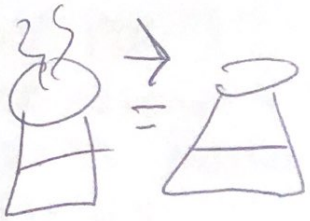
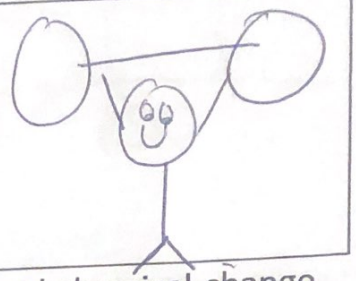
SI session: Chapter 3

1. Define and give an example for the following terms:

Physical Properties	• Properties of a substance that can identify the substance w/o causing a change in the composition.	Color malleability taste density ductility.
Chemical Properties	• Properties of a substance that relate to changes in the composition of the substance or it's reactions w/ other substances.	- Flamability. - Oxidation. (rust).
Extensive properties Physical Change.	Properties that relate to how much of a substance is present.	 Mass/ weight.
Intensive properties Chem. change.	Properties that relate to a substance's Identity.	Flamability rust
Law of conservation and mass	States that mass is neither created nor destroyed.	
Law of Conservation of energy	• States that energy is not created nor destroyed.	Constant.

Energy	• The capacity to do work	

2. Describe the difference between a physical and chemical change.

Physical Change - Characteristic properties not altered - Change in extensive Property.

Chemical Change - Alters Characteristic Properties, New Matter type formed - intensive Property. Change.

3. Describe the difference between exothermic and endothermic.

exothermic - releases heat - get warmer.

endo - absorbs heat - get colder

Cold Packs.

4. Name and define the types of energy.

- Kinetic - energy associated w/ motion
- Potential - ↓ w/ position
- Thermal - random motions of atoms + Molecules in Matter
- Electrical - Flow of electrons.

5. Describe the Fahrenheit scale.

Freezing pt. -32°F

Boiling pt. -212°F

~~1.24 x 1/100 x~~

Review of math:

1. Calculate the ~~volume~~ mass of an object with a ~~mass~~ volume of 0.236 cm^3 and a density of 5.26g/cm^3. provide your answer in Kilograms.

$M = VD$

$M = (0.236\ cm^3)(5.26\ g/cm^3)$

$M = 1.24g$

$\frac{1.24g}{1} \left| \frac{1kg}{1000g} \right. = 0.00124$

1.24×10^{-3}

2. A ball rolls down a hill at a ~~speed of 5 miles~~ per hour. If the ball travels for 30 meters, how many centimeters did the ball travel?

$\frac{30\ meter}{1\ meters} \left| \frac{100\ cm}{} \right. = 3000.cm$

3.0×10^3