

Gizmos #2 – Sticky Molecules

Remember – the more/stronger your IMFs, the higher your properties get!

1. Log into Gizmos www.explorellearning.com
2. Go through the experiments in this order:
 - a. Polarity
 - b. Drop Diameter
 - c. Tilt Angle
 - d. Surface Tension
 - e. Capillary Rise
3. You will need to drag a liquid dropper bottle and a tool into the center and perform some kind of action with them (grabbing the dropper bottle and putting some liquid into the dish for example).
4. Record your findings in the chart on Gizmos AND on your paper.
5. BE CAREFUL and get GOOD DATA!

Property	Water	Hexane	Glycerin	Mineral Oil
Polarity (P or NP)				
Drop Diameter (mm)				
Tilt Angle (°)				
Force to break surface tension (mN)				
Capillary rise (mm)				

***Question:** Rank the substances from lowest to highest IMFs (as always, these things are a huge generalization!)

_____ < _____ < _____ < _____
Lowest IMFs *Highest IMFs*

***Question:** Summarize what this activity demonstrates about the polarity of molecules and their properties. Go through and highlight key words or ideas to make them “pop” off the page. You should make sure you reference the following things

- | | | |
|---|---|---|
| <input type="checkbox"/> Polar vs. nonpolar | <input type="checkbox"/> The five different properties that were tested in the gizmo activity | <input type="checkbox"/> General description of what you noticed during the activity. |
| <input type="checkbox"/> The types of IMFs | <input type="checkbox"/> The four different substances that were tested | <input type="checkbox"/> Your final conclusion about the ranking of IMFs in the substances. |
| <input type="checkbox"/> How properties change with increasing IMFs and WHY | | |