Magnetism • Guided Reading and Study

Read these pages in your textbook!

What Is Magnetism? (pp. 6–11)

This section describes the properties of a magnet and explains how magnetic poles interact. The section also describes the shape of a magnetic field.

Use Target Reading Skills

Before you read, look at the headings and visuals to see what this section is about. Then write what you know about magnetism on the lines below. As you read, write what you learn.

<table>
<thead>
<tr>
<th>What You Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Magnets stick to refrigerators.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What You Learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
</tr>
</tbody>
</table>

Properties of Magnets (p. 7)

1. What is a magnet?

2. Circle the letter of the mineral in rocks that is magnetic.
   a. magnesia
   b. polaris
   c. magnetite
   d. lodestone

© Pearson Education, Inc., publishing as Pearson Prentice Hall. All rights reserved.
What is Magnetism?

3. The attraction or repulsion of magnetic materials is called

4. Is the following sentence true or false? Magnetic rocks are known as lodestones.

5. What are three properties that magnets have?
   a. 
   b. 
   c. 

Magnetic Poles (p. 8)

6. Any magnet, no matter what its shape, has two ends, each one called a(n)

7. Circle the letter of each sentence that is true about magnetic poles.
   a. One pole of a magnet will point north.
   b. Both the north and the south pole always point north.
   c. Two north poles make up a pair of unlike, or opposite, poles.
   d. The pole that points south is labeled the south pole.

8. Where is the magnetic force of a magnet strongest?

9. How are magnetic poles labeled?
10. Complete the table below by writing whether the magnets in each pair described in the first column will repel or attract each other.

<table>
<thead>
<tr>
<th>Magnetic Attraction</th>
<th>Repel or Attract?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two south poles are brought near each other.</td>
<td>a.</td>
</tr>
<tr>
<td>A north pole is brought near a south pole.</td>
<td>b.</td>
</tr>
<tr>
<td>Two north poles are brought near each other.</td>
<td>c.</td>
</tr>
<tr>
<td>A south pole is brought near a north pole.</td>
<td>d.</td>
</tr>
</tbody>
</table>

11. What is magnetic force?

12. Is the following sentence true or false? Any material that exerts magnetic force is considered a magnet.

**Magnetic Fields** (pp. 9–11)

13. The region of magnetic force around a magnet is known as its

14. What are the lines called that map out the magnetic field around a magnet?

15. Draw a magnetic field around the illustration of the bar magnet shown here.

16. When the magnetic fields of two or more magnets overlap, what is the result?
What Is Magnetism?

Understanding Main Ideas
Label the parts of the figure below for items 1 and 2, and then answer items 3 and 4 in the space provided.

3. Are these magnets attracting or repelling each other? How can you tell?

4. What would happen if the magnet on the left were turned around, so that its north pole faced the north pole of the other magnet?

Building Vocabulary
Fill in the blank to complete each statement.

5. Any magnet has two ends, each one called a(n) _________________.

6. _________________ are the lines that map out the magnetic field around a magnet.

7. A(n) _________________ is any material that attracts iron and materials that contain iron.

8. The attraction or repulsion between magnetic poles is _________________.

9. The area of magnetic force around a magnet is known as its _________________.

© Pearson Education, Inc., publishing as Prentice Hall. All rights reserved.

50