

PHYSICAL AND CHEMICAL PROPERTIES AND CHANGES

PHYSICAL PROPERTY	CHEMICAL PROPERTY
1. observed with senses	1. indicates how a substance
2. determined without destroying matter reacts with something else	2. matter will be changed into a new substance after the reaction

Identify the following as a chemical (CP) or physical property (PP):

density	supports combustion	dissolves in water
flammability (burns)	sour taste	reacts with acid
solubility (dissolves)	melting point	Luster
hardness	odor	boiling point
blue color	reacts with air	melting point

PHYSICAL CHANGE	CHEMICAL CHANGE
1. a change in size, shape, or state.	1. a change in the physical and chemical properties
2. no new substance is formed	2. a new substance is formed

Identify the following as physical (PC) or chemical (CC) changes

NaCl (Table Salt) dissolves in water	Ag (Silver) tarnishes.	Paper towel absorbs water
Sugar dissolves in water	Wood rots	A tire is inflated
An apple gets cut.	Baking soda reacts to vinegar	Food is digested
Heat changes H ₂ O to steam	Fe (Iron) rusts	Grass grows
Alcohol evaporates	Ice melts	Pancakes cook
Milk sours	Water freezes	A dead tree decays

Physical and Chemical Changes

Can you recognize the chemical and physical changes that happen all around us? If you change the way something looks, but haven't made a new substance, a physical change (PC) has occurred. If the substance has been changed into another substance, a chemical change (CC) has occurred.

An ice cube is placed in the sun. Later there is a puddle of water. Later still the puddle is gone	Two chemicals are mixed together and a gas is produced
Mixing salt and pepper	A marshmallow is cut in half.
A bicycle changes color as it rusts	A marshmallow is toasted over a campfire.
A solid is crushed to a powder	Chocolate syrup is dissolved in milk.
Two substances are mixed and light is produced	A piece of ice melts and reacts with sodium