

**Main Ideas, Key Points,
Questions:**

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

Objective(s):

- *To draw Bohr models to predict atomic behavior.*
- *To predict periodic trends in elements based on physical properties such as effective nuclear charge, ionization energy, electronegativity and atomic radius.*

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?"

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

- 1. Video segment 3D explores periodic trends in physical properties. You will draw Bohr models. Write the two main rules to follow when drawing Bohr models.**

Video segment 3D asks you to WRITE on a periodic table of the elements, so make sure you have a periodic table before continuing this video. You can find a copy in our Chemistry Matters Toolkit section.

- 2. Draw a Bohr model of lithium and sodium.**

- 3. Why is lithium in period 2 but sodium is in period 3?**

- 4. What is effective nuclear charge?**

- 5. How does distance from the nucleus affect effective nuclear charge?**

- 6. Name the energy needed to remove a valence electron from an atom.**

- 7. Name the ability of an atom to attract electrons.**

- 8. Name the distance of an atom's nucleus to its outermost energy level.**

- 9. Label your periodic table indicating trends in ionization energy, electronegativity and atomic radius.**