

Name _____ Date _____ Hour _____

LaunchLAB

How do you know when a chemical change has occurred?

An indicator is a chemical that is added to the substances in a chemical reaction to show when change occurs.

Materials	Ammonia	Indicator Solution	Pipettes
	Water	Stir Rod	Effervescence Tablet
	Thermometer		

Procedure [Eye Safety, Clothing Protection, Irritant, Toxic, Handwashing]

1. Put on your safety goggles; familiarize yourself with the materials at your table.
2. Measure 20.0 mL of **distilled water** in a **25-mL graduated cylinder**, and pour it into a **100-mL beaker**. Using a **pipette**, add five drops of **0.1M ammonia** to the water.
WARNING: Ammonia vapors are extremely irritating.
3. Stir 15 drops of **universal indicator** into the solution with a **stirring rod**. Observe the solution's color. Measure its temperature with a **thermometer**.
4. Drop an effervescent tablet into a solution. Observe what happens. Record your observations, including any temperature change.
5. Let the beaker sit for approximately 5 minutes. Record any additional observations on color and temperature.
6. Empty your reaction beaker (100mL) into the sink, rinse it with water. Throw away any trash, push in your chairs.

Observations

