**NOTES 3.3: Chemical and Physical Changes**

**Demo: Elephant Toothpaste  
2H2O2(aq) 🡪 2 H2O + O2 (g)**

1. Describe what happens when the chemicals are mixed and when the burning splint is brought near the reaction

2. From your observations list evidence that a chemical change has occurred



3. Was the chemical reaction endothermic or exothermic? Explain.

**DEMO: Barium Hydroxide and Ammonium Chloride  
Ba(OH)2 ·8H2O(s) + 2 NH4Cl(s) 🡪 BaCl2(s) + 10 H2O(l) + 2 NH3(g)**

***Initial Observations: Predictions:***

***Observations after chemicals were combined:***

**DEMO: Barium Hydroxide and Ammonium Chloride (cont.)**

***Conclusions:***

* List the evidence from your observations of a chemical change.
* List the evidence from your observations of a physical change.
* Was the chemical reaction endothermic or exothermic? Explain what evidence suggests whether the chemical reaction was endothermic or exothermic.