Name: _____

Period:_____

Chapter 16 Review

Chapter 16
review
Turn in with Test

Safety— Know location and use of safety equipment: goggles; gloves; apron; fire extinguisher; fire blanket;
Know procedures for: accidents; glass breakage.

MSDS— Know how to read basics of an MSDS sheet: chemical name; At-a-Glance; First Aid Measures; Fire Fighting Measures.

Which of these two chemicals is more hazardous to your health?

Which one is more flammable?

At-a-Glance
Acetone

Health — 1
Flammability — 3
Reactivity — 2
Exposure — 1
Storage—3

At-a-Glance
Chloroform

Health — 2
Flammability — 0
Reactivity — 1
Exposure — 2
Storage—2

What would you do if someone breathed chloroform?

Drank it?

First Aid Measures—Chloroform

Call a physician, seek medical attention for further treatment, observation and support after first aid.
Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.
Eye: Immediately flush with fresh water for 15 minutes.
External: Wash continuously with fresh water for 15 minutes.
Internal: Induce vomiting. After vomiting, give mixture of 2 Tbs. of activated charcoal mixed with one cup of water. Call a physician or poison control at once.

Classification of Matter—Know definition of Matter; Be able to give examples of and tell difference between:
Mixtures and substances (non-mixtures); Homogenous and heterogeneous mixtures; Elements vs. Compounds.

Mixture (M) versus Substance (S) (non-mixture):

Salt Water _____ Chicken Soup _____

Water _____ Salt _____

Silver _____ Chex Mix _____

Homogenous (Hm) versus Heterogenous (Ht)

Salt Water _____ Chicken Soup _____

Tomato Soup_____ Plain Jello _____

Jello with Fruit _____ Chex Mix _____

1. Substance or non-mixture
2. Mixture
3. Heterogeneous Mixture
4. Matter
5. Element
6. Homogeneous Mixture
7. Compound

a. Made up of two types of matter that can be physically separated.

b. Two samples might not be the same.

c. Two samples will have the same makeup.

d. Has only one kind of atom in the sample.

e. Contains two kinds of atoms that *cannot* be physically separated.

f. Cannot be separated by physical means.

g. A classification of anything that has mass and takes up space.

Metrics—Be able to do metric conversions. Know the different basic units: meters; liters; grams.
Know the prefixes: Kilo-, Hecto-, Deka-, Basic Unit, Deci-, Centi-, Milli-. Know how big the common metric units are.

Convert the following

3.2 kilometers = _____ meters

0.23 centimeters = _____ meters

0.12 liter = _____ milliliters

2500 milliliters = _____ liters

4500 grams = _____ kilograms

9 kilograms = _____ grams

22 cm^3 = _____ mL = _____ g

What is the correct order shortest to longest?

Kilometer millimeter meter centimeter

_____

A centimeter is the width of:

The size of a liter is:

A meter is how many feet?

A gram is about:

A millimeter is the width of:

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States of Matter—Know the four states of matter: Solid; Liquid; Gas; Plasma.
Of the three most common states (Solid; Liquid; Gas) know the properties of each: shape; volume; compressibility; speed of molecules; distance between molecules.
Know the names of the temperatures at which a substance changes state: freezing point, etc.

What are the differences between solids and liquids?	What are the differences between liquids and gases?	The temperature at which a solid turns to liquid is: The temperature at which a liquid turns to a gas: The temperature at which a gas turns to liquid: The temperature at which a liquid turns to a solid: When a solid turns straight to a gas:
What are the similarities between solids and liquids?	What are the similarities between liquids and gases?	

Know and be able to list the 6 major steps of the Scientific Method.
Be able to apply the Scientific Method to tell the difference between states of matter or different kinds of matter.

Use the Scientific Method to determine if an object is a mixture or a substance. Make sure to name each step as you go.	4.
1. 2. 3.	5. 6.

With precision be able to measure distance with the meter stick; volume with the graduated cylinder; mass with the balance scale.
Be able to calculate area and volume with formulas and with the displacement method.
Be able to use the indirect method of measuring small or large objects.

On side of a cube measures 3 cm. Find its volume.	You put an object into 25 mL of water. Afterward the graduated cylinder reads 32 mL of water. What is the volume of the object?
A book measures 10 cm by 12 cm. Find its surface area.	You are trying to find the mass of a kernel of corn. If 20 kernels read 12 grams, how much mass does one kernel have?