

Definitions of Properties

Physical properties can be _____ without _____ matter.

Chemical properties describe how a _____ with other _____.

Examples of Properties

Physical properties

Chemical properties

Phases of Matter

Solids _____ shape _____ volume
particles _____

Liquids _____ shape _____ volume
particles have _____ to _____

Gases _____ shape _____ volume
particles _____

Types of Changes

physical change-- _____ in _____ of substance

chemical change-- _____ or more _____ substances produced

PHASE CHANGES ARE _____.

freezing point— _____ to _____

melting point— _____ to _____

_____ point = _____ point

boiling point— _____ to _____

condensation point— _____ to _____

sublimation point— _____ to _____

Examples of Changes

Physical Changes

Chemical Changes

Law of Conservation of Mass—Mass _____ be _____
_____.

The Chemistry Quiz

CR1. _____

CR2. _____

1. _____

2. _____

3. _____

4. _____

5. _____

Read the following properties and changes. Decide if each one is physical (P) or chemical (C), and whether it is a property (P) or a change (C).

Thus, something that is a physical change would be labeled PC.

boiling point

color

getting a haircut

acidity

lighting a candle

texture

flammability - the ability of an object to support combustion

combustibility - the ability of an object to burn or ignite

ice cube melting

melting point

dry ice "smoking" at a concert

alka seltzer tablets fizzing

glass of water "sweating"

formation of acid rain

malleability - the ability of a substance to be hammered into a flat sheet

density

Worksheet #2: Physical/Chemical
Properties/Changes

Name _____

I. Fill in the Blanks

_____ properties can be observed without chemically changing matter.
_____ properties describe how a substance interacts with other substances. _____ have definite shapes and definite volumes.
_____ have indefinite shapes and definite volumes. _____ have indefinite shapes and indefinite volumes.

Phase changes are _____ changes. _____ point is the temperature at which a liquid turns to a solid. It is also equal to the _____ point which is the temperature at which a _____ turns to a _____. _____ point is the temperature at which a liquid turns to a gas, and _____ point is the temperature at which a gas turns to a liquid. Occasionally, a solid turns directly into a gas without turning into a liquid first. This is called _____.

II. Label these properties as chemical (C) or physical (P). Be certain to know the definition of each of these properties.

combustibility	_____	density	_____
malleability	_____	tendency to corrode	_____
weight	_____	volume	_____
failure to react	_____	melting point	_____
ductility	_____	odor	_____
texture	_____	flammability	_____

III. Label these changes as chemical (C) or physical (P).

digestion of food	_____	explosions	_____
getting a haircut	_____	lighting a candle	_____
evaporation	_____	tarnishing silver	_____
ice cube melting	_____	formation of acid rain	_____
crushing rocks	_____	dissolving salt in water	_____