



Pre-Assessment

Physical and Chemical Changes
Matter and Energy

Name: _____ Date: _____

1. If we have any substance, it can be concluded that a chemical change has happened if—
- A. there is a color change.
 - B. the state of matter changes.
 - C. there is a decrease in mass.
 - D. the matter is stirred thoroughly.



Pre-Assessment

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2. Which of the following would indicate the formation of a new substance?
- A. A liquid turns to a solid.
 - B. A sample of metal melts.
 - C. Bubbles and fizzing occur.
 - D. A solid dissolves in a liquid.

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Pre-Assessment

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3. Which of the following is an example of a physical change?
- A. An explosion
 - B. A solid stays a solid.
 - C. A piece of paper is crumpled.
 - D. Two liquids are mixed and it warms up.

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Pre-Assessment

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4. When two liquids are mixed, the container feels colder to the touch. This is evidence of what?
- A. A physical change
 - B. A chemical change
 - C. A state of matter change
 - D. No change



- 5 When two liquids are mixed, the color and temperature stay the same. This is evidence of what?
- A. A physical change
 - B. A chemical change
 - C. A state of matter change
 - D. No change

Chemical & Physical Changes Vocabulary

Matter- Anything that has mass and takes up space

Chemical change- When a substance changes into a new substance.

Physical change- When a substance changes in SIZE, SHAPE, VOLUME or PHASE.

Reactant- A substance/material used in a reaction

Product- A substance that is made during a chemical reaction

Combustion- The act of burning something

Melting- the change of state in which a solid becomes a liquid by adding energy

Boiling- the application of heat to change something from a liquid to a gas

Freezing- the change of state in which a liquid becomes a solid as energy as heat is removed

Evaporation- the change of state from a liquid to a gas

Condensation- the change from a gas to a liquid

Evidence- Supporting materials used to prove or disprove something

Reaction- A response to something

Endothermic- A reaction in which heat is absorbed.

Exothermic- A reaction in which energy is released.

Solid- A state of matter with definite volume and shape.

Liquid- A state of matter with a definite volume, but no definite shape.

Gas- A form of matter with indefinite shape and volume.

Name _____

Date _____

Period _____

Physical and Chemical Changes

Directions: Using the cards, write the vocabulary word, the definition then draw an illustration representing the definition in the table below.



Solid



Liquid



Gas

Vocabulary Word	Definition	Illustration

Name _____

Date _____

Period _____

Physical and Chemical Changes

Name _____

Date _____

Period _____

Physical and Chemical Changes



Name: _____ Date: _____

1. Fill in the following chart with your observations from the demonstration.

Physical and Chemical Changes			
Demonstration	What Happened	Change Observed	Type of Change Physical or Chemical
1	The apple was sliced.	Shape, size	Physical
2	The apple was smashed.	Shape, size	Phy
3	Paper burning	Color, smell, odor & dioxide	Chem
4	Glow stick glowing	color change new sub!	Chem
5	Apple flesh turning brown	color oxidation	chem
6	Milk and vinegar combined milk-base Vin-Acid	precipitate	Chem
7	Melted ice cube	state change melting	Physical

2. Why is cutting the apple considered a physical change?

3. Why is burning the paper considered a chemical change?

4. What do the physical change demonstrations have in common? Explain.

5. What do the chemical change demonstrations have in common? Explain.

CHEMICAL / PHYSICAL CHANGE WORK SHEET

NAME _____ PERIOD _____

A PHYSICAL CHANGE occurs when the physical properties become altered.

Cut paper in half, crunch a Frito, paint a boat, ice → water → steam.

A CHEMICAL CHANGE occurs when a substance becomes an entirely new and different substance.

Burn a match, digest some pizza, rust a bean can.

Directions: Decide if the changes are physical or chemical. Write the word chemical or physical in the boxes, next to the changes which have occurred. Spelling counts.

CHANGES OCCURRING	TYPE OF CHANGE
Snow melting	
No new substance is produced	
Mud dries and changes to dust	
A match stick turns to ash while burning	
Produces a new substance with different properties	
Teeth crushing food	
Breaking a glass window with a baseball	
Making salt by mixing sodium and chlorine together	
Water changes to steam	
Stomach acids dissolving pizza	
Hydrogen and oxygen gas combining to become water	
Grape juice changing to wine (fermenting)	
An iron pipe rusting	
Dew forming on a leaf	
Bending a nail with a hammer	



Name: _____ Date: _____

INSTRUCTIONS: Use the words in the box below to fill in the blanks based on what you have learned about physical and chemical changes. Words may be used more than once or not used at all.

Word Bank

Chemical Size Transformed Combined Separated Physical Freezing New

CLOZE 1

A(n) _____ change is any change in shape, _____, _____, or phase of matter of a substance. However, _____ substances are not produced or formed during a physical change. An example of a phase change would be the _____ of water into ice. A(n) _____ change is a type of change where one substance is _____ into a different substance.

I. Vocabulary Matching

Match the term in the box to the correct definition.

_____ A change in the shape of a substance
_____ A transformation of one substance into another substance
_____ Results in a chemical change and the formation of a new substance
_____ Evidence of a chemical change

A. Chemical change
B. Physical change
C. Chemical reaction
D. Precipitate

II. Identification

Use the clues provided to fill in the blanks.

Phase Another Size Shape

1. A physical change is any change in the _____, _____, or _____ of matter of a substance.
2. A chemical change is one during which a substance is transformed into _____ substance.



Progress Monitoring Assessment

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Matter and Energy

Name: _____ Date: _____

1. Evidence of a chemical change can be observed when—

- A. a solid melts into a liquid.
- B. cookies are crumbled.
- C. a drink is poured from a can to a cup.
- D. a banana turns brown after being cut.



Progress Monitoring Assessment

Physical and Chemical Changes
Matter and Energy

2. Which of the following is an example of a chemical change that occurs in your home?

- A. Water boiling on the stove
- B. Composting your own fertilizer
- C. Smashing a window with a baseball
- D. Adding food coloring to icing for a cake

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Progress Monitoring Assessment

Physical and Chemical Changes
Matter and Energy

3. Which of the following is an example of a physical change in your home?

- A. Frying an egg
- B. Lighting a birthday candle
- C. Cooking a pizza in the oven
- D. A light bulb is hot after being on for a while

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Progress Monitoring Assessment

Physical and Chemical Changes
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4. Which of the following is not evidence of a chemical change?

- A. The temperature changes.
- B. A gas forms.
- C. A precipitate forms.
- D. A state of matter change happens.



Progress Monitoring Assessment

Physical and Chemical Changes
Matter and Energy

5. Which of the following is an example of both a physical and a chemical change?
- A. Chopping vegetables with a knife
 - B. Burning a candle
 - C. Dissolving hot cocoa mix in water
 - D. Pouring cold water on a hot object