

When Will I Ever Use Math and Science in My Life?

Exploring Engineering

Objective

Students will learn about ways engineers use math and science to solve problems. They will be introduced to products of engineering as well as careers that will use math and science on a daily basis.

Learning Outcomes

Students will learn:

- About careers in engineering
- About Products of engineering
- How to identify engineering in the world around them
- How to make a difference as an engineer

Essential Questions

- What is engineering?
- When will I ever use math and science in my life after high school?
- Why is math important?
- What does an engineer do?
- How do I become an engineer?

Time Required

- Introduction (20 minutes)
- Activity (60 minutes)
- Career Speaker (45 minutes)

Assessments

- Worksheet found with the Exploring Engineering Box (Available through the College of Engineering)

Materials

- Power Point Presentation
- Engineer
- Exploring Engineering Box

Lesson Description

Ask students when they think they will use engineering in their lives. Use the Power Point presentation for a description of the different types of engineering available in Utah.

After the introduction to engineering, have the students break into 7 groups (one station for each type of engineering). Follow the instructions listed in the Exploring Engineering Box for placement of objects. Provide a worksheet for each student for observations, etc. of the objects. Have the groups rotate between stations to learn about each of the different kinds of engineer.

Additional Enrichment

1. Invite an Engineer to your classroom to talk about what they do as an engineer what they have invented, etc. Have your class take notes on what they present. Speakers can be arranged through Jeff Bates (801-581-8737 or jeff.bates@utah.edu).
2. Have students work in groups of 3 or 4 to create an advertisement for one specific area of engineering. This advertisement should explain what their chosen area of engineering is responsible for and include products (ex. Civil: Bridges, Traffic Lights, Dams, Water, Environment, Roads, etc.)