

Name \_\_\_\_\_ Date \_\_\_\_\_

# Chemical Reactions



Grade 8 Science Content Standards—3.b: Students know that compounds are formed by combining two or more different elements and that compounds have properties different from their constituent elements.  
Also covers: 3.f, 5.a, 5.b, 5.c, 7.c

## Before You Read

*Before you read the chapter, think about what you know about the topic. List three things that you already know about the chemical reactions in the first column. Then list three things that you would like to learn about chemical reactions in the second column.*

<b>K</b> <b>What I know</b>	<b>W</b> <b>What I want to find out</b>



*Construct the Foldable as directed at the beginning of this chapter.*

### Science Journal

*Write three questions you would like to ask a chemist about air bags.*

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# Chemical Reactions

## Lesson 1 Chemical Properties and Changes



Grade 8 Science Content Standards—7.c: Students know substances can be classified by their properties, including their melting temperature, density, hardness, and thermal and electrical conductivity. Also covers: 5.a

**Scan** the headings in Lesson 1 of your book. Identify three topics that will be discussed.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**Review Vocabulary**

**Define** physical property, using your book or a dictionary. Then use the term in a scientific sentence.

*physical property*

\_\_\_\_\_  
\_\_\_\_\_

**New Vocabulary**

Write a paragraph using all of the vocabulary terms.

*chemical property  
chemical change  
dissolving*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Academic Vocabulary**

Use a dictionary to define compound.

*compound*

\_\_\_\_\_  
\_\_\_\_\_

Lesson 1 Chemical Properties and Changes (continued)

**Main Idea**

**Ability to Change**

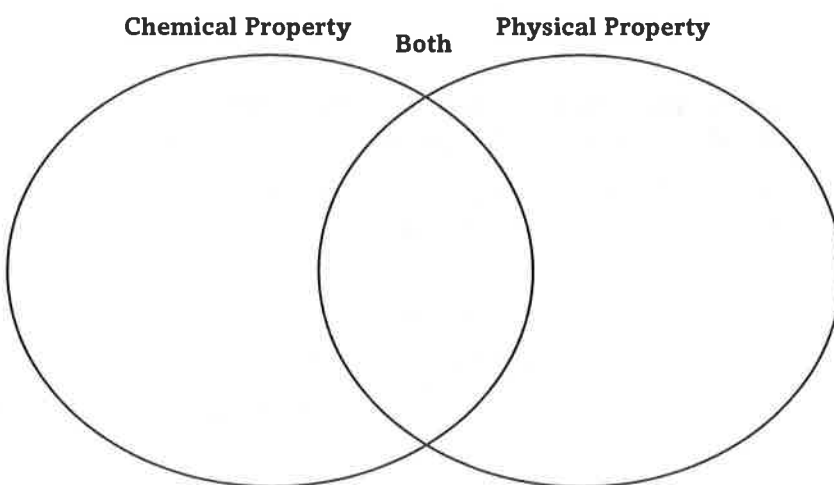
*I found this information on page \_\_\_\_\_.*

*I found this information on page \_\_\_\_\_.*

**Details**

**Compare and contrast** chemical properties *and* physical properties *by filling in the Venn diagram using the phrases listed.*

- used to identify a substance
- observed without changing the identity of a substance
- ability to burn is an example
- color is an example
- observed by changing the identity of a substance



**Identify** at least one chemical property for each substance.

Substance	Chemical Property
Iron	
Paper	
Helium gas	
Hydrogen gas	
Copper	

**SUMMARIZE IT**

Summarize the main ideas of the above section.

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Lesson 1 Chemical Properties and Changes (continued)

**Main Idea**

**Ability to Change**

I found this information on page \_\_\_\_\_.

**Chemical and Physical Changes**

I found this information on page \_\_\_\_\_.

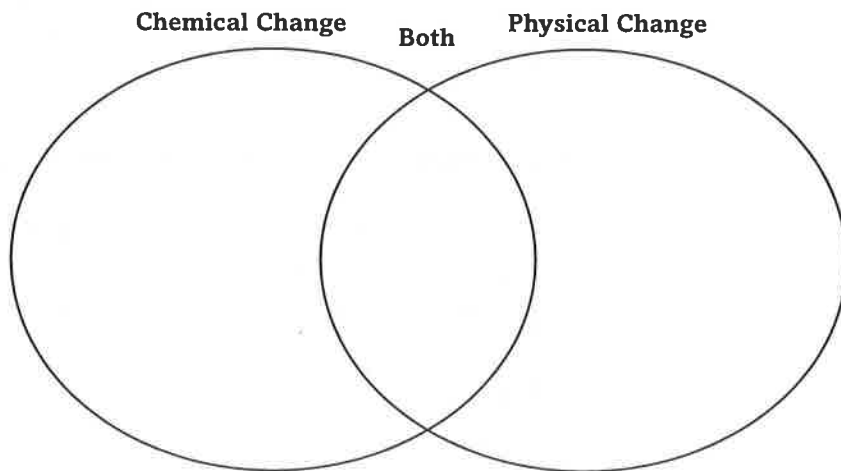
**Details**

Identify *six examples* of physical properties of matter.

Examples of Physical Properties of Matter	
1.	4.
2.	5.
3.	6.

Compare and contrast chemical changes *and* physical changes by completing the Venn diagram, using the phrases listed.

- properties of substance change
- can often be reversed
- not easily reversed
- forms new substance
- identity of substance does not change
- dissolving is an example
- burning is an example
- includes changes of state



**SUMMARIZE IT**

Summarize three main ideas of the above sections.

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