

**Review and Reinforce**

# The Excretory System

## Understanding Main Ideas

Answer the following questions in the spaces provided.

1. What is excretion?

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2. Compare and contrast ureters and the urethra.

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3. What is urea?

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4. What is urine?

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5. How do the kidneys maintain water balance in the body?

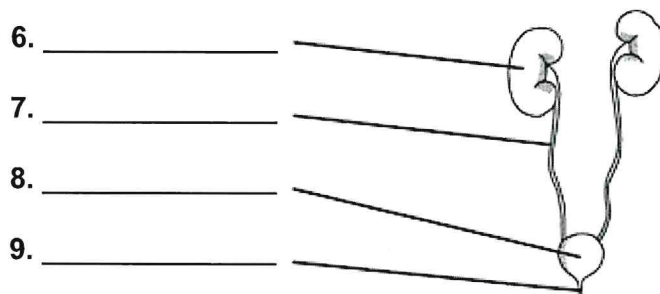
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## Building Vocabulary

Label the diagram with the names of the parts of the excretory system.



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# Magnetic Fields

**Understanding Main Ideas**  
Answer the following questions in the spaces provided.

1. In what ways are Earth and a bar magnet alike?

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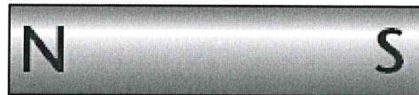
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2. If you follow a compass pointing north, will you reach the geographic north pole? Explain your answer.

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



**Building Vocabulary**  
Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

4. \_\_\_ magnetic field

a. navigation device whose magnetized needle usually points north

5. \_\_\_ declination

b. map the invisible field around a magnet

6. \_\_\_ magnetic field lines

c. angle between geographic north and the north to which a compass needle points

7. \_\_\_ compass

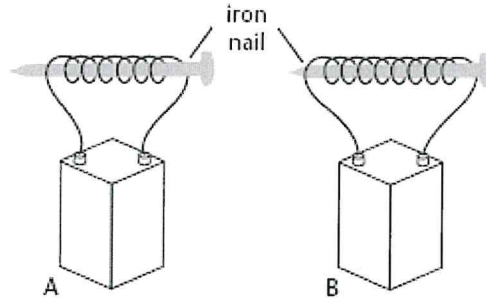
d. area of magnetic force around a magnet

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# Electromagnetic Force

## Understanding Main Ideas

Use the illustration below to answer Questions 1–3.



1. What kind of magnets are shown in the figure above?  
\_\_\_\_\_
2. Assuming the batteries are the same, which magnet do you think is stronger, A or B? Explain your answer.  
\_\_\_\_\_
3. List four factors that can be varied to change the strength of the magnets.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Building Vocabulary

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

- |                         |   |
|-------------------------|---|
| 4. ___ electromagnetism | a. a solenoid with a ferromagnetic core               |
| 5. ___ solenoid         | b. the relationship between electricity and magnetism |
| 6. ___ electromagnet    | c. a coil of wire with a current                      |

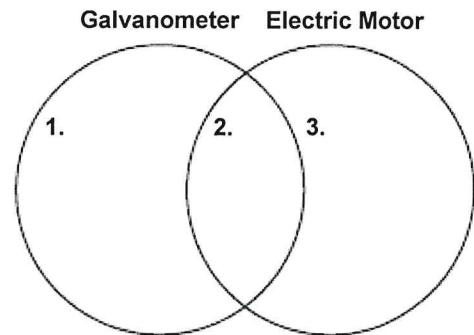
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# Electricity, Magnetism, and Motion

## Understanding Main Ideas

For Questions 1–3, write the letter of each characteristic in the correct area of the Venn diagram.

- a. transforms electrical energy to mechanical energy
- b. contains a loop of wire with a current in a magnetic field
- c. rotates only half a turn
- d. rotates continuously
- e. turns an axle
- f. turns a pointer on a scale
- g. current is reversed
- h. current is not reversed



## Building Vocabulary

Fill in the blank to complete each statement.

- 4. A device that uses electric current to turn the blades of a blender is an example of a(n) \_\_\_\_\_.
- 5. A moving fan blade has a type of energy called \_\_\_\_\_.
- 6. Electric current can be measured with a device called a(n) \_\_\_\_\_.
- 7. \_\_\_\_\_ is the ability to move an object some distance.
- 8. An electric motor turns an axle by transforming \_\_\_\_\_ into mechanical energy.

## Review and Reinforce

# Electricity From Magnetism

### Understanding Main Ideas

Fill in the blank to complete each statement about generators.

1. As a generator crank is turned, the \_\_\_\_\_ rotates in the magnetic field.
2. The up-and-down motion of the armature induces a(n) \_\_\_\_\_ in the wire.
3. After the armature turns halfway, each side of it \_\_\_\_\_ direction in the magnetic field.
4. The result is that a(n) \_\_\_\_\_ electric current is induced.

### Building Vocabulary

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

- |                                  |   |
|----------------------------------|---|
| 5. ___ electromagnetic induction | a. device that increases or decreases voltage                                   |
| 6. ___ alternating current       | b. generating a current from the motion of a conductor through a magnetic field |
| 7. ___ direct current            | c. type of current found in the circuits of homes                               |
| 8. ___ electric generator        | d. type of current produced by a battery  |
| 9. ___ transformer               | e. device that transforms mechanical energy into electrical energy              |