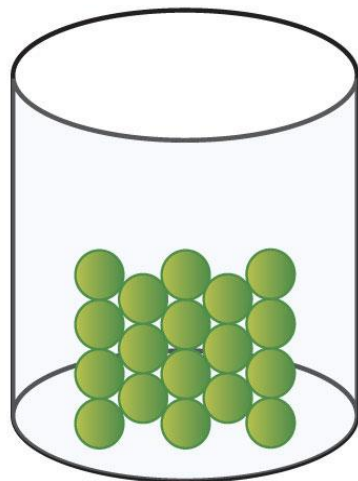
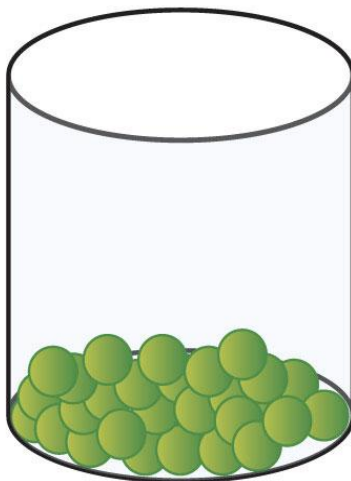


GENERAL CHEMISTRY STANDARD 2.2

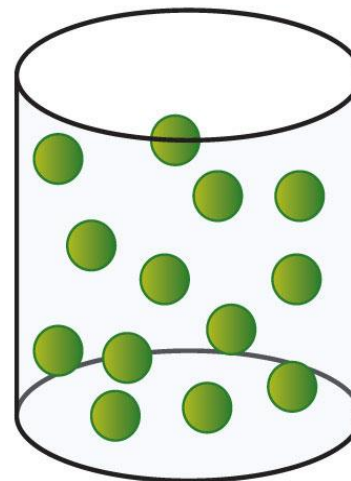
2.2: Apply the definition of heat to the molecular level



Solid



Liquid



Gas

Heat is a measure of the average kinetic measure of the particles in the substance

The amount of heat energy that a substance has is measured by its **temperature** (preferably **Absolute Temperature, or K**)

MOLECULAR MOVEMENT

- All particles in a substance are moving
 - Solid – particles vibrating (higher temperature, more vibrating)
 - Liquid – particles vibrating and sliding (higher temperature, more sliding)
 - Gas – particles flying around (higher temperature, faster particles)
- All particles are moving, even in very cold substances
 - **Absolute Zero** – coldest possible temperature, 0 K, particles stop moving
- The higher the temperature, the more particle movement
 - **Kinetic Theory of Matter** – all matter consists of particles that are in constant movement, and the movement is directly related to the temperature of the substance.