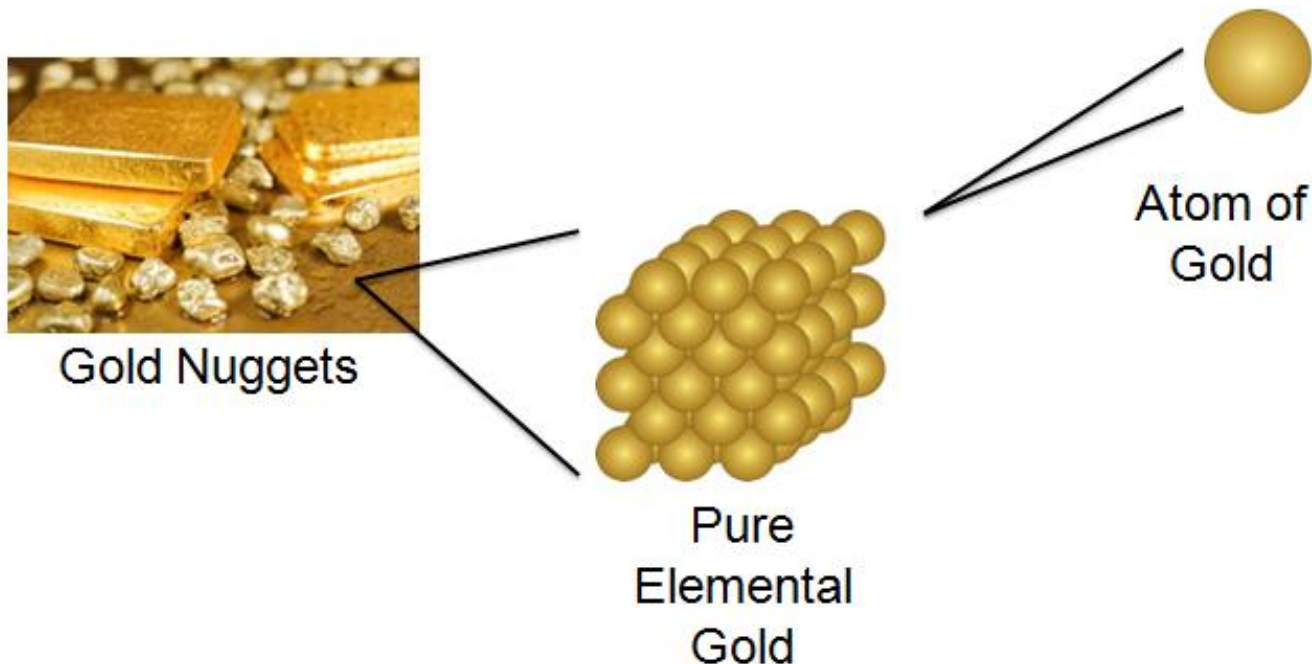


Formation of a New Substance

Picture Vocabulary

Matter and Energy

Element



A pure substance composed of the same type of atom throughout.

Chemical Change



A change that alters the identity of a substance resulting in a new substance or substances with different properties.

Physical Change



A change to a substance that occurs without forming a new substance, such as a change in size or state of matter.

Chemical Property



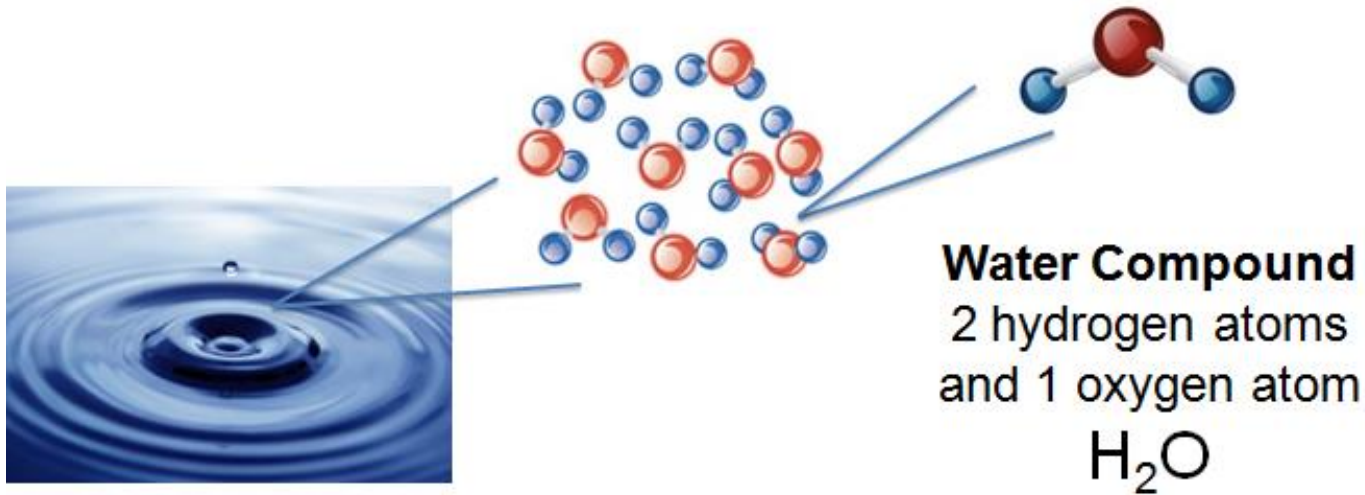
A characteristic that can only be observed or measured when atoms of matter rearrange during a chemical change.

Physical Property



Characteristic that can be observed or measured without changing the substance; for example, color, melting point, or conductivity.

Compound



Pure substance made of two or more kinds of atoms bound together.

Properties



Physical and chemical characteristics of matter used to describe or identify a substance.

States of Matter



Distinct forms of matter known in everyday experience: solid, liquid, and gas; also referred to as phases.

Production of Heat or Light



Evidence of release of energy during a chemical change.

Production of a Precipitate



Evidence of a new substance formed from a chemical change, resulting in solid particles that form or separate out of a liquid.

Production of Gas



Evidence of a new substance formed from a chemical change.

Substance



Water



Helium Gas



Gold

Any form of matter that is uniform throughout and has consistent properties.

Color Change



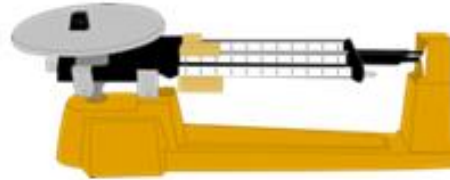
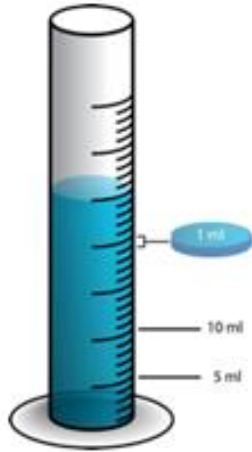
Visible change in substance coloration is evidence of a new substance formed from a chemical change.

Temperature Change



Increase or decrease of heat energy in a substance may be evidence of a new substance formed during a chemical change.

Matter



Matter is anything that has volume and mass.
Matter occurs as elements, compounds,
and mixtures.