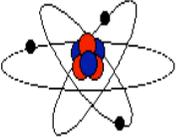
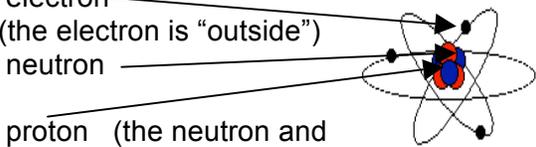
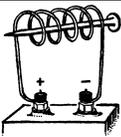
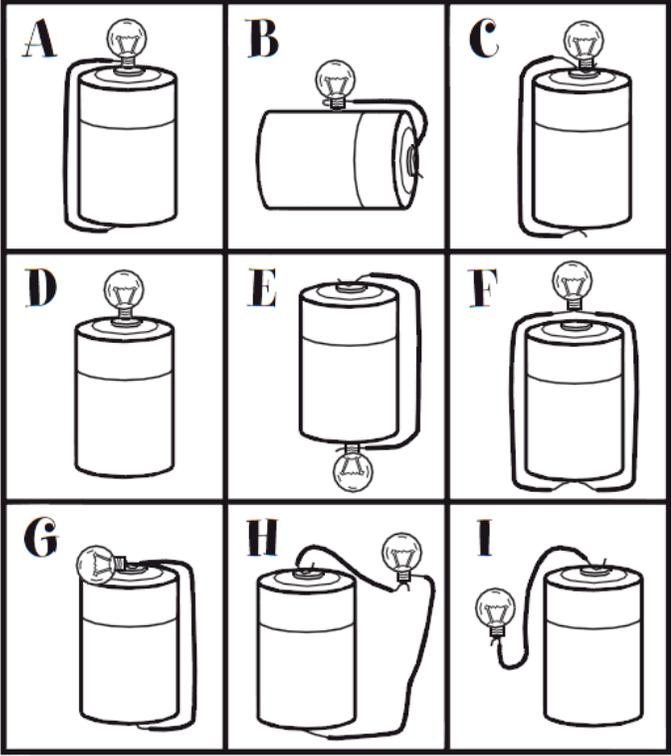
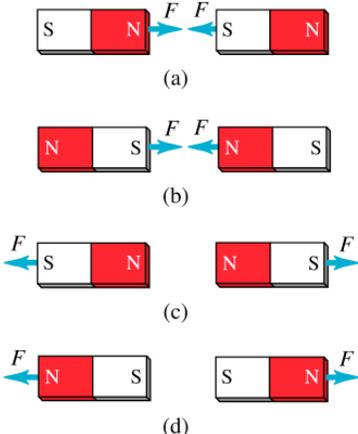
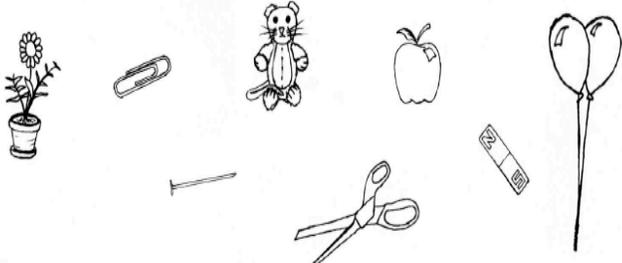


## Electricity Study Guide

QUESTIONS	ANSWERS
Electricity is a form of _____.	energy
When (negative) electrons move from one material to another, the material they moved from has what kind of charge?	Positive because the protons are now "exposed" and their influence can be felt.
Why will one material "cling" to another material? (Like a balloon clinging to a wall.)	One material has a negative charge and the other material has a positive charge, so they attract or "cling to" each other. (The balloon is negative, the wall is positive.)
True or False? Friction causes static electricity.	False. When two unlike, insulating materials are placed into close contact with each other and then separated, you get static electricity.
What are the parts of an atom? 	electron (the electron is "outside") neutron proton (the neutron and protons are "inside") 
Motion is produced from _____ energy.	electrical
What is current?	The apparent motion of electrons along a conductor. It is a flow of charge.
What does a "resistor" do?	It is the appliance that changes the current into heat or light or motion.
What three things must a complete circuit have?	<ul style="list-style-type: none"> <li>• source (battery/dry cell)</li> <li>• conductor (wire)</li> <li>• resistor or appliance (bulb, fan, buzzer, and so on.)</li> </ul>
True or False? Materials can be both a conductor and an insulator.	False. It will be either one or the other, but not both.
What does "conductor" mean?	Material that moves an electrical charge easily.
Which of these are conductors? plastic, paper clip, rubber, wire	paper clip and wire
Which of these are insulators? iron, rubber, glass, nail	rubber, glass
The cord to a lamp has both a conductor and an insulator. Name each part of the cord.	Conductor: wire on the inside of the cord Insulator: plastic on the outside of the cord
Every magnet has two poles, a _____ and a _____ pole.	north pole and south pole
Like charges _____ and unlike charges _____.	Like = repel (push away) Unlike = attract (pull together)
What can a magnet pick up or attract?	Anything with iron in it or that can be magnetized (such as nickel and cobalt).
What is this? 	An electromagnet.
True or False? An electromagnet must have an iron nail.	False. An electromagnet is wire coiled around a cylinder. It can be a nail, but it may or may not have an iron core.
Name three different uses of electricity in daily life.	Run appliances such as: air conditioner, dish washer, lamns refrigerator oven stove television projector

How are electricity and magnetism connected?	Electric currents produce magnetism.
How are magnets used in everyday life?	Magnets are used to: hold things together, are used in speakers and motors, computer hard drives, in toys and on bank cards.
What is a switch?	A switch is a tool in an electric circuit that can open or close the circuit. (open = doesn't work) (closed = complete circuit works)
<p>Which ones make a complete circuit?</p> 	<p>A. Yes      F. No          B. No      G. No          C. No      H. Yes          D. No      I. No          E. Yes</p> <p>(The problem with C is the wire is touching the bottom of the bulb where the bulb touches the battery. It needs to touch the metal side of the bulb. Notice how in E the wire is at the side of the bulb while the bottom of the bulb touches the battery. In F the bulb is not touching the battery. On G, the wire is touching the bottom of the bulb and the bottom of the battery. Nothing is touching the metal side of the bulb.)</p>
<p>What do the arrows mean?</p>  <p>Copyright © Addison Wesley Longman, Inc.</p>	<p>They show whether the magnets are attracted to or repelled by each other.</p> <p>(Remember, "opposites attract, likes repel.")</p>
<p>Which items are attracted to the magnet?</p> 	<p>Flower: No      Apple: No          Paperclip: Yes      Scissors: Yes          Nail: Yes      Magnet: Yes          Stuffed Animal: No      Balloons: No</p>