

**CASSVILLE R-IV SCHOOL DISTRICT  
CURRICULUM IMPLEMENTATION GUIDE**

**EVALUATION PROFILE  
UNIT PLAN OVERVIEW**

**Unit:** 2. Electrical Circuits

**Learner Objectives**

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# 1.

Lesson 1 Thinking about Electricity and Its Properties

Students learn brainstorming techniques.

Students discuss what they know about electricity and what they would like to learn.

Students review important safety rules about using electricity.

Lesson 2 What Electricity Can Do

Students discover how to light a bulb using a simple battery, a piece of wire, and a small bulb.

Students set up a notebook for their observations.

Lesson 3 A Closer look at Circuits

Students review different ways to connect the battery, the wire, and the bulb to get the bulb to light.

Students explore alternative ways to create a circuit.

Lesson 4 What is Inside a Light Bulb?

Students further their understanding of circuits by constructing a circuit to light a household bulb.

Students learn to identify the parts of a bulb and to trace the path of electricity through a bulb.

Lesson 5 Building a Circuit

Students learn how to use a battery holder, a light bulb socket, and their attached Fahnestock clip-devices that will help them build circuits.

Students gain more experience working with circuits.

Lesson 6 What's Wrong with the Circuit?

Students build a circuit tester

Students think about different ways to use their circuit testers

Students learn a troubleshooting technique to check their circuits.

Lesson 7 Conductors and Insulators

Students develop an understanding of the behavior of electrical conductors and insulators

Students learn how to use a circuit tester to identify conductors and insulators.

Lesson 10 Desiphering a Secret Language

Students learn the symbols used in circuit diagrams.

Students practice translating electrical components into symbols.

Students practice using circuit diagrams to construct real circuits.

Lesson 11 Exploring Series and Parallel Circuits

Students build a series and a parallel circuit.

Students learn to identify series and parallel circuits and begin to use this knowledge to describe their own circuits.

Lesson 12 Learning about Switches

Students construct a switch and learn why switches are important.

Students apply what they have learned about series and parallel circuits to devise a plan for a flashlight.

Lesson 13 Constructing a Flashlight

Students construct flashlights.

Students discuss the similarities and differences between series and parallel circuits.

Appendix A Post-Unit Assessments

Students evaluate their own progress.

The teacher evaluates students progress.

Presented to students on (date) \_\_\_\_\_

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