

## 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	
Production of gas	
Formation of precipitate	

**Observing Chemical Properties (pages 54–55)**

- Is the following sentence true or false? The substances in paraffin do not change when a candle burns. \_\_\_\_\_
- Circle the letters of the compounds formed when a candle burns.
  - paraffin
  - hydrogen
  - water
  - carbon
- What is a chemical property? \_\_\_\_\_  
\_\_\_\_\_
- Is the following sentence true or false? Flammability is a material's ability to burn in the presence of carbon dioxide. \_\_\_\_\_
- The property that describes how readily a substance combines chemically with other substances is \_\_\_\_\_.
- Circle the letter of each property that is a chemical property.
 

a. hardness	b. density
c. flammability	d. reactivity
- Is the following sentence true or false? Nitrogen is a more reactive element than oxygen. \_\_\_\_\_

**Chapter 2 Properties of Matter**

8. Why isn't iron used to make coins? \_\_\_\_\_  
\_\_\_\_\_
9. What is the benefit of pumping nitrogen gas into seawater that is stored in steel tanks? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Recognizing Chemical Changes (pages 56–57)**

10. A(n) \_\_\_\_\_ change occurs when a substance reacts and forms one or more new substances.
11. What are three examples of chemical changes?  
a. \_\_\_\_\_ b. \_\_\_\_\_  
c. \_\_\_\_\_
12. 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  
d. the formation of a solid precipitate

*Match each example to evidence of a chemical change.*

Example	Chemical Change
_____ 13. Lemon juice is added to milk.	a. the production of a gas b. the formation of a precipitate
_____ 14. A silver bracelet darkens when exposed to air.	c. a change in color
_____ 15. Vinegar is mixed with baking soda.	

**Is a Change Chemical or Physical? (page 58)**

16. 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. \_\_\_\_\_
17. When matter undergoes a chemical change, the composition of the matter \_\_\_\_\_.
18. When matter undergoes a physical change, the composition of the matter \_\_\_\_\_.
19. Complete the following table about chemical changes.

Chemical Changes		
Type of Change	Are New Substances Formed?	Example
Chemical		
Physical		