

Chapter 2 Properties of Matter

Section 2.3 Chemical Properties**(pages 54–58)**

This section discusses chemical properties and describes clues that may show that a chemical change has taken place.

Reading Strategy (page 54)

Relating Text and Visuals As you read, complete the table by finding examples of the clues for recognizing chemical changes in Figures 19 and 20. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

Recognizing Chemical Changes	
Clue	Example
Change in color	Copper roof changing color from red to green when exposed to moist air
Production of gas	Formation of carbon dioxide gas when vinegar is added to baking soda
Formation of precipitate	Formation of cottage cheese curds when acid is added to milk.

Observing Chemical Properties (pages 54–55)

- Circle the letters of the compounds formed when a candle burns.
 - paraffin
 - water
 - carbon
- What is a chemical property? A chemical property is any property that produces a change in the composition of matter.
- Is the following sentence true or false? Flammability is a material's ability to burn in the presence of carbon dioxide. false
- The property that describes how readily a substance combines chemically with other substances is _____. Circle the correct answer.

reactivity malleability conductivity
- Circle the letter of each property that is a chemical property.
 - hardness
 - density
 - flammability

Chapter 2 Properties of Matter

Recognizing Chemical Changes (pages 56–57)

6. A _____ change occurs when a substance reacts and forms one or more new substances. Circle the correct answer.

distillation physical chemical

7. Circle the letters of examples of evidence for a chemical change.

- a. a change in color
- b. a filter trapping particles
- c. the production of a gas

Match each example to evidence of a chemical change.

Example	Chemical Change
<u>b</u> 8. Lemon juice is added to milk.	a. the production of a gas b. the formation of a precipitate
<u>c</u> 9. A silver bracelet darkens when exposed to air.	c. a change in color
<u>a</u> 10. Vinegar is mixed with baking soda.	

Is a Change Chemical or Physical? (page 58)

11. Is the following sentence true or false? When iron is heated until it turns red, the color change shows that a chemical change has taken place.

false

12. During a chemical change the composition of matter changes, but during a physical change, the composition of matter

stays the same.

13. Complete the following table about chemical changes.

Chemical Changes		
Type of Change	Are New Substances Formed?	Example
Chemical	Yes	Iron rusting
Physical	No	Sugar dissolving in water