

Grade 9

Distance Learning Module 1: Week of: 3/30-4/3

**Content Area: Conceptual Chemistry - Modified from [Unit #1 - Nature of Matter](#)**

**Targeted Goals from Stage 1: Desired Results**

**Content Knowledge:**

1. An atom is the smallest unit of an element that retains the chemical properties of that element and can exist as a separate particle.
2. A group of atoms that are covalently bonded together are called a molecule.
3. Ionic bonding is a type of chemical bonding that is the result of the transfer of electrons from one atom to another, typically between metal and nonmetal atoms.
4. Covalent bonding is a type of chemical bonding in which one or more pairs of valence electrons are shared between the atoms.

**Vocabulary:**

metals, nonmetals, alkali metals, alkaline earth metals, transition metals, halogens, noble gases, molecules, bonds, ionic bonds, covalent bonds, polar/nonpolar bonds, electron transfer, electron sharing, energy, anion, cation,

**Skills:**

Students will understand the structure of the periodic table and use this information to determine the types of molecules that are formed based on the atomic species involved. Next, students will be able to predict the bohr models of atoms based on their atomic numbers. Then, students will be able to draw the lewis structures of various compounds.

**Expectation:**

<b>Description of Task (s):</b>	<b>Resources and Materials:</b>	<b>Daily Checks (Return to Google Classroom or snapshots from a cell phone)</b>
Monday: Students will take a survey of the periodic table. This will include looking at the different groups of the periodic table, and distinguishing between metals and nonmetals. Students will watch an edpuzzle crashcourse video, then students will complete an associated worksheet to check their progress.	Introduction to the periodic table: <a href="#">(EDPuzzle Resource posted in Google Classroom)</a>  Element Symbols: <a href="#">(EDPuzzle Resource posted in Google Classroom)</a>  Periodic Table: <a href="#">Resource posted in Google Drive</a>	Associated Day One Worksheet: <a href="#">Resource posted in Google Classroom</a>
Tuesday: Students will focus on electrons and learn how to draw Bohr Diagram models. Students will be able to describe how electrons relate to protons, and will be able to draw the bohr diagrams for the elements in the first three energy levels (besides 3d).  <b>Online Q&amp;A/ Office Hours: 9:25 a.m.-10 a.m.</b>	<a href="#">EdPuzzle Resource posted in Google Classroom</a>	Associated Day Two Worksheet: <a href="#">Resource posted in Google Classroom</a>
Wednesday: Students will learn what molecular bonding is. Through this, students will learn the differences between nonpolar covalent, polar covalent, and ionic compounds. Students will watch an edpuzzle crash course video, then students will complete an associated worksheet to check their progress.	<a href="#">EdPuzzle Resource posted in Google Classroom</a>  What can bond with what? <a href="#">Resource posted in Google Drive</a>	Associated Day Three Worksheet:  <a href="#">Resource posted in Google Classroom</a>
Thursday: Students will watch a video describing lewis drawings and lewis structures. Students will	<a href="#">YouTube video posted</a>	Associated Day 4 Worksheet: <a href="#">Resources posted in Google Classroom</a>

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<p>be able to use the skills learned in the video to predict the lewis structures for various examples. Students will complete an associated worksheet to check their understanding.</p> <p><b>Online Q&amp;A/ Office Hours: 9:25 a.m.-10 a.m.</b></p>		
<p>Friday: Review from the week Check answer keys for worksheets, retry if needed Office hours 9:25 a.m. to 10:00 a.m. Google Form quiz of the week's topics</p>		

**Week criteria for success** (attach student checklists or rubrics):

- watched all of the recorded videos and taken notes
- completed all google forms and checked for accuracy. Each incorrect answer on the google form will provide feedback as to why the correct answer is preferred. Students will incorporate this feedback into future attempts.
- Students will complete an end of the week assessment that checks on content understanding for the topics of the week.
- incorporated feedback, submitted second attempt, if needed on google classroom

**Supportive resources and tutorials for the week** (plans for re-teaching):

- online virtual Q and A help sessions (see Google Classroom for times and invite codes)