

Grade 10/11/12

Distance Learning Module 10: Week of: June 8<sup>th</sup> - June 12<sup>th</sup>

Intermolecular Forces of Attraction

## Honors Chemistry - Modified from [Unit 7 - Chemical Bonding, Molecular Geometry, & Intermolecular Forces of Attraction](#)

### Targeted Goals from Stage 1:

**Content Knowledge:** Ionic solids have high melting points, are brittle, and conduct electricity when molten or in solution. Metallic bonding describes an array of positively charged cations surrounded by a sea of mobile electrons forming a crystal lattice. Metallic solids are good conductors of heat and electricity, have a wide range of melting points, and are shiny, malleable, and ductile. There are four types of crystal lattice structures: ionic, molecular, covalent (network solids), and metallic. Intermolecular forces play a role in determining the properties of substances, including biological structures and interactions. The amount of energy absorbed or released during a phase change depends on the strength of the intermolecular forces and the amount of the substance present. The hydrogen bonding between water molecules explains the many unique properties of water.

### Vocabulary:

**Skills:** Interpret phase diagrams. Relate physical properties of liquids to the strengths of the intermolecular forces of attraction. Calculate the heat transfer associated with a heating curve that includes phase changes and temperature changes.

### Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone at end of the week)
Monday: <i>Students can set their own pacing, but make sure to meet the weekly expectations shown below:</i> <ul style="list-style-type: none"><li>● Watch Edpuzzle Video on Demo_Solubility &amp; IMF</li><li>● Watch Edpuzzle Video on the Lava Lamp</li><li>● Watch Edpuzzle Video on Evaporation &amp; Intermolecular</li></ul>	Edpuzzle: Mod 10_Video 1_Demo_Solubility & IMF Edpuzzle: Mod 10_Video 2_Demonstration: Intermolecular Forces in a Lava Lamp Edpuzzle: Mod 10_Video 3_Evaporation and Intermolecular Attractions Edpuzzle: Mod 10_Video 4_Surface tension Edpuzzle: Mod 10_OPTIONAL_How do geckos	<input type="checkbox"/> answer embedded multiple choice while watching edpuzzle videos - grade will automatically transfer to Classroom gradebook from Edpuzzle when video is watched all the way to the end & show results button is checked  <input type="checkbox"/> picture of or electronically submitted

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone at end of the week)
Attractions <ul style="list-style-type: none"> <li>• Watch Edpuzzle Video on Surface Tension</li> <li>• <b>OPTIONAL:</b> Watch Edpuzzle Video on the Geko</li> <li>• Complete Understanding Phenomenon_IMF Reflection</li> </ul>	defy gravity? - Eleanor Nelsen Understanding Phenomenon_IMF Reflection	completed Understanding Phenomenon_IMF Reflection
Tuesday: <ul style="list-style-type: none"> <li>• Watch Edpuzzle Video Phase Changes &amp; Phase diagrams</li> <li>• Watch Edpuzzle Video on Explaining the Triple Point</li> <li>• Watch Edpuzzle video on Density of Water</li> <li>• Complete AACT States of Matter and Phase Changes Simulation &amp; embedded Interactive Quiz - Take a screenshot of quiz results</li> </ul>	Edpuzzle: Mod 10_Video 5_Heating/Cooling Curve & Phase Diagrams Edpuzzle: Mod 10_Video 6_Explaining the Triple Point  Edpuzzle: Mod 10_Video 7_Why does ice float in water? - George Zaidan and Charles Morton Classroom Resources   States of Matter and Phase Changes	<input type="checkbox"/> view & answer embedded multiple choice while watching edpuzzle videos - grade will automatically transfer to Classroom gradebook from Edpuzzle when video is watched all the way to the end & show results button is checked  <input type="checkbox"/> picture of screen shot showing showing quiz results from AACT Classroom Resources States of Matter & Phase Changes embedded quiz
Wednesday: <ul style="list-style-type: none"> <li>• complete Phase Diagram Worksheet as a review of all new information</li> </ul>	Phase Diagram Worksheet	<input type="checkbox"/> picture of or electronically submitted completed Phase Diagram Worksheet
Thursday: <ul style="list-style-type: none"> <li>• Repeat Review of Unit 7 (Ch. 11) PowerPoint Slide Show &amp; Ch. 11 Summary to reinforce any concepts for the week &amp; to supplement Edpuzzle videos</li> <li>• Rewatch any previous Edpuzzle Videos if needed</li> <li>• Complete DL_Practice Assessment_Unit 7</li> </ul>	DL_Unit 7_Intermolecular_Forces  Chapter 11 Summary  DL_Practice Assessment_Unit 7 (Sections 11.1-11.9)	<input type="checkbox"/> picture of or electronically submitted completed DL_Practice Assessment_Unit 7

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone at end of the week)
Friday: <ul style="list-style-type: none"> <li>Complete Google Form Distance Learning Content Check</li> </ul>	Google Form to be Posted Friday Morning	<input type="checkbox"/> completed Distance Learning Google Form

**Week criteria for success** (attach student checklists or rubrics): By the end of this week, students should have:

- ☐ watched Edpuzzle videos and responded to embedded video questions where appropriate
- ☐ Review of Unit 7 Chapter 11 PowerPoint Slide Show & Ch. 11 Summary to supplement videos (No Notes Submission needed this week)
- ☐ completed Understanding Phenomenon\_IMF Reflection
- ☐ completed AACT Classroom Resources States of Matter & Phase Changes embedded quiz & submitted picture of screen shot showing quiz results
- ☐ completed Phase Diagram Worksheet
- ☐ completed DL\_Practice Assessment\_Unit 7
- ☐ completed Google Form Distance Learning Content Check

**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)
- read and re-read the textbook
- watch and rewatch Edpuzzle videos
- practice worksheets and corresponding answer keys in Google Classroom