Why Choose STEM: Classroom Lesson Plan

Lesson Topic:

Exploring STEM Careers

Lesson Objective:

Students will be able to list careers in science, technology, engineering, and math (STEM) and describe reasons to consider a career in STEM.

Materials:

- Chart paper
- Writing utensils
- Books, magazines, and/or internet enabled devices
- Projector or other method to watch the movie

Advanced Preparation:

- Preview the video before sharing it with your students [1:24].
- Gather books, magazines, and/or internet enabled devices.

Warm-up Activity:

1. Ask students to tell what they know about the acronym "STEM."
2. Divide a piece of chart paper into four equal columns. Title the paper STEM Careers. Label the four columns left to right as follows: Science, Technology, Engineering, Math.

3. For each column, have students list careers that fall under that column's heading.
4. Have each student select 4–5 of the careers from the chart to research using books, magazines, and/or the internet. Ensure they have selected a mix of science, technology, engineering, and math careers.
5. Each student is responsible for briefly presenting information on at least one of the careers they researched. Each student should describe the career and tell why it is a desirable career choice.

View the Video: "Why Choose STEM"

1. Tell students they will be watching the video titled, "Why Choose STEM".
2. Explain that the video presents role models talking about why STEM careers are ones that girls should consider going into.
3. Tell students that as they view the video, they should listen for reasons the role models believe girls should consider STEM careers. Then, view the video together.
4. View the video again; this time, invite students to formulate questions or comments about the ideas discussed in the video and to be prepared to discuss these after viewing the video.

Video Follow-up:

1. Ask students to offer their questions, comments, reactions and responses to the video.
2. Invite students to note specific things they learned about the value of STEM careers and to reflect on their observations (e.g., "I like that a STEM career means I can have an interesting profession that pays well.").

3. Refer students back to the STEM Careers chart. Working as a group, add any new careers that students can think of as well as those mentioned in the video.
4. Have students tell about the types of STEM careers they think they might enjoy learning more about and why.

Extension Activities:

Use the "Related Questions to Explore" as discussion springboards or writing prompts to help students further explore STEM careers.

Related Questions to Explore:

- Why are there fewer women than men in STEM careers? How is it possible to change that trend? Why is it important to change that trend?
- What basic skills are important to develop in preparation for any of the STEM careers?
- Why is math often an important part of a STEM career? Are there STEM careers that don't depend on strong math skills?
- Why do STEM careers pay well? Is a good salary enough of a reason to pursue a STEM career?
- Besides exploring the Career Girls website, what are some other ways you can learn more about STEM career possibilities you might enjoy?

Ideas for Future Lessons/Activities Related to STEM Careers:

1. What Do Women with STEM Careers Do? Exploring Career Paths in STEM

2. Practice Having a STEM Career: Solving Real-Life STEM Problems

3. STEM in the News: What Is Going on in the Field of STEM?

4. STEM Products and Processes Are All Around Us: Listing STEM Products and Processes We Use on a Daily Basis

5. Literature-Based Learning: Exploring Biographies, Autobiographies, and Memoirs of Famous Women STEM Pioneers

6. Developing a Confidence-building Mindset: Practice with Language and Actions to Inspire Self-Confidence in Our STEM Skillset

7. Conducting and Recording Interviews with Real-Life Female Role Models in STEM Careers