Activity: Spellbound Episode 4 Mamie Moy Video Questions

FOR THE TEACHER

Summary
In this activity, students will answer questions while watching a video from the Spellbound series produced by ACS. Each episode focuses on a different notable scientist, recounting how their interest in science was sparked in their childhood and how they went on to make great contributions to the scientific community. This fourth episode focuses on the childhood of Mamie Moy, who was one of few women in her time to study chemistry and get a master’s degree. She has been a devoted professor for decades, is involved in outreach, supports K-12 science educators, and mentors young women pursuing science careers.

Grade Level
Middle School, High School

Objectives
By the end of this activity, students should be able to:
- Explain how childhood experiences can contribute to an individual’s scientific development.
- Reflect on their own interests and role models.

Chemistry Topics
This activity supports students’ understanding of:
- History of chemistry

Time
Teacher Preparation: minimal
Lesson: 10-20 minutes

Materials
- Spellbound Episode 4 Video
- Student Handout
- Computer and projector with volume

Safety
- No specific safety precautions need to be observed for this activity.

Teacher Notes
- The Spellbound series of videos is about the childhood experiences that inspired important scientists to become scientists. They can help students understand that anyone at any age, anywhere in the world can be inspired by science. These videos would be appropriate at any point in the year and, as they are publically available, could easily be used as part of an emergency sub plan.
- The running time of this video is about five minutes. As it is a short video and it moves pretty quickly, you may want to show it twice to ensure students can complete all the questions.
- The student questions/answers are presented in sequential order in the video.
- An answer key has also been provided for teacher reference.
- The last three questions ask for students to reflect on the content of the video as it applies to their life. It could be interesting to have students share answers with a partner or with the class after they have had a few minutes to answer those questions.
FOR THE STUDENT
Lesson

_Spellbound_ Episode 4 Mamie Moy: Video Questions

**Instructions**
While watching the video, answer the following questions:

1. What did the international year of chemistry in 2011 celebrate?
2. Where did Mamie live as a child?
3. What was the common mentality regarding education for women when Mamie was growing up?
4. What did Mamie’s teacher encourage her students to do, and how did she enable them to do it?
5. Where did Mamie go to graduate school?
6. How long has Mamie been teaching college chemistry?
7. What educational center did Mamie found?
8. What does Mamie say about solving problems?

After you watch the video, reflect on the following questions:

9. Mamie’s teacher encouraged her students to be expressive and creative with open-ended questions and projects. What is your favorite creative project that you have done (in school, in a summer program, writings/art/music that you’ve created on your own, etc.)?

10. Mamie emphasized the ability of science to solve problems. If you could choose one global problem to solve now with chemistry, what would it be and why?

11. If you had the opportunity to ask Mamie one question (about anything – her work, her life, etc.), what would it be?