

## Krug Chemistry – Deep Run Daily Planning Guide

Date of Lesson: Q2 Day 13 – Intermolecular Forces (IMFs) and Polarity

<b>Topic /Big Questions:</b> ( <a href="#">Question Stems</a> & <a href="#">Question Creation Chart</a> )	
<ul style="list-style-type: none"> <li>• What type of forces hold molecules together as solids, liquids, or gases?</li> <li>• How do these forces influence the type of chemical bond?</li> <li>• How does polarity affect intermolecular forces?</li> </ul>	
<a href="#">State SOL</a>  CH 6	<b>Unpacking the Standards</b> ( <a href="#">Video explanation shown at 3:18</a> )  CH.6 The student will investigate and understand that the phases of matter are explained by the Kinetic Molecular Theory. Key ideas include <ul style="list-style-type: none"> <li>a) pressure and temperature define the phase of a substance;</li> <li>b) properties of ideal gases are described by gas laws; and</li> <li>c) <b>intermolecular forces affect physical properties.</b></li> </ul>
<b>Visible Learning (For the three items with asterisks*, think from a student perspective. Use simple language)</b>	
<b>*What am I learning today?</b> Compounds and molecules are held together by intermolecular forces. The type of force depends on the level of polarity. The movement of atoms and the relationship of energy and the phases is outlined in the Kinetic Molecular Theory.	
<b>*Why is it important?</b> The Kinetic Molecular Theory explains the behavior of matter.	
<b>*How will I know I've learned it?</b> I will identify and understand the requirements for classifying each type of intermolecular force.	
<b><a href="#">Differentiation strategies:</a></b>  PhET Molecular Polarity Simulation  PhET Molecular Polarity Worksheet  Electronegativity Chart and Electronegativity Differences Worksheet  Intermolecular Forces & Polarity presentation	
<b>Accommodations and/or modifications are being met for students with IEP's/504's.</b>  Small group activities; frequent checks for understanding; materials available on Schoology	

**Daily Plan/Sequence of Instruction:**

Students will work together to complete the **PhET Molecular Polarity Simulation** and fill in the corresponding **worksheet**. Teacher will offer assistance as needed and lead group discussion after simulation is complete. Teacher will remind students of periodic trends and ask what they remember about electronegativity. If needed, the teacher will remind students that the difference in electronegativity determines a bond's polarity. Student will work together in small groups. They will use the **Electronegativity Chart** to predict the bond polarity of elements listed on the **Electronegativity Differences Worksheet**. Teacher will use the **Intermolecular Forces and Polarity PowerPoint** to explain how to classify each of the forces and how the forces affect physical properties. Students will fill in the notes on the first part of the worksheet and use the notes to answer the inquiry questions on the second half of the worksheet.

**Assessments (List all [formative](#)/[summative](#) assessments used to check for understanding during this lesson. Summative assessments may occur during a different class period.):**

PhET Molecular Polarity – (formative)

Electronegativity – (formative)

Intermolecular Forces and Polarity - practice problems (summative)

After assessing today's lesson are you and your students comfortable moving forward with your next objective?

**Yes** – students participated in PhET simulation, Electronegativity differences, and scored 80% or higher on the IMF practice problems

**No**, remediation required to proceed – if students do not participate and earn a failing score on the IMF practice problems, teacher will contact their parents and offer assistance during One Lunch; students may make up work for 50% credit.