Women in STEM Biography

Objective:

Research and present on prominent women in STEM to learn about their contributions and inspire interest in STEM fields.

Materials

- List of notable women in STEM (provide a selection for students to choose from)
- Research materials (books, articles, online resources)
- Presentation software (e.g., PowerPoint, Google Slides)
- Projector or computer for presentations
- Evaluation rubric (for assessing presentations)

Duration: 2-3 class periods, depending on the number of students and presentations

Instructions

Introduction (15 minutes)

Begin by discussing the importance of women in STEM and their significant contributions to science, technology, engineering, and mathematics.

Explain the objectives of the activity: to research and present on a woman in STEM, highlighting her achievements and impact.

Research and Preparation (60 minutes)

Assign each student or group a specific woman to research.

Instruct students to gather information about their chosen figure, including her background, education, major achievements, and the challenges she faced.

Have students create a presentation using a chosen software (e.g., PowerPoint, Google Slides). Provide guidelines for structuring their presentations.

Encourage students to use a variety of research materials, such as books, articles, and online resources.

Presentation Preparation (30 minutes)

Instruct students to create engaging visuals for their presentations, including images, graphics, and possibly short video clips.

Encourage them to organize their content logically, with a clear introduction, main points, and a conclusion.

Remind students to cite their sources properly.

Presentation Day (1-2 class periods, depending on the number of presentations)

Have each student or group present their biography of a woman in STEM to the class. Allow time for questions and discussion after each presentation.

Encourage students to use engaging presentation techniques, such as storytelling, visuals, and enthusiasm.

Debrief and Discussion (15 minutes)

- After all presentations are complete, facilitate a discussion on common themes and lessons learned from the women's stories.
- Discuss the impact of gender diversity in STEM and the importance of recognizing and celebrating the achievements of women in these fields.

Conclusion (10 minutes)

- Conclude the activity by emphasizing the importance of diverse perspectives and encouraging students to consider pursuing STEM fields in their future studies and careers.

- Provide feedback on presentations and assess students based on their research, presentation skills, and ability to convey the woman in STEM's contributions effectively.

Assessment and evaluation

Use an evaluation rubric to assess presentations, considering content, organization, visuals, and presentation skills.

Encourage peer evaluations to foster constructive feedback and discussion among students.

This "Women in STEM Biography Presentations" lesson plan allows high school students to learn about and appreciate the contributions of women in STEM through research, presentations, and discussions. It also provides an opportunity for students to develop research, presentation, and critical thinking skills.