



Learning Outcomes:

- I will demonstrate my ability to work as a member of an electrical engineering project team to develop a working LED flashlight.
- I will demonstrate my understanding of chemical batteries by building a working LED flashlight using citrus and compatible metals.

Review of Prior Knowledge:

- Grading guidelines

Introduction to New Material: (I Do)

- N/A

Guided Practice: (We Do)

- Review project expectations and outcomes

Independent Practice: (You Do)

- Electrical Engineering Project - Present flashlights

Standards/Expectations:

1: The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:

1b: show the ability to cooperate, contribute, and collaborate as a member of a group in an effort to achieve a positive collective outcome

2: The student investigates the components of engineering and technology systems. The student is expected to:

2b: identify the inputs, processes, and outputs associated with technological systems

2c: describe the difference between open and closed systems

2d: describe how technological systems interact to achieve common goals

4: The student uses appropriate tools and demonstrates safe work habits. The student is expected to:

4g: demonstrate the use of precision measuring instruments

6: The student thinks critically and applies fundamental principles of system modeling and design to multiple design projects. The student is expected to:

6c: use problem-solving techniques to develop technological solutions

6d: use consistent units for all measurements and computations

8: The student understands the opportunities and careers in fields related to electrical and mechanical systems. The student is expected to:

8a: describe the applications of electrical and mechanical systems

8b: describe career opportunities in electrical and mechanical systems

8c: identify emerging trends in electrical and mechanical systems

8d: describe and apply basic electronic theory