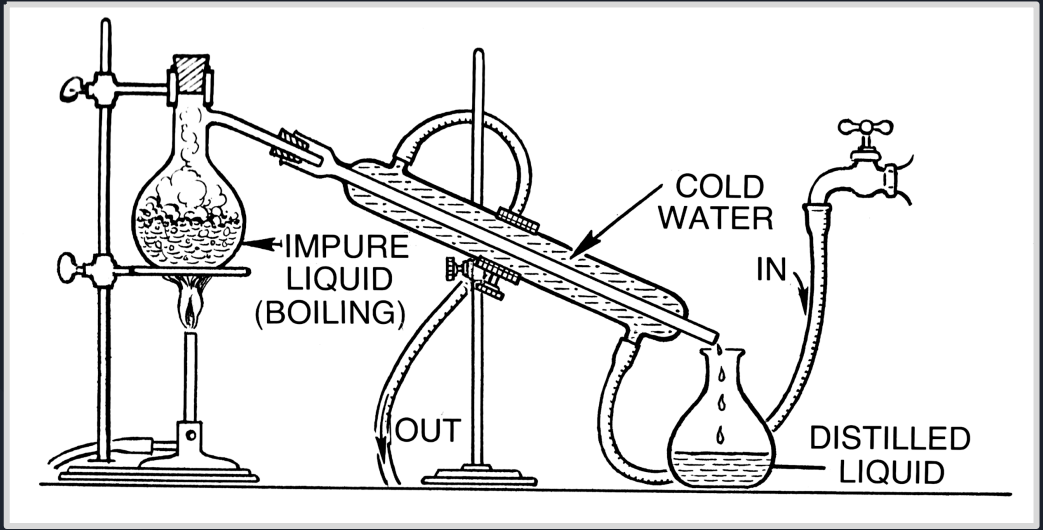
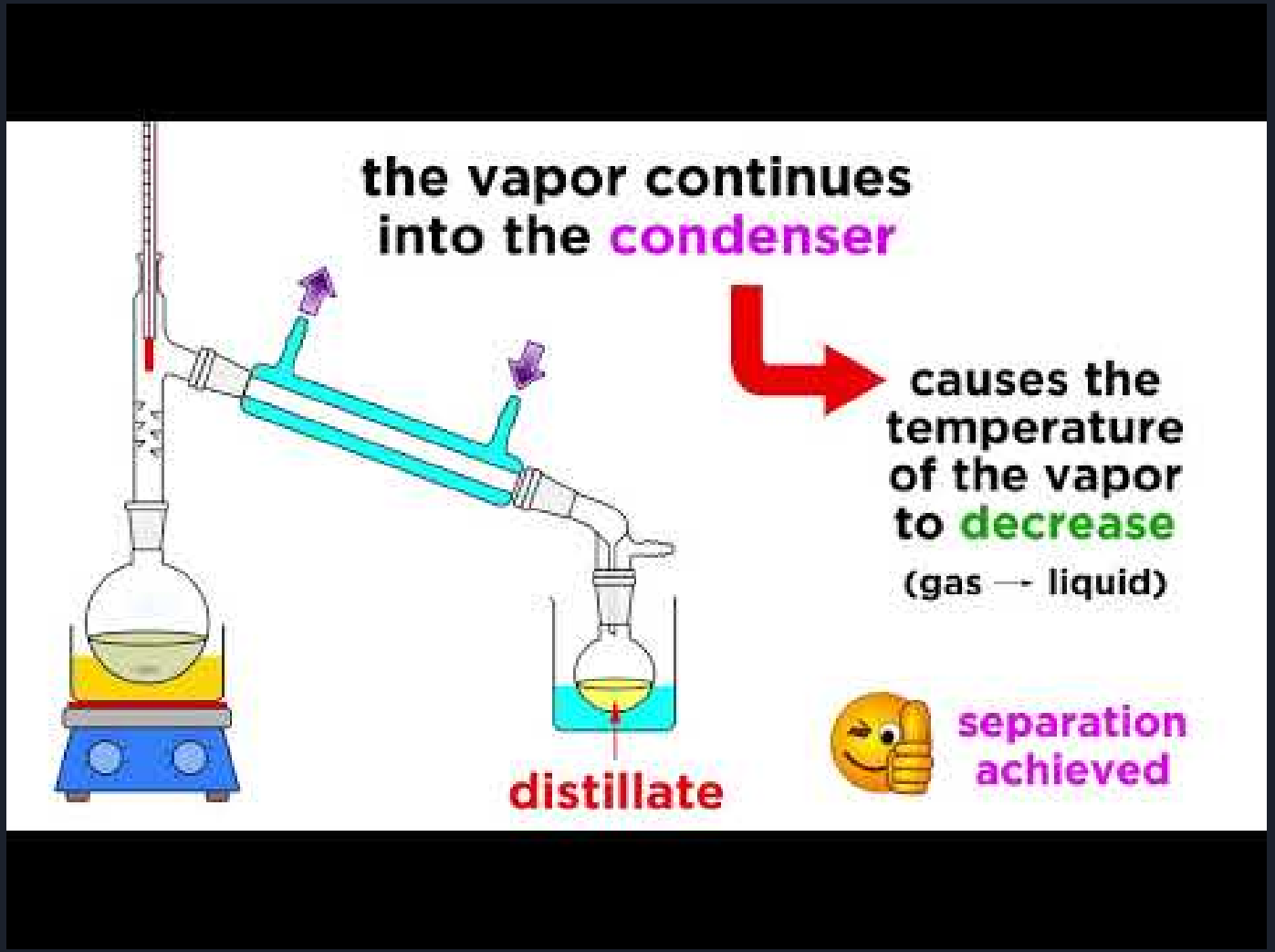
Organic Chemistry: Virtual Distillation Lab



Read the information, complete activities and follow the links on the slides to complete the virtual experiment.

Here is a little refresher video and as a side note, my jaw dropped when I saw Prof. Dave's hair!!!! WHHAAAATTT



Part 1: Know your facts! Record the data into the table.

Note: You may need to pause the video multiple times bc it goes quick!

#	Name	BP Range (°C)
1		
2		
3		
4		
5		

What 3 properties do ALL of these solutions share? Type here

Part 2: Predict the data - prep your column.

Note: You may need to pause the video multiple times bc it goes quick!

1. **What are the 3 Steps?**
   a. Type here
   b. Type here
   c. Type here

2. **What substance does he use to make our distillation into a “fractional” distillation?**
   b. Type here

Part 3: Set it up!

Note: You may need to pause the video multiple times bc it goes quick!

What are the important glassware pieces used?

1. Type here
2. Type here
3. Type here
4. Type here
5. Type here
    a. Type here
    b. Type here
6. Type here

Part 4: Mistakes to Avoid & Pro-tips

Note: You may need to pause the video multiple times bc it goes quick!

Mistakes to Avoid:

1. Type here
2. Type here
3. Type here

Add more if needed

“Pro-tips”:

1. Type here
2. Type here
3. Type here

Add more if needed

Part 5: It's Show-Time!

Note: You may need to pause the video multiple times bc it goes quick!

1. **How many mL of the starting unknown?** Type here
2. **What else does he add to the RB flask?** Type here
3. **When did he remove the heat?** Type here
4. **How many separate TT of distillate did he collect?** Type here
5. **Why did he "save" TT #1 and #10?** Type here
6. **What data is he going to use for identification of the samples?** Type here

Part 6: IR Spectroscopy

IR = infrared, this is an instrument we use that makes the molecules bend/stretch in response to different energies (frequencies) of light. There is an entire region of study called spectroscopy that involves many different instruments/types of spectroscopy. In IR Spec, the energies basically register common “chunks” of molecules in characteristic ways. We will learn in chapter 5 that these are called functional groups. It is kind of crazy they use little disks of SALT!

Optional Extension: If you are still interested in IR Spectroscopy - check out this extra video.

*****Don't forget to fill out your exit slip!*****

Also, Prof. Dave's hair is "back to normal" in this video :)