

LESSON 1: Comparing Science and Engineering

The prominent inclusion of engineering concepts in science courses because of STEM (science, engineering, technology, math) presents a new challenge for many students. This activity explores how science and engineering practices are used in these two fields and how they support and enhance one another. Students will work in groups to compare and contrast these practices. Each group will create a poster and share key points in a brief presentation.

Learning Goals: Students will

- compare and contrast Science and Engineering; scientists and engineers and the work that they do.
- discover how science and engineering are similar and different.

Approximate time: 50 minutes

Materials

- Lap top computers
- Large easel paper/chart paper
- Scratch paper
- Markers

Part 1: Instructions

1. Research on scientists and engineers – their work and attributes.
2. Share your findings with your group mates.
3. Create and present a poster that summarizes how similar and/or different the practice is in science and engineering.

Part 2: Poster Presentations

1. Each group will present their poster, “elevator speech” style. 60 – 90 second time limit for each speech.

Part 3: Activity questions (Individually, copy and answer on a piece of paper).

- How are science and engineering similar and different?
- Which practices are the most clearly different in science and engineering?
- How might the differences and similarities across the two disciplines show up in classroom activities?

Part 4: Reflection (OER)

Do you want to be a scientist or an engineer? Or both? And why?