

Test Outline: Topic 2.3 (Science 9)

OVERVIEW:

- Bohr models
- Subatomic particles (protons, neutrons, electrons)
- Ions
- Periodic trends

FORMAT OF TEST

- Some multiple choice
- Some short answer
- Will be provided with a periodic table and allowed use of a calculator if needed

LEARNING MAP CRITERIA:

Relevance	Extending	Proficient	Developing	Emerging
<input checked="" type="checkbox"/>	<p>Independently and accurately draw the Bohr model for atoms and ions.</p> <p>Explain the logic behind calculations of protons, neutrons, and electrons in an atom.</p> <p>Use Bohr models to determine the number of each ion required in an ionic compound. Use drawings to help explain the logic of how that ionic compound has formed (electron transfer; full valence shells).</p>	<p>Draw the Bohr model of an atom and show how it forms its associated ion.</p> <p>Describe trends in reactivity, size, valence electrons, and number of occupied energy shells in the periodic table. Use trends in size and valence electron configuration to justify differences in reactivity of different elements.</p>	<p>Calculate the number of protons, neutrons, and electrons for an atom.</p> <p>Draw the Bohr model of an atom.</p> <p>Define valence shell and describe its role in stability and ion formation.</p> <p>Define and recognize cations and anions. Explain how cations and anions are formed (i.e. do they gain or lose electrons?).</p>	<p>Recognize that protons and neutrons are in the nucleus, and electrons are in energy shells around the nucleus.</p>

VOCABULARY:

(Disclaimer: This is not meant to be an exhaustive list. Vocabulary words may appear on the test that are not in this list.)

- Atom
- Noble gas, alkali metal, alkaline earth metal, halogen
- Metal, non-metal
- Subatomic particle
 - Proton
 - Neutron
 - Electron
- Nucleus
- Energy shell
- Atomic number
- Atomic mass
- Ion charge
- Element
- Valence shell
- Valence electron
- Bohr model
- Ion
 - Cation
 - Anion
- Periodic trend
- Atomic size
- Reactivity
- Period
- Group

PRIMARY STUDY MATERIAL:

- In-class notes and worksheets
- Textbook section 2.3
- Periodic Trends lab
- Workbook pgs 69-80; pg 81 to an extent