



## Westside High School Lesson Plan Template

Teacher Name	Mr. Jie	Unit Name	Atomic Chemistry
Course	Prep Chemistry	Dates	Sept19 – Sept 23

<b>Monday</b>	<ul style="list-style-type: none"><li>• <b>Daily Objective:</b> <b>IWBAT explain</b> that one unified <b>atomic mass unit</b> (amu), or 1 u, is exactly 1/12 the mass of a carbon-12 atom. <b>IWBAT explain</b> that <b>isotopes</b> are atoms of the same element that have different masses. <b>IWBAT explain</b> that <b>average atomic mass</b> is the weighted average of the atomic masses of the naturally occurring isotopes of an element.</li></ul> <p><b>Agenda with Approximate Time Limits:</b></p> <ul style="list-style-type: none"><li>• Do Now [ 5min]</li><li>• Direct Instruction [20 min]</li><li>• Guided Practice [15 min]</li><li>• Exit Ticket [5min]</li></ul> <p><b>Formative Assessment:</b> Exit ticket</p> <p><b>Intervention:</b> Tutorials and student personal accommodations</p> <p><b>Follow-Up/Homework:</b> Finish classwork</p>
<b>Tuesday</b>	<ul style="list-style-type: none"><li>• <b>Daily Objective:</b> <b>IWBAT explain</b> that the <b>mass number</b> is the total number of protons and neutrons that make up the nucleus of an isotope. <b>IWBAT determine</b> its number of protons, neutrons, and electrons, given the identity of a nuclide.</li></ul> <p><b>Agenda with Approximate Time Limits:</b></p> <ul style="list-style-type: none"><li>• Do Now [5min]</li><li>• Ions Direct Instruction [20 min]</li><li>• Guided Practice [15 min]</li><li>• Exit Ticket [5min]</li></ul> <p><b>Formative Assessment:</b> Cold call, Group work; Exit ticket</p> <p><b>Intervention:</b> Tutorials and student personal accommodations</p> <p><b>Follow-Up/Homework:</b> Finish classwork</p>



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<b>Wednesday/Thursday</b>	<p><b>Daily Objective:</b> <b>IWBAT</b> identify and calculate the number of protons, neutrons, electrons in an atom, ion, or isotope given sufficient information. <b>IWBAT</b> calculate average atomic masses of isotopes using percentage abundances.</p> <p><b>Agenda with Approximate Time Limits:</b> Do Now. [10 minutes] Independent Practice [70 minutes] Exit Ticket [10 minutes]</p> <p><b>Formative Assessment:</b></p> <p><b>Intervention:</b> Available tutorials, group work, and Special Ed and 504 accommodations.</p> <p><b>Extension:</b> Gizmo_Average Atomic Mass</p> <p><b>Follow-Up/Homework:</b> Gizmo_Average Atomic Mass</p>
<b>Friday</b>	<p><b>Daily Objective:</b> <b>IWBAT</b> identify and calculate the number of protons, neutrons, electrons in an atom, ion, or isotope given sufficient information. <b>IWBAT</b> calculate average atomic masses of isotopes using percentage abundances.</p> <p><b>Agenda with Approximate Time Limits:</b> Review [15 minutes] Practice [30 minutes]</p> <p><b>Formative Assessment:</b> classwork</p> <p><b>Intervention:</b> available tutorials, Special Ed and 504 accommodations.</p> <p><b>Extension:</b></p> <p><b>Follow-Up/Homework:</b> Gizmo</p>



## Westside High School Lesson Plan Template

Teacher Name	Mr. Jie	Unit Name	Periodic Table
Course	Prep Chemistry	Dates	Sept 26 – Sept 30

<b>Monday</b>	<p><b>Daily Objective:</b> Students will show the ability to identify and calculate the number of protons, neutrons, electrons in an atom, ion, or isotope given sufficient information. Students will show the ability to calculate average atomic masses of isotopes using percentage abundances.</p> <p><b>Agenda with Approximate Time Limits:</b> Unit test: Atomic Chemistry</p> <p><b>Formative assessment:</b> N/A</p> <p><b>Intervention:</b> Test Correction, Retakes are available</p> <p><b>Follow-Up/Homework:</b> N/A</p>
<b>Tuesday</b>	<p><b>Daily Objective:</b> IWBAT explain that chemical properties of the elements are used to organize elements in the Periodic Table. IWBAT explain that atomic numbers are used to organize elements in the Periodic Table.</p> <p><b>Agenda with Approximate Time Limits:</b></p> <ul style="list-style-type: none"><li>• Do Now [5 minutes]</li><li>• The invention of periodic table and Mendeleev's dream. [35 minutes]</li><li>• Exit Ticket [5 minutes]</li></ul> <p><b>Formative Assessment:</b> Cold Call Exit ticket</p> <p><b>Intervention:</b> Tutorials and student personal accommodations.</p> <p><b>Extension:</b> N/A</p> <p><b>Follow-Up/Homework:</b> N/A</p>



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<b>Wednesday/Thursday</b>	<p><b>Daily Objective:</b> I CAN identify and explain properties of chemical families.</p> <p>I CAN identify and explain alkali metals, alkaline earth metals, halogens, noble gases and transition metals.</p> <p><b>IWBAT</b> explain that metals are located on the left side of the periodic table and are ductile, malleable and good conductors. They include:</p> <p>Alkali metals (group 1), Alkaline metals (group 2) and Transition Metals.</p> <p><b>IWBAT</b> explain that nonmetals are found on the right side of the periodic table and are brittle, dull and poor conductors. They include Halogens (group 17) and chalcogen (group 16).</p> <p><b>Agenda with Approximate Time Limits:</b></p> <ul style="list-style-type: none"><li>• Do Now [5 min]</li><li>• Video or lab [40 min]</li><li>• Direct instruction and Guided Practice [40 min]</li><li>• Exit Ticket [5 min]</li></ul> <p><b>Formative Assessment:</b> Proving questioning. Exit ticket</p> <p><b>Intervention:</b> Tutorials and student personal accommodations.</p> <p><b>Extension</b> Vocabulary Practice</p> <p><b>Follow-Up/Homework:</b> Finish Classwork</p>
<b>Friday</b>	<p><b>Daily Objective:</b> I CAN express the arrangement of electrons in atoms. I CAN express the arrangement of electrons using electron configurations.</p> <p><b>IWBAT</b> explain that Aufbau principle states that in the ground state of an atom or ion, electrons fill atomic orbitals of the lowest available energy levels before occupying higher levels.</p> <p><b>IWBAT</b> explain that it is impossible for two electrons of a poly-electron atom to have the same values of the four quantum numbers: <math>n</math>, the principal quantum number, <math>\ell</math>, the azimuthal quantum number, <math>m\ell</math>, the magnetic quantum number, and <math>m_s</math>, the spin quantum number. This called Pauli Exclusion principle.</p> <p><b>IWBAT</b> explain that if two or more orbitals of equal energy are available, electrons will occupy them singly before filling them in pairs. This is called Hund's Rule.</p>



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	<p><b>Agenda with Approximate Time Limits:</b></p> <ul style="list-style-type: none"><li>• Do Now [5 min]</li><li>• Direct Instruction [20 min]</li><li>• Guided Practice [15 min]</li><li>• Exit Ticket [5 min]</li></ul> <p><b>Formative Assessment:</b> Cold call, observation</p> <p><b>Intervention:</b> Tutorials and student personal accommodations.</p> <p><b>Extension:</b> Matter unit Oline Game</p> <p><b>Follow-Up/Homework:</b> Finish classwork</p>
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