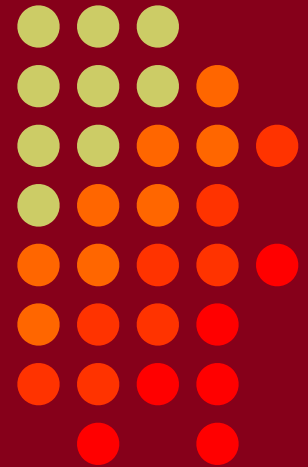
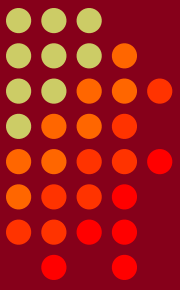


Introducing... The Metric System!

Chapter 1

EQ: Why do most countries use the metric system?

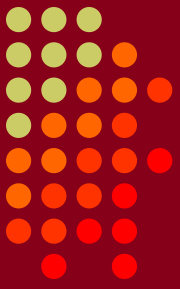




What is the Metric System?

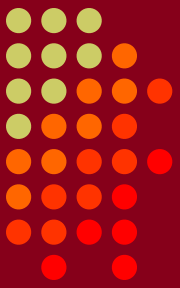
- “The **metric system** is an international decimalized system of measurement, first adopted by France in 1791, that is the common system of measuring units used by most of the world.”
- Based around the idea of increments of 10

Who invented the Metric System?



- French Commander Napoleon locked away all scientists and mathematicians and wouldn't let them out until they developed a simple form of measurement that could be used everywhere in Europe.

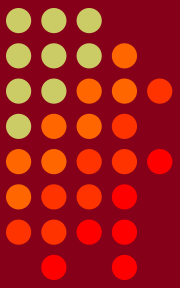
Do We Use the Metric System?



- We do in science!
- Not in the USA in everyday life

BrainPop!





Metric Measurements!

- Length ~ Meters
- Volume ~ Liters
- Mass ~ Grams
- Time ~ Seconds
- Temperature ~ Degrees Celsius

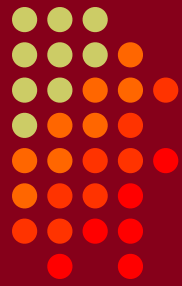
Definitions!



- Length ~ The measurement of an object from end to end.
- In order to measure length, we use a tool called a Meter Stick



Definitions Continued!



- Volume ~ The amount of space an object takes up.
- In order to measure volume we use a tool called a Graduated Cylinder.



Definitions Galore!



- Mass ~ The amount of matter, or “stuff” in an object.
- In order to measure mass, we use a tool called a Triple Beam Balance.



More Definitions!



- Time ~ A period or interval.
- In order to measure time, we use a tool called a stopwatch.

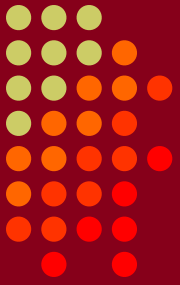


The End of Definitions!



- Temperature ~ A measure of how warm or cold an object is.
- In order to measure temperature, we use a tool called a thermometer.





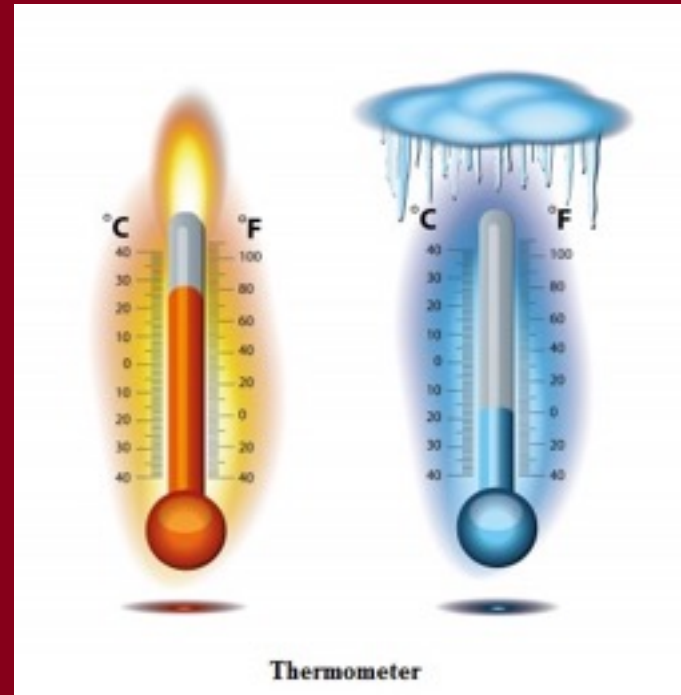
Temperature Conversions

Converting Fahrenheit to Celsius

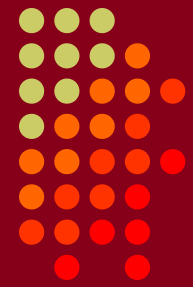
$$F = \frac{9}{5} C + 32$$

Converting Celsius to Fahrenheit

$$C = \frac{5}{9} (F - 32)$$



Conversions



- According to Dictionary.com...
 - Conversion (n) : 7. the act of obtaining **equivalent** value, as of money or units of measurement, in an exchange or calculation.

8.7 - Temperature and Conversions between the U. S. and the Metric Systems

Conversions

Convert 60°C to Fahrenheit.

$$F = \frac{9}{5}C + 32$$

$$F = \frac{9}{5}(60) + 32$$

$$F = 9 \cdot 12 + 32$$

$$F = 108 + 32$$

$$F = 140^{\boxed{?}}F$$

8.7 - Temperature and Conversions between the U. S. and the Metric Systems

Conversions

Convert 68°F to Celsius.

$$C = \frac{5}{9}(F - 32)$$

$$C = \frac{5}{9}(68 - 32)$$

$$C = \frac{5}{9}(36)$$

$$C = 5 \cdot 4$$

$$C = 20^{\boxed{?}}C$$

8.7 - Temperature and Conversions between the U. S. and the Metric Systems

Conversions

A patient's temperature reached 102.8°F . What is the temperature in Celsius? Round to the tenths.

8.7 - Temperature and Conversions between the U. S. and the Metric Systems

Conversions

A patient's temperature reached 102.8°F. What is the temperature in Celsius? Round to the tenths.

$$C = \frac{5}{9}(F - 32)$$

$$C = \frac{5}{9}(102.8 - 32)$$

$$C = \frac{5}{9}(70.8)$$

$$C = \frac{354}{9}$$

$$C = 39.33$$

$$C = 39.3 \text{ } \boxed{?} \text{ } ^\circ\text{C}$$

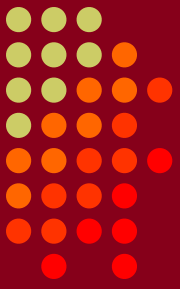


King Henry Conversions

- Kilometer Km
- Hectometer Hm
- Decameter Dkm
- meter m
- decimeter dm
- centimeter cm
- millimeter mm

abbreviations!

King Henry Conversions!



King

Henry

Doesn't

usually

drink

chocolate

milk

K H D u d c m

A yellow star graphic is overlaid on the text 'K H D u d c m'. The star is positioned over the 'D' and 'u' characters, with its points extending towards the 'K', 'H', 'd', and 'c' characters. The star is a simple outline with a yellow fill.

Let's Practice!



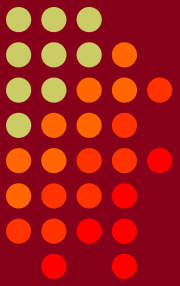
- Convert the following:

- $1.0 \text{ Km} = \overset{1000}{\text{_____}} \text{ m}$

- $1.0 \text{ m} = \overset{100}{\text{_____}} \text{ cm}$

- $1.0 \text{ cm} = \overset{10}{\text{_____}} \text{ mm}$





Tougher Ones!

- Convert the following:
 - 2,500 Km = _____ m
 - 6.3 cm = _____ mm
 - 53.6 dm = _____ cm

