

GRADES 9-12:

Career Field: Standard Engineering and Science Technologies

65:3: Describe postsecondary education and career opportunities in the field of Construction Management.

PROCEDURE:

In discussion before viewing the *Electrical Engineering* video, the teacher may consider engaging students in discussion on any of the following topics:

- Electrical Engineering is a field of engineering focused on the development, design, manufacture, and installation of electrical systems, components, and equipment.
- Electrical Engineers are degreed professionals.
- Electrical Engineers rely heavily on skills from the STEM content areas – Science, Technology, Engineering, and Math.
- Electrical Engineers rely heavily on creative thinking skills in order to conceptualize electrical systems.
- The field of Electrical Engineering is highly diverse and Electrical Engineering applications can be utilized in a number of industries.

In discussion after viewing *Electrical Engineering*, the teacher may have a follow-up discussion on the same topics discussed before viewing the video.

BEFORE VIEWING:

Distribute the Agree-Disagree chart and the Pre and Post-viewing guide on the following page to provide focused viewing for students while watching the *STEM Career Lab* video, *Electrical Engineering*.

Have each student complete the “Before Viewing” column on the Agree-Disagree Chart and the “What I Already Know” column of the Guided Viewing Worksheet. Let students know it's okay if they do not know all the answers.

WHILE VIEWING:

Play the *Electrical Engineering* video and instruct students to now fill out the “What I learned” Column. Students will make notes about their impressions of needed skills in science, technology, engineering and math and how they need to prepare to go into a career in Electrical Engineering.

AFTER VIEWING:

Have students complete the “After Viewing” column on the Agree-Disagree Chart. Discuss the changes in their answers, then use the Guided Viewing worksheet to facilitate a post viewing discussion with students.

DIRECTIONS:

Mark whether you agree or disagree with each statement in the left column before viewing the video. After viewing the video, identify whether you agree or disagree with each statement in the right column. Discuss each statement as a group.

<i>Before Viewing</i>	<i>Statement</i>	<i>After Viewing</i>
Agree Disagree	The Electrical Engineering field is only for students who excel in the STEM subjects.	Agree Disagree
Agree Disagree	Electrical Engineering has many applications across a number of different domains.	Agree Disagree
Agree Disagree	Electrical Engineers are at the center of designing new and-cutting edge technologies.	Agree Disagree

	<i>What I Already Know</i>	<i>What I Learned</i>
1. What is Electrical Engineering?		
2. Why is Electrical Engineering important?		
3. Electrical Engineers should have a strong background in what STEM subjects?		
4. What are some examples of Electrical Engineering projects or applications?		
5. What are some of the educational opportunities for Electrical Engineering?		
6. Why would you like to work in the field of Electrical Engineering?		
7. How would you enter the field of Electrical Engineering?		
8. In what fields or domains can Electrical Engineers work?		