Name: _____ **Date:** _____
Chemistry *~ Ms. Hart* **Class:** Anions or Cations

2.1 Physical and Chemical Change

1. Circle the correct response to classify the following (P for physical and C for chemical):

a. breaking a pencil in two –

b. water freezing and forming ice -

c. frying an egg -

d. burning wood -

e. leaves changing colors in the fall -

f. crushing an aluminum can -

g. recycling used aluminum cans to make new aluminum cans -

h. aluminum combining with oxygen to form aluminum oxide -

2. List four indicators that a chemical change has occurred.

1.

2.

3.

4.

3. Describe in your own words, the difference between a physical and chemical change.

4. A friend tells you, “Because composition doesn’t change in a physical change, the appearance of a substance does not change.” Is your friend correct?

More questions on the back!

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Answer the following Regents multiple-choice questions, by circling the correct response.

1. Which statement describes a chemical property of silicon?
a. Silicon has a blue-gray color.
b. Silicon is a brittle solid at 20.°C.
c. Silicon melts at 1414°C.
d. Silicon reacts with fluorine

2. At STP, which physical property of aluminum always remains the same from sample to sample?
a. mass
b. density
c. length
d. volume

3. Which statement describes a chemical property of aluminum?
a. Aluminum is malleable.
b. Aluminum reacts with sulfuric acid.
c. Aluminum conducts an electric current.
d. Aluminum has a density of 2.698 g/cm^3 at STP.

4. Which statement describes a chemical property of bromie?
a. Bromine is soluble in water.
b. Bromine has a reddish-brown color.
c. Bromine combines with aluminum to produce $AlBr_3$
d. Bromine changes from a liquid to a gas at 332 K and 1 atm.

5. A large sample of solid calcium sulfate is crushed into smaller pieces for testing. Which two physical properties are the same for both the large sample and one of the smaller pieces?
a. mass and density
b. mass and volume
c. solubility and density
d. solubility and volume

6. Which statement describes a chemical property of hydrogen gas?
a. Hydrogen gas burns in air.
b. Hydrogen gas is colorless.
c. Hydrogen gas has a density of 0.000 09g/cm^3 at STP.
d. Hydrogen gas has a boiling point of 20. K at standard pressure.

7. Which process is a chemical change?
a. melting of ice
b. boiling of water
c. subliming of ice
d. decomposing of water

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