Activity: Marie Curie Video Questions

FOR THE TEACHER

Summary
In this activity, students will watch a short video and learn about Marie Curie, her Nobel Prizes, radiation experiments, and discovery of new elements.

Grade Level
Middle, and High School

Objectives
By the end of this activity, students should be able to
- Understand Marie Curie’s important work and discoveries in chemistry.
- Appreciate a basic understanding of radiation.

Chemistry Topics
This lesson supports students’ understanding of
- Nuclear Chemistry
- Radioactive isotopes
- Radiation
- Half-lives
- Atomic Structure
- Subatomic Particles
- Model of the Atom
- Atomic Theory
- History of Chemistry

Time
Teacher Preparation: minimal
Lesson: 10 minutes

Materials
- Marie Curie Video
- Student Handout
- Projector with Volume
- AACT Student Video Pass (optional)

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

Teacher Notes
- The Marie Curie video was developed as a part of the AACT original video series, Founders of Chemistry. The entire series can be found here.
- The running time of this video is five minutes.
- This video is intended for students to watch, and for teachers to integrate into their curriculum.
- The student questions/answers are presented in sequential order in the video.
- An answer key has also been provided for teacher reference.
- Videos can be shown with the use of a classroom projector, or teachers can generate a Student Video Pass through their AACT membership to allow students to independently access the video.
FOR THE STUDENT
Lesson

Instructions
While watching the Founders of Chemistry Video about Marie Curie, answer the following questions:

1. What “deal” did Marie make with her sister Bronya?
2. What degrees and in what subjects did Marie get when she graduated? How many years did it take her?
3. What subject did Marie decide to pursue for her doctoral studies?
4. What invention of Pierre’s did she use?
5. What term did Marie Curie coin?
6. How did Marie determine that there must be undiscovered elements that caused radiation?
7. What two elements did Marie and Pierre discover?
8. In what year did Marie receive her two Nobel prizes? And in what fields?
9. How many soldiers were treated using Marie’s mobile x-ray labs during WWI?
10. What caused Marie Curie’s health to decline?