



Family Fun Activities

Take a Trip to:



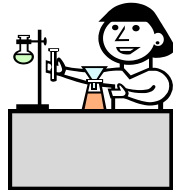
The Baltimore Museum
of Industry
1415 Key Highway
Baltimore, Maryland 21230



The Maryland Science Center
601 Light Street
Baltimore, Maryland 21230



The Franklin Institute Science Museum
222 North 20th Street
Philadelphia, PA 19103



Career Connections

Take a few minutes to discuss, with your child, these different career opportunities for people interested in electricity and magnetism

Electrician

An electrician assists with making sure electrical wiring is done correctly in homes and businesses.

Aerospace Engineers

An aerospace engineer creates electrical systems for aircrafts and spacecrafts.

Amusement Park Engineers

An amusement park engineer assists with the development and creation of electrical and safety systems for amusement park thrill rides.

Prepared by

Office Of Science, Pre K-12

Mr. George A. Newberry, Director

A Parent's Informational Guide to the Science Unit:

ELECTRIFYING SCIENCE



Grade 4



Electrifying Science

Electrifying Science is a fourth grade unit in which students are engaged in hands-on, minds-on activities which relate to electricity and magnetism. The Maryland Voluntary State Curriculum Indicators addressed in the unit are listed below:

5.0 Physics - Students will use scientific skills and processes to explain the interactions of matter and energy and the energy transformations that occur.

C. Electricity and Magnetism

1. Recognize and describe the effects of static electric charges.
2. Investigate and provide evidence that electricity requires a closed loop in order to produce measurable effects.
3. Cite evidence supporting that forces can act on objects without touching them.



Unit Vocabulary

Encourage your children to use the vocabulary listed below when telling you about what they are learning during this science unit.



attract- the invisible force of two objects pulling together.

repel - the invisible force of two objects pushing apart.



compass- a tool with a magnetic needle that points to the north

magnetic field-the space all around a magnet where the force of the magnet has an effect



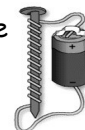
static electricity-the build up of electrical charges on the surface of a material

electric circuit- a complete loop through which electricity can flow



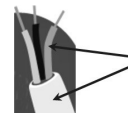
poles- The north and south ends of a magnet where the magnetic field is strongest.

electromagnet- a temporary magnetic force caused when an electric current passes through a wire



conductor-any material through which electricity moves easily

Insulator- any material which slows or stops the flow of electricity



Books to Read

Take some time to read books about electricity and magnetism with your child. Books can be found in the non-fiction section of the library. You can also find books on this topic in the children's section of your school and public library.

Edom, Helen. *Science with Magnets*

Lunis, Natalie. *Discovering Electricity*

Stille, Darlene. *Simple Science, Magnets*

Tocci, Salvatore. *Experiments With Electricity: A True Book*

Woodford, Chris. *Science Activities, Electricity and Magnetism, Vol 1*

Internet Sites



<http://www.creativekidsathome.com/science/magnet.html>

Child friendly directions for magnet investigations

<http://search.enchantedlearning.com/cgi-bin/uncgi/search?key=electricity>

Students can visit this site to find diagrams and explanations about magnetism and electricity. Some parts of this website are not accessible due to fee restrictions.