

Vocabulary: Phases & Changes of Matter, Part 2

physical property: A characteristic of a pure substance that can be observed without changing it into another substance.

- Some of the more common physical properties are color, odor, hardness, and texture. More physical properties are listed in the table below:

Physical Property	What it Describes
state (or phase)	solid, liquid, gas
melting point	the temperature at which a solid becomes a liquid
boiling point	the temperature at which a liquid becomes a gas
electrical conductivity	the ability to carry electrical current (electricity)
thermal conductivity	the ability to transfer heat
magnetism	the ability to attract or repulse other matter

chemical property: A characteristic of a pure substance that describes its ability to change into different substances.

Chemical Property	What it Describes
flammability	the ability to burn
toxicity	how poisonous something is
pH	the acidity of a liquid substance
reactivity	the response of one substance to another
rusting	iron reacting with oxygen

physical change: A change in a substance that does not change its identity.

chemical change: A change in which one or more substances combine or break apart to form new substances.

- Possible signs of a chemical change:
 - Heat is produced that was not there before.
 - Light is produced that was not there before.
 - Smoke or fumes are produced.
 - The substances fizz (means a gas phase material is being produced).
 - Solid substances appear (means a solid phase material is being produced).
 - The substances change color.
 - The substances smell different.