

Chemistry Lesson Plan

Topic	Structure and Properties of Matter
Lesson Title	Electron Configuration
Lesson Number	1-6e
Next Generation Science Standards:	<p>HS-PS1-1. Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.</p> <p>HS-PS1-2. Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.</p>
Learning objectives:	<ul style="list-style-type: none"> • Use shorthand orbital notation • Write orbital notation for ions • Identify exceptions to general orbital notation
“I can” statement:	<p>I can:</p> <ul style="list-style-type: none"> • use the shorthand notation for elements • give orbital notation for ions • describe the exceptions in the notations for chromium and copper.
Prior Knowledge:	
<ul style="list-style-type: none"> • Pauli Exclusion Principle, Aufbau Principle, Hund’s Rule • S,p,d,f orbital notation 	
Vocabulary:	
Atomic number, electron configuration, energy level, valence electron, Aufbau Principle, Pauli Exclusion Principle, s-orbital, p-orbital, d-orbital, f-orbital, Hund’s Rule, Electron orbital diagram, orbital notation, shorthand notation, ion	
Summary of Activities:	
<ol style="list-style-type: none"> 1. Distribute and complete bell ringer activity. 2. Discuss guided notes and slideshow, with students. 3. Complete the Vocabulary worksheet and/or doodle notes activity, 4. Exit quiz 	
Additional Resources:	
YouTube clips on:	
<ul style="list-style-type: none"> • Assigning electrons to sub-shells • Electron orbitals 	
Homework:	
Homework task	
Assessment:	
<ul style="list-style-type: none"> • Bell work • Exit quiz • End of unit review 	

