

Name:

Date:

TA:

Comparing Ionic and Covalent Compounds

Lab Procedure

Note: Please be environmentally friendly and only use the amounts suggested.

Part A: Appearance

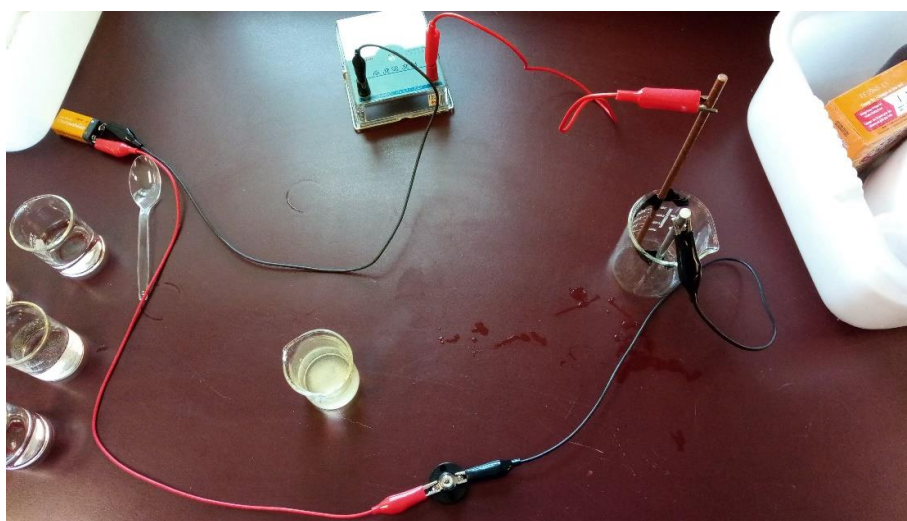
- 1) Observe each substance and describe defining features. This can include texture, colour, size, how hard the substance is, shape/structure, crystal or chunks, smell (using proper lab safety) or other noteworthy features.

Part B: Solubility

- 1) Obtain 6 beakers and label them something that corresponds to each substance. You can use a piece of paper beneath the beakers to write down labels for each beaker.
- 2) Fill each beaker with about 60 ml of water.
- 3) Use a spoon to add 3 scoops of each powdery substance to their corresponding beaker. The substances for this lab are: **Sodium Chloride, Calcium Chloride, Paraffin (wax), Olive Oil, and 2 Unknowns**. For the pieces of wax, add 2 small chunks. For unknown 2, use 2-4 pieces.
- 4) Mix it in with a stir stick/scoopula. Wash off the stir stick/ scoopula between stirs to prevent the contamination of your other beakers!
- 5) Record whether or not each substance fully dissolved in water (did it become one with water, or did it remain its own thing?). **DO NOT DISCARD THE BEAKERS, THEY ARE USED IN PART C!!!!**

Part C: Conductivity

Use this picture and the instructions on the back to wire the following circuit:



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Part C: Conductivity - Continued

- 1) From the kit, attach one wire from one side of the battery to one side of the lightbulb.
- 2) Attach a wire from one side of the lightbulb to an electrode on the large beaker (thin metal cylinder).
- 3) Attach a wire from the other end of the battery to the ammeter.
- 4) Attach a wire from the other end of the ammeter to the other beaker electrode.
- 5) Pour your first substance from part B into the large beaker.
- 6) Observe and record if the light bulb lights up and what the ammeter reads.
- 7) Disconnect the wires from the beaker and pour the substance down the sink. Rinse the beaker out and add the next substance to the next beaker. Repeat this for all beakers.