

**Exothermic vs. Endothermic**

**MINILAB**

**What happens during an exothermic change compared to an endothermic change ?**

**Data and Observations**

Substances	Observations
sodium hydroxide and water	
Ammonium nitrate and water	

**Materials**

- four small test tubes
- tape
- graduated cylinder
- room temperature water
- sodium hydroxide and ammonium nitrate from teacher

**Procedure**

1. Carefully measure and add 5 ml of room temperature water to each of two test tubes.
2. Get a pellet of sodium hydroxide and place in a third test tube.
3. Get a small amount of ammonium nitrate and place in a fourth test tube.
4. Tear off a small piece of tape to use to cover the end of the test tubes.
5. Pour the water from one of the test tubes containing water, into the test tube with the sodium hydroxide. Quickly cover the test tube with tape and swirl test tube to dissolve the solid.
6. Pour the water from one of the test tubes containing water, into the test tube with the ammonium nitrate. Quickly cover the test tube with tape and swirl test tube to dissolve the solid.

**Analysis**

**1.** What did you observe about the test tubes as the solids dissolved in them ? Be specific !

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**2.** Write below the meaning of exothermic and endothermic, and tell which of the above solutions was exothermic and which was endothermic.

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