

# Electric

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## Understanding Electricity

- Understand the important effects electric energy has on humans and their environment
- Describe the difference between AC and DC currents
- Explain the difference between conductors and insulators
- Model how electricity flows through a circuit
- Define voltage, resistance and current, then identify the units of measure associated with each

## Safety

- Recognize that electricity can be dangerous if not used properly
- Describe hazards involved when working with electricity

## Magnets

- Understand why magnets and magnetic fields are so important in our study of electricity
- Explain the cause and effect relationship of magnets
- Describe how magnets cause changes in the motion and position of objects, even when the objects are not touching the magnet
- Learn how magnetic fields are used to generate electricity

## Circuits

- Identify and collect basic tooling needed to work on residential electrical circuits
- Examine basic electrical circuits and components
- Label the parts of a simple circuit
- Draw examples of an open circuit and a closed circuit

## Machinery

- Demonstrate safe practices and procedures to prevent personal injury and property damage





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