Matter - is anything that has mass and takes up space

Melting - change from solid to liquid (need heat)

Vaporization - change from liquid to gas (need heat)

condensation - change from gas to liquid (loss of heat)

Freezing - change from liquid to solid (Loss of heat)

Sublimation - change of solid right to gas

Evaporation - is slow vaporization.

Boiling - is FAST vaporization

Melting point - the temperature when a substance melts

Boiling point - the temperature when a substance boils

Fluid - is any form of matter that flows (gas or liquid)

Flow Rate is the speed at which a fluid flows from one point to another

Viscosity - A measure of a liquid's resistance to flow.

State	Shape	Volume	Particle arrangement	Particle movement
1. Solid	Definite	Definite	Close	Vibrate
2. Liquid	Indefinite	Definite	Close	Free flowing
3. Gas	Indefinite	indefinite	Far Apart	Random

High Viscosity = low flow rate

Low Viscosity = high flow rate

Particle Theory of Matter

- All matter is made up of very tiny particles.
- There are spaces between the particles.
- The particles are always moving.

Increasing temperature, will increase energy of the particles which causes the particles to mover faster. As they move quickly they bump into each other more quickly with they interact for a shorter period of time (shorter interactions) reducing internal friction or stress and therefore decreasing viscosity.

Affects of viscosity -- Temperature, Concentration,

Attractive forces, Particle Size

Solid - has a shape,
has a volume,
the particles are close together
and the particles vibrate

Liquid - has NO shape,
has a volume,
the particles are Farther apart together
and the particles flow freely

Gas - has NO shape,
has NO volume,
the particles VERY Far apart together
and the particles flow freely