

Detailed Lesson Plan: Science (Module J Unit 1 Lesson 3: Molecules & Extended Structures)

<p>Objective: Students will explore how molecules and extended structures are composed of atoms. Students will analyze how the chemical and physical properties of molecules and extended structures depend on the atoms that they are composed of.</p>	<p>Standards:                  → MS.PS1.1 Develop and use models to describe the atomic composition of simple molecules and extended structures.</p>
<p>Establishing a culture for learning:                  *Essential Questions: How do scientists model molecules and extended structures? What is the difference between a molecule and a compound? How do the types of atoms in a molecule/ extended structure contribute to the substances properties?</p> <p>*Student interest: Students have been learning about the periodic table and just completed a project about a specific element. They seemed interested in individual elements, so I think they will be interested in how they combine together to form different substances.</p> <p>*Key Vocabulary: pure substance, molecule, chemical bond, compound, crystal</p> <p>*Level of learning: Understanding; Application</p>	<p>Monitoring student learning:                  *Whole/ small group strategy: Review what students have already learned about elements.</p> <p>*Partner or individual strategy: Students will have the opportunity to work with a partner or by themselves to complete the required reading and notes for the lesson. Students will also work in small groups to complete a variety of activities to enhance and summarize what they learned in their reading (science workshop).</p> <p>*Extra support needed: While students are reading the required text, I will give students the choice to read with me and complete their notes. I will also work with a small group during science workshop time to teach them some of the more difficult content and review what they've read and learned in other science workshop stations.</p> <p>*Does this pertain to SLO? If so, what data are you collecting? This lesson does not pertain to my SLO.</p>
<p>Materials: leveled notes; station materials: vocabulary; study guide; element or compound worksheet; atoms, molecules, elements, &amp; compounds worksheet; Bohr Model recording sheet; density review worksheet; laptops; science notebooks</p>	<p>Reflection: Was the purpose met? The purpose of this lesson was met. Students began to determine the difference between molecules and compounds. They also began to understand how scientists model molecules and how these models can show us that substances will have different properties depending on the atoms that make up the substance.</p>
<p>Lesson: Begin the lesson by discussing the bellringer question. After discussing the bellringer question, have students get out their orange workbooks and opening to page 40. Star/ mark the paragraphs that students will read and take notes over. After, set a timer for students to complete their first read through where they skim and scan the text looking for words that they aren't sure about. Then, discuss the words together as a class making a list to display while they read. Set a timer and allow students time to read independently, with a partner, or with me and take their notes. After the timer goes off, students should get out their science notebooks and open to page 117- review the definition of a compound and discuss how to tell how many elements are in a compound. Display the science workshop expectations- what science workshop should look and sound like. Display the science workshop groups and allow students time to work on the stations. Students will review vocabulary words, complete their study guide, complete a notebook page (Element or Compound?), meet with me to practice the difference between molecules and compounds, review Bohr models as a way to model elements, and review how to find the density of objects. Students will rotate every 10-12 minutes depending on need. Students will complete as many stations as they can and finish the others tomorrow. Before students leave, have them find a classmate and discuss the difference between a molecule and a compound. As they're discussing, walk around and check for understanding. Use this as a starting point (bellringer) tomorrow.</p>	
<p>Assessment/ Product: bellringer; reading/ notes; notebook page 117; science workshop stations; use of worktime; exit ticket</p>	