

SECTION

CHARGES CAN MOVE FROM ONE PLACE TO ANOTHER.

10.2 | Reading Study Guide B**BIG IDEA** Moving electric charges transfer energy.**KEY CONCEPT** Charges can move from one place to another.**Review**

Static charges are built up by separating electrons from protons.

Take Notes**I. Static charges have potential energy. (p. 350)**

- Fill in the combination notes for the main idea shown.

Notes	Sketch to Explain
Static charges have potential energy. • Static charges can move. • _____ • _____	

A. Potential Energy and Electric Potential (p. 351)

- Fill in the four-square diagrams for *electric potential*.

Definition:	Characteristics:
Examples: 120 volts	Nonexamples: an uncharged balloon

ELECTRIC POTENTIAL

- Explain the relationship between volt and electric potential.
-

B. Charge Movement and Lightning (p. 352)

- What two factors determine whether or not a static charge will move from one position to another?
-

5. Draw a storm cloud and the ground below it. Draw charges on the cloud and on the ground below to show how they are charged right before a lightning strike.

II. Materials affect charge movement. (p. 354)

6. Does a charge move more easily through metal or air? _____

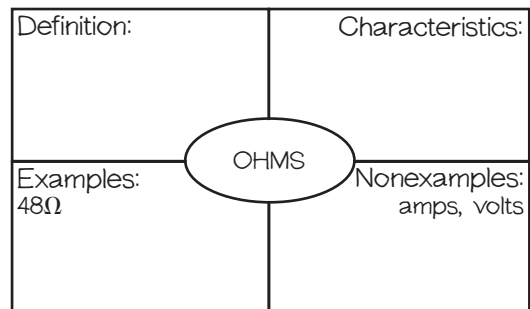
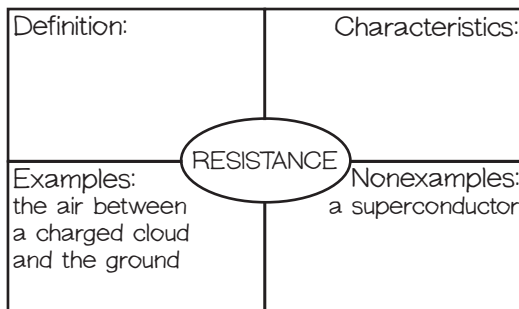
A. Conductors and Insulators (p. 354)

7. Fill in the combination notes for the main idea shown.

Notes	Sketch of an Example
Materials affecting electric charge: • Conductors _____ • Insulators _____	

B. Resistance (p. 355)

8. Fill in the four-square diagrams for *resistance* and *ohms*.



C. Superconductors and Grounding (p. 356)

9. Why aren't superconductors practical sometimes?

10. What is grounding?
