

Kinetic Theory of Matter

Definitions

Matter: Anything that has mass and volume.

Mass: How heavy an object is.

Measured in grams (g) and kilograms (kg).

Volume: How much space an object takes up. Measured in milliliters (mL), liters(L) and cubic centimeters (cc).

Kinetic energy: Energy of motion.

Kinetic Theory of Matter

1. All matter is made of small particles.
2. There is empty space between particles.
3. Particles are constantly moving.
4. The more energy the particles have, the faster they move.

States of Matter

Solid: Particles vibrate but do not move around freely, both volume and shape are fixed.

Liquid: Particles stick together but slide around, volume is fixed but shape changes to fit container.

Gas: Particles move in all directions, volume and shape both change to fit container.

Partner Questions:

1. What is something which is an example of matter?
2. What is something which is NOT an example of matter?
3. What is something which has quite a bit of mass but very little volume?
4. What is something with quite a lot of volume but very little mass?
5. Other than water, ice and steam give an example of a solid, a liquid and a gas (they don't all have to be the same type of material.)