

### Distillation of Water

Today we will be looking at the process of distilling water. In industry there are specialized machines that will distill and store water without any work needed, however we do not have any special equipment. Instead, we are going to look at the fundamentals involved

- We need to boil water
- We need to catch the steam
- We need to condense the steam
- We need to collect the water once condensed

Be sure you pay close attention, there will be a question sheet that will need to be answered next class.

**Equipment:**

• Hot Plate	• Glass Slides
• Flask	• Salt
• Rubber Stopper	• Water
• Rubber Tubing	• Droppers
• 2 Beakers	• Tongs

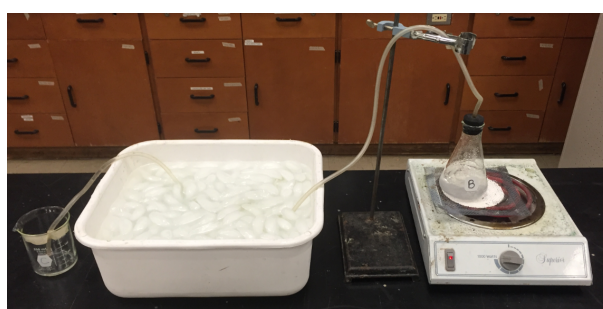
Labels in diagram: glass tubing, rubber stopper, flask, salt solution, hot plate, rubber or plastic tubing, beaker

# Distillation of Water

*Directions:*

Whole Class

1. Measure 150 ml of water into a beaker.
2. Add 15 ml of salt to the water
3. Stir the salt water mixture until it is in solution.
4. Pour two thirds of the salt water solution into the flask.
5. Use the equipment to distil the salt water solution.
6. Stop the process when approximately half of the water has been removed from the flask.



# Distillation of Water

Groups of 3

7. Using a marker, divide a slide into 3 sections, labelling them "A", "B", and "C".
  - » Write your labels backwards on the underside of the slide.
8. Write your name on the back of the slide.
9. Using a dropper, place identically sized drops of the following samples into the 3 sections of the slide
  - A. Salt water solution from the original beaker
  - B. Salt water solution remaining in the flask
  - C. Water that has been distilled from the salt water solution
10. Place your slide in the drawer, to be used next class.

