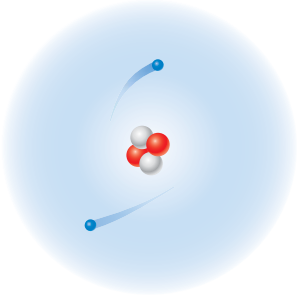
Sum It Up »

The outline below is a summary of the lesson. Complete the outline.



I. Electric Charges

A. Each of the three types of particles that make up atoms has a different charge.

1. Protons have a positive charge.

2. _____

3. _____

B. Atoms can gain or lose electrons.

II. Static Electricity

A. Definition: the buildup of electric charge on an object

B. Objects with charges interact with each other.

1. Like charges repel.

2. _____

III. Electrostatic Discharge

A. Definition: the jumping of electrons from one object to another

B. Examples

1. Getting shocked after walking across a rug

2. _____

IV. Electric Current

A. Definition: _____

B. Sources

1. _____

2. Electricity generating stations

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Name _____

Vocabulary Review

1 Use the clues to unscramble the words in the box. Use the word bank if you need help.

1. leepr: what two positive charges do to each other _____
2. trattac: what a positive charge and a negative charge do to each other _____
3. cattis: the type of electricity that results from the buildup of electric charge on an object _____
4. ntrruce: The steady flow of electric charges along a path is electric _____. _____
5. stipoive: the charge of a proton _____
6. ratleun: the charge of a neutron _____
7. ateenvig: the charge of an electron _____
8. ategenring nattsoi: where electricity is produced _____

WORD BANK:

positive	negative	neutral	current
attract	repel	static	generating station

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Apply Concepts

2 List the three particles that make up an atom. Describe the charge of each particle.

Parts of an Atom	
Particle	Charge

Where are these particles found in an atom?

_____

_____

_____

3 Draw an atom with 9 protons, 10 neutrons and a charge of –1. Label each part in your drawing.

4 Explain why the balloons are sticking to this cat.

_____

_____

_____

_____

_____

5 Look at the pairs of objects below. The charge of each object is shown. Tell how each pair will interact. Write *attract, repel*, or *nothing*.

+22	–34	_____
0	+130	_____
–40	–81	_____
0	0	_____

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6 Complete the sequence graphic organizer.

A wool sock and a cotton shirt _____ against each other in a dryer.

↓

Electrons move from the wool to the _____ .

↓

The two pieces of clothing have _____ charges and they _____ each other.

7 List three ways in which electric current helps you do work, and describe the energy transformation that takes place.

_____

_____

_____

_____

_____

_____

_____

_____

_____

8 Explain why the event in the drawing takes place.

_____

_____

_____

_____

_____

_____

_____

_____

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9 Match each drawing with its description. Circle the drawings that show sources of current that people use every day.

electric current	static electricity	electrostatic discharge	battery




10 Suppose you are playing soccer at a park and you hear thunder that sounds far away. Describe some things you should and should not do to stay safe.

_____

_____

_____

_____

_____

_____

Take It Home! Do your clothes stick together when they come out of the dryer? If so, how could you prevent this from happening? If not, why don't they stick together? When you put on a sweater, does it ever stick to your hair? Does this happen throughout the year, or only at certain times?

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