Electricity and Circuits
Glossary

NGSS Alignment

CORE IDEAS

Core Idea PS1: Matter and Its Interactions

PS1.A: Structure and Properties of Matter

Core Idea PS3: Energy

PS3.A: Definitions of Energy

CROSS CUTTING CONCEPTS

- ☐ Patterns
- ☐ Cause and effect: Mechanism and explanation
- ☐ Scale, proportion, and quantity
- ☐ Systems and system models
- ☑ **Energy and matter: Flows, cycles, and conservation**
- ☐ Structure and function
- ☐ Stability and change

PRACTICES

- ☑ **Asking questions (for science) and defining problems (for engineering)**
- ☐ Developing and using models
- ☑ **Planning and carrying out investigations**
- ☑ **Analyzing and interpreting data**
- ☑ **Using mathematics, information and computer technology, and computational thinking**
- ☑ **Constructing explanations (for science) and designing solutions (for engineering)**
- ☑ **Engaging in argument from evidence**
- ☑ **Obtaining, evaluating, and communicating information**

Vocabulary

Atom	Electromotive force (EMF)	Neutrons
Conductors	Electrons	Power
Current	Insulators	Protons
Electricity	Nucleus	Resistance
		Voltage

Glossary

Atom	the basic unit of a chemical element
Conductors	materials through which electricity flows easily
Current	amount of electricity that is flowing through the wires
Electricity	the movement of electrons from one atom to another
Electromotive force or EMF	the force that moves electrons in a certain direction
Electrons	subatomic particles that move around the nucleus of an atom and carry a negative electrical charge
Insulators	materials through which electricity does not flow easily
Nucleus	the dense, central region of an atom consisting of protons and neutrons
Neutrons	subatomic particles in the nucleus that carry no electrical charge
Power	the amount of energy used per unit of time
Protons	subatomic particles in the nucleus that carry a positive electrical charge
Resistance	A measurement of how much opposition a material has to current flow, measured in Ohms (Ω)
Voltage	a measure of the electric potential, or EMF, that exists between two points, measured in volts