1 qt $\approx$ 0.9 L	1 L $\approx$ 1.1 qt
1 pt $\approx$ 0.5 L	1 L $\approx$ 2.1 pt

Units of Weight/Mass	
Customary → Metric	Metric → Customary
1 oz $\approx$ 28.3 g	1 g $\approx$ 0.04 oz
1 lb $\approx$ 0.5 kg	1 kg $\approx$ 2.2 lb

## Individual Practice--Work and Check 5 Problems

If a person has a mass of 60 kilograms, what is his mass in tons?

A can of soda has a volume of 355 milliliters. What is the volume in quarts?

How many miles are in 25 km?

Convert 9.85 L to gallons

A small pizza has a diameter of 9 inches. What is the length in millimeters?



Homework:

Choose 1:

Pg. P5 Left Column

Pg. P5 Middle Column

Pg. P5 Right Column

Choose 1:

Pg. P7 Left Column

Pg. P7 Middle Column

Pg. P7 Right Column

Every MUST Do Pg. P7 Q. 19, 20, 21

Make Sure You:

- Write down which options you chose.....
- Show ALL work
- Complete your homework
- There may or may not be a homework check over this tomorrow.....