Grade 9
Distance Learning Module 6: Week of: May 11th – May 15th

Conceptual Chemistry - *Modified from Unit #2 - Water & Solutions*

Targeted Goals from Stage 1: Desired Results

Content Knowledge:

1. Polar molecules, such as water, are molecules that have a negatively charged end and a positively charged end due to the electronegativity differences between the atoms and/or the asymmetry of its structure.
2. Electrolyte solutions are solutions that contain ions and can conduct electricity.
3. The polar nature of water accounts for its ability to dissolve many ionic and molecular substances.
4. Solutions are homogeneous mixtures in which the physical properties are dependent on concentration and type of solute.

Vocabulary:
solution, mixture, homogenous, heterogeneous, polar, nonpolar, electrolyte, dissolve, solubility, solute, solvent, electronegativity, bond dipole, ionization

Skills:

1. Explain the relationship between the structure of water and its unique properties.
2. Use words, pictures and chemical equations to describe the process of dissolving substances in water.

Expectation:

Description of Task (s):	Resources and Materials: (links posted in Google classroom)	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: Students will start by learning to distinguish between different type of mixtures. In particular, students will focus on learning the difference between homogenous mixtures and heterogeneous mixtures. After, students	**Solution/Mixture Basic Introduction:** EdPuzzle - Solutions and Mixtures **Homogenous Vs. Heterogeneous:** Edpuzzle - Homogeneous and Heterogeneous Mixtures Examples **Structure of a water molecule:**	**Worksheet:** (document posted in Google classroom)

Description of Task (s):	Resources and Materials: (links posted in Google classroom)	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
will explore the structure of the water molecule and its different properties. After watching edpuzzle videos related to these, students will complete a worksheet.	Edpuzzle- WATER **Worksheet Key:** (document posted in Google classroom)	
Tuesday: Students will explore what electronegativity is and how it affects polarity in molecules. Students will use this information to explain why different molecules are polar and why others are not. This will incorporate the use of lewis structures learned in the previous unit. **Online Q&A/ Office Hours: 9:25 a.m.-10 a.m.**	**Electronegativity:** Edpuzzle: Polar vs. Nonpolar **Polarity vs Nonpolarity:** EdPuzzle **Electronegativity Table:** (document posted in Google classroom) **Worksheet Key:** (document posted in Google classroom)	**Worksheet:** (document posted in Google classroom)
Wednesday: Students will complete a phet simulation that allows them to manipulate various variables within a molecule. Students will be able to see how atomic electronegativities, bond angles, and molecular shapes impact the dipole moments in molecules, along with the overall polarity of the entire molecule.	**Phet Simulation on Polarity:** (link posted in Google classroom) **Review Questions Key:** (document posted in Google classroom)	**Worksheet:** (document posted in Google classroom)
Thursday: Students will begin looking at what makes a solution. This will include exploring what a solvent is, what a solute is, and what types of solute tend to dissolve in different types of solvents. Then, students will explore water and try to explain why it is the universal solvent. **Online Q&A/ Office Hours: 9:25 a.m.-10 a.m.**	**Water and Solutions:** Edpuzzle **Worksheet Key:** (document posted in Google classroom)	**Worksheet** (document posted in Google classroom)
Friday:		

Description of Task (s):	Resources and Materials: (links posted in Google classroom)	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
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		

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)