

Career Girls: Engineering Careers

Lesson Topic:

Engineering Careers

Lesson Objective:

To help students explore reasons to consider a career in engineering.

Warm-up Activity:

1. Provide each student a copy of the **List of Role Model Engineering Careers** represented in the video.
2. Have students circle the engineering careers they are familiar with and research the rest. Have students note any new information they learned about any of the careers listed.
3. After completing their research, have students work together and/or with you to put into their own words what each engineer does when on the job as well as why she thinks her type of engineering is a good one for girls to consider pursuing.
4. Use this opportunity to clarify or clear up any misconceptions regarding the career labels and benefits.

View the Video: "Engineering Careers"

1. Preview the video before sharing it with your students.
2. Tell students they will be watching the video titled, "Engineering Careers."
3. Explain that the video presents role models talking about why engineering is a career choice girls should consider.
4. Point out that each of the role models in the video works as one of the types of engineers included in the list you shared earlier. Tell students that the name of the career each role model represents will appear on the screen as she is speaking.

5. Tell students that, as they view the video, they should listen for reasons the engineers believe that girls should consider engineering as a career.
6. View the video together.
7. View the video again; this time, invite students to formulate questions or comments about the different types of engineering discussed in the video and to be prepared to discuss these after viewing the video.
8. Have students tell about the types of engineering careers they think they might enjoy learning more about and why.

Video Follow-up:

1. Ask students to discuss or write about their video-related questions, comments, reactions and responses.
2. Invite students to note specific things they learned about the different engineering careers featured in the video and to reflect upon their observations. (E.g., "I liked when the Executive Engineer from General Motors said that the crash dummy test site let her know that engineers do important work keeping people safe.")
3. Encourage students to edit any written work so it can be shared with classmates.
4. Use student writings as a springboard to further discussion.

Extension Activity:

Invite students to visit the Career Girls website to learn about other types of engineering careers not included in the video and to list some possible benefits of working in each one.

Related Questions to Explore:

Use the list of questions below to help students learn more about engineering careers and why they should consider a career in engineering.

- Why might some people think that engineering is a boring or isolating career not suitable for women? According to the information presented in the video, are those things true?
- What are “crash dummies?” How do engineers use crash dummies to help families stay safe?
- Why is math often an important part of a career in engineering? Are there careers in engineering that don’t depend on strong math skills?
- Is it possible for a career in engineering to include interests in other areas, such as computers and psychology? How do you know?
- What are some ways the role models in the video may have prepared for their careers in engineering? How do you know?
- Besides exploring the Career Girls website, what are some other ways you can learn more about career possibilities as an engineer?

List of Role Model Engineering Careers Featured in the Video:

Engineering Director

Mechanical Engineer

Executive Engineer

Software Engineer

Mars Rover Systems Engineer

Cognitive Engineer

Environmental Engineer