

Name _____ Date _____



PHYSICAL VS CHEMICAL PROPERTIES QUIZ- Answer Key

1. Differentiate between physical and chemical properties.

- **Physical properties:** Properties that a substance shows by itself without interacting with another substance.
- **Chemical Properties:** A substance's ability to interact with other substances or to change into another substance (or substances)

2. Classify the following as physical or chemical property by putting a tick in the appropriate box

Property	Physical Property	Chemical Property
Denser than water	✓	
Supports combustion		✓
Tastes bitter	✓	
Reacts with metals		✓
Doesn't dissolve in water	✓	
Can neutralize an acid		✓
The substance smells	✓	
The luster is bright	✓	
Can be bent without breaking	✓	
Produces hydrogen gas when heated		✓
A white substance	✓	

3. Which of the following is a chemical property? _____

A. Color

- B. State of matter
- C. Boiling point
- D. Corrosiveness**
- E. Hardness

4. Which of the following is a physical property? _____

- A. Flammability
- B. Reactivity
- C. Size**
- D. Decomposition

5. Which of the following statements describes a chemical property?

- _____
- A. Copper objects turn green when exposed to moist air for a prolonged period.**
 - B. Aluminum metal is a solid at room temperature.
 - C. Potassium metal reacts vigorously with water to form potassium hydroxide solution and hydrogen gas.**
 - D. The density of Lithium metal is 0.534g/ml at 20°C.

6. Which of the following statements is true? _____

- A. Being a liquid at room temperature is a chemical property of Mercury.
- B. Resisting change when exposed to air for a prolonged period is a chemical property of Gold.**
- C. Noble gases reacting less with the environment is a physical property of noble gases.
- D. Having a reddish-brown color is a chemical property of Copper.

7. Circle the choice that best completes the statement or answers the question.

- a. (Physical or Chemical or **both**) properties describe matter.
- b. (**Physical** or Chemical or both) properties of a substance can be easily observed.

- c. (Physical or **Chemical** or both) properties usually describe how a substance reacts.
- d. (Physical or **Chemical** or both) properties are not as easy to observe.
- e. (Physical or Chemical or **both**) properties can be used to identify substances.

b) By putting a tick in the appropriate box, identify if the following are chemical or physical properties:

Property Description	Physical Property	Chemical Property
Oxygen is odorless and colorless	✓	
Copper turns green when exposed to the environment		✓
The piece of metal is magnetic	✓	
Diamond is a very hard substance	✓	
The tree is 8 meters high	✓	
Sodium reacts very easily with other elements.		✓
A student's shirt suddenly bursts into flames.		✓
The color of the ball is red	✓	
Iron reacts with oxygen and forms rust		✓
The boiling point of water is 100 degrees C	✓	
The silver spoons tarnished and turned dark		✓
Argon is not very reactive		✓