Current Electricity Lessons

Websites

Electricity Resources

Articles about "Electricity"
This site provides answers to a variety of questions associated with electricity and circuitry.
(http://amasci.com/ele-edu.html)

The Energy Story
An excellent educational web site sponsored by the California Energy Commission that provides comprehensive content information, as well as activities, videos, stories about the use and conservation of energy.
(http://www.energyquest.ca.gov/story/index.html)

Current Electricity

Alessandro Volta
This site provides information about Alessandro Volta, the inventor of the "voltaic pile," the forerunner of today's battery.
(http://www.energyquest.ca.gov/scientists/volta.html)

Thomas Edison

The Great Idea Finder: Thomas Alva Edison
(http://www.ideafinder.com/history/inventors/edison.htm)

Edison's Lightbulb
(http://www.fi.edu/qa98/attic12/attic12.html)

History of Energy: Edison (1847)
(http://www.eia.doe.gov/kids/energy.cfm?page=fp_edison)

These sites provide information about Thomas Edison and his invention of the incandescent light bulb.

Michael Faraday

Faraday Follows in Franklin's Footsteps
This site provides information about Michael Faraday and his discovery of electro-magnetic rotations, which led to the development of the electric motor.
(http://www.fi.edu/franklin/scientst/faraday.html)

Electric Generators and Transformers

Electricity Basics
(http://www.eia.doe.gov/kids/energyfacts/sources/electricity.html)

Fun with Electricity
(http://www.jea.com/community/education/kidscorner/electricalfacts.asp)

Power Plant: From Our Plant to Your Door
(http://www.kcplkids.com/pr_plant.html)

Communications Technology

Kidswork: Telegraph and Telephone
(http://www.knowitall.org/kidswork/etv/history/telegraph/index.html)

The History of the Telephone
(http://inventors.about.com/library/inventors/bltelephone.htm)

Visit these kid-friendly sites for information about the telegraph, telephone, and other uses of electricity in communications.

Electrical Safety

Electrical Safety World: What is Electricity?
This site provides important information on electrical safety, with games and activities for students to engage in.
(http://www.sierrapacific.com/kids_safety/electric/html/kids1.html)

Current Electricity Lessons

Books

Electrician (Career Exploration)
Karen J. Donnelly. (2001, Capstone Press)
This concise book introduces the career of an electrician, discussing educational requirements, duties, work environment, and other aspects of the job.

Electricity (DK Eyewitness Books)
Steve Parker and Laura Buller. (2005, DK Children)
With the photographs and other illustrations that make the Eyewitness Science series stand out, this book provides a comprehensive overview of electricity. It begins with early ideas and discoveries, and includes the many ways electric charges are collected and used.

Electricity (Science Around Us)
Darlene R. Stille. (2004, The Child's World, Incorporated)
This book gives an overview of electricity, including how it was discovered and how batteries are made. It includes a brief biography of Benjamin Franklin.

Electricity (Straightforward Science)
Peter Riley. (1999, Franklin Watts)
This book explains simple circuits, generating electricity, and motors, and their uses in everyday life. It also includes experiments to show how electricity works.

Electricity: A Question and Answer Book
Adele Richardson and Phillip W. Hammer. (2007, Capstone Press)
Written for ages 8 to 12, this book introduces electricity and its generation, components, movement, and function. Its question-and- answer format makes it a useful reference for the Science Center.

Electricity: Bulbs, Batteries, and Sparks (Amazing Science)
Darlene R. Stille; illustrated by Sheree Boyd. (2004, Picture Window Books)
Appropriate for ages 6 to 10, this book describes and illustrates how electricity powers the appliances in a house.

Faraday: Pioneer of Electricity (The Explosion Zone)
Ian Graham; illustrated by David Antram. (2003, Barron's Educational Series)
Michael Faraday discovered the relationship between electricity and magnetism, which led him to develop the first electric motor and electric generator. With cartoon-like illustrations, this book tells the story of Faraday's discoveries. Each two-page spread is supplemented with a sidebar called "Here's the Science."

Flick a Switch: How Electricity Gets to Your Home
Barbara Seuling; illustrated by Nancy Tobin. (2003, Holiday House)
In simplified terms, this book describes electricity and introduces some key inventors, including Benjamin Franklin, Thomas Edison, and Alessandro Volta.

The Magic School Bus and the Electric Field Trip
Joanna Cole; illustrated by Bruce Degan. (1999, Scholastic)
Ms. Frizzle and her class visit an electric power plant, and learn how electricity is generated and how it travels. The book is packed with information that goes beyond the scope of the unit, but it is entertaining and may stimulate students' further interest.

My Light
Molly Bang (2004, Blue Sky Press)
Beautifully illustrated, and narrated by "your sun," this book focuses on four scenarios in which the generation of electricity can be traced back to the sun: a hydroelectric dam, wind turbines, a coal-burning plant, and solar cells.

Nikola Tesla and the Taming of Electricity
Lisa J. Aldrich. (2005, Morgan Reynolds Publishing)
Appropriate for grades 5 and up, this book describes Tesla's discovery of the rotating magnetic field and includes his great inventions, such as early remote controls, radio, and alternating current equipment.

The Story of Thomas Alva Edison
Margaret Cousins. (1981, Random House)
This biography tells the story of inventor Thomas Edison. By the end of his career, Edison had invented the light bulb, motion pictures, and the phonograph, and made improvements in almost every other means of communication used today.

Switch On, Switch Off
Melvin Berger; illustrated by Carolyn Croll. (1990, HarperCollins Children's Books)
Recently reissued, this book explains in simple terms how electricity is produced and transmitted, how generators supply electricity for cities, and how electricity works in homes.

Thomas Alva Edison (Rookie Biographies)
Wil Mara: (2004, Children's Press)
This middle grade biography describes the life of Thomas Edison, the inventor of the light bulb, phonograph, and movies with sound. It includes a "Words You Know" section that highlights terms and concepts from the text, and illustrates them with photos.

Thomas Edison (First Biographies)
Lola M. Schaefer. (2002, Capstone Press)
Appropriate for early elementary students, simple text and photographs highlight major events in the life of Thomas Edison. A timeline feature at the bottom of each spread captures details one at a time, culminating in a complete summary of his life on the final page.

Using Energy (Designs in Science)
Sally Morgan and Adrian Morgan. (1993, Facts on File)
This book describes how energy is extracted from its sources and put to use when it is transformed from one form to another. Electrical circuits are discussed throughout.

Where Does Electricity Come From? (Clever Calvin)
C. Vance Cast. (1992, Barron's Educational Series)
"Hi. I'm Clever Calvin…. We all use electricity every day, but we hardly ever stop to think about what it is or where it comes from." Accompanied by humorous illustrations, Clever Calvin finds out how electricity is generated and brought to our homes.