

# PHYSICAL/CHEMICAL PROPERTIES & CHANGES ACTIVITY

NAME: \_\_\_\_\_ PD: \_\_\_\_\_ DATE: \_\_\_\_\_

Follow the procedures at the stations and record observations for each step. Decide which observations (if any) indicate that a physical change occurred and which (if any) indicate that a chemical change occurred. Note: some procedures are complex enough to involve more than one change.

Observations	Interpretation
<p style="text-align: center;"><b>(Station #1): Candle</b></p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>	<p style="text-align: center;"><u>Indicator(s) of Physical Change</u></p> <hr style="border: 0.5px solid black;"/> <p style="text-align: center;"><u>Indicator(s) of Chemical Change</u></p>
<p style="text-align: center;"><b>(Station #2): Starch + Iodine</b></p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>	<p style="text-align: center;"><u>Indicator(s) of Physical Change</u></p> <hr style="border: 0.5px solid black;"/> <p style="text-align: center;"><u>Indicator(s) of Chemical Change</u></p>
<p style="text-align: center;"><b>(Station #3): NaHCO<sub>3</sub> + Acetic Acid</b></p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>	<p style="text-align: center;"><u>Indicator(s) of Physical Change</u></p> <hr style="border: 0.5px solid black;"/> <p style="text-align: center;"><u>Indicator(s) of Chemical Change</u></p>
<p style="text-align: center;"><b>(Station #4): CoCl<sub>2</sub> + AgNO<sub>3</sub></b></p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>	<p style="text-align: center;"><u>Indicator(s) of Physical Change</u></p> <hr style="border: 0.5px solid black;"/> <p style="text-align: center;"><u>Indicator(s) of Chemical Change</u></p>
<p style="text-align: center;"><b>(Station #5): CuCl<sub>2</sub> + Al</b></p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>	<p style="text-align: center;"><u>Indicator(s) of Physical Change</u></p> <hr style="border: 0.5px solid black;"/> <p style="text-align: center;"><u>Indicator(s) of Chemical Change</u></p>

(Station #6): 100 mL Water

- Volume of water in a volumetric flask is 100.0 mL.
- Same volume of water in a graduated cylinder reads \_\_\_\_\_ mL. (Record to correct # of sig figs)
- Same volume of water in a beaker reads \_\_\_\_\_ mL. (Record to correct # of sig figs)

(Station #7): Density of Unknown Solid

Observation of substance:

Grad Cylinder w/ water = \_\_\_\_\_ mL

Grad Cylinder w/water + solid = \_\_\_\_\_ mL

Mass of unknown solid = \_\_\_\_\_ g

Volume of solid = \_\_\_\_\_ mL

**Show ALL Work & Units:**

Density of unknown solid is \_\_\_\_\_ g/mL

Identity of unknown solid is most likely \_\_\_\_\_

(Station #8): Density of Unknown Liquid

Observation of substance:

Mass of Empty Cylinder = \_\_\_\_\_ g

Mass of Cylinder + liquid = \_\_\_\_\_ g

Volume of liquid in cylinder = \_\_\_\_\_ mL

Mass of liquid in cylinder = \_\_\_\_\_ g

**Show ALL Work & Units:**

Density of unknown liquid is \_\_\_\_\_ g/mL

Identity of unknown liquid is most likely \_\_\_\_\_