

**DIRECTIONS:**

- 1) Perform each task described below.
- 2) Follow the directions carefully!
- 3) Follow the clean-up instructions!
- 4) Start working on your Post-Lab Questions

**TASK #1**Boiling Point

- 1) On the LEFT half of the hot plate drop one drop of Water, one drop of Oil and one drop of Alcohol on the tinfoil. PUT THEM AS FAR AWAY FROM EACH OTHER AS YOU CAN!  
**PAUSE AND GO TO TASK #2 !**
- 2) Turn the hot plate on high and start your stop watch or timer.
- 3) Time how long it takes each droplet on the LEFT to boil off. Watch to see which compound on the RIGHT melts first.
- 4) Record data for the left side of hot plate below.  
Record data for the right side of hot plate in the box under Task #2
- 5) TURN OFF THE HOT PLATE!

Water	Isopropyl Alcohol	Vegetable Oil
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**TASK #4**Polarity

- 1) Blow up a balloon if one is not already blown up.
- 2) Make sure the three burettes are filled and that they each have a beaker underneath them.
- 3) Rub the balloon all over your hair to cause the balloon to get static electricity all over it.
- 4) Laugh at how funny your hair looks now. Haha!
- 5) Turn on one of the burettes on slightly and hold the balloon near the stream of liquid.
- 6) See how the stream of liquid reacts as the balloon gets closer. Watch what happens when the balloon gets further away. (*Make sure not to get the balloon too close – don't get it wet!*)
- 7) Repeat with the remaining two burettes.
- 8) Record observations in the box below

Water
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**TASK #2**Melting Point

- 1) On the RIGHT side of the hot plate place one small scoop of Paraffin wax and one small scoop of NaCl – *small scoop means half the size of a penny!*  
**GO TO BACK TO TASK #1!**

Which compound melted first?

Isopropyl Alcohol
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Vegetable Oil
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**TASK #3**Surface Tension

- 1) Predict how many drops of each liquid you will be able to put on a penny.

Water	Isopropyl Alcohol	Vegetable Oil
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- 2) Using a pipette, drop each of the liquids onto a penny. Make sure to count how many drops it actually took!
- 3) Record your data below.

Water	Isopropyl Alcohol	Vegetable Oil
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**TASK #5**Viscosity

- 1) Using someone's phone watch the video regarding viscosity. Enjoy the amazingness that is this video. Best. Video. Ever.  
<http://tinyurl.com/ViscosityRace>  
**SKIP FROM MINUTE 2:10-3:45.**  
*Seriously...even I skipped it – haha!*
- 2) Record your "data" from watching the video in the box below.

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**CLEAN-UP:**

- 1) AFTER the hot plate has cooled down, carefully remove tinfoil and discard in trash can.
- 2) Recover the hot plate with new tinfoil
- 3) Refill any solutions that are empty or running low. This includes inside the Burettes!
- 4) Dry off any item or surface that has gotten wet.
- 5) Get your "clean up stamp" from Mrs. Farmer