CHEMISTRY MATTERS
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NOTE-TAKING GUIDE: Unit 11, SEGMENT A

Name:

Date:

Main Ideas, Key Points, Questions:

After watching the video segment, write down key points, main ideas and big questions.

Objective(s):

- *To investigate nuclear chemistry using tools for counting and visualizing subatomic particles.*
- *To identify subatomic particles and their properties.*
- *To use models to explain the structure and properties of isotopes.*

Notes:

During the video segment, use words, phrases or drawings to take notes.

Summary:

After watching the video segment, write at least three sentences explaining what you learned.
You can ask yourself: "If I was going to explain this to someone else, what would I say?"

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QUESTIONS TO CONSIDER:
Unit 11, SEGMENT A

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After watching the video and performing any associated labs and/or experiments, you should be able to answer the following:

1. **What is nuclear chemistry?**

2. **How did Henri Becquerel discover radioactivity?**

3. **What instrument can be used to measure the number of radioactive decay particles?**

At this point in the video, you are expected to use cloud chambers to visualize and count nuclear particles. Also, you may sketch a cloud chamber you have used or assembled.

4. **Describe the vapor trails made as decay particles move through the vapor in a cloud chamber.**

5. **You already know the properties of protons, neutrons and electrons. Describe what you know about these three subatomic particles.**

6. **Which subatomic particle determines stability in the nucleus? How?**

7. **Define isotope.**

8. **Describe atomic fission.**