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## Underwater Fireworks Demonstration Worksheet

## **Discussion Questions**

1. Describe what happened in this demonstration.

- 2. Write two balanced chemical equation showing:
  - a. The generation of acetylene  $(C_2H_2)$  from calcium carbide and water
  - b. The generation of chlorine from sodium hypochlorite and hydrochloric acid
- 3. Acetylene is a hydrocarbon containing double and triple bonds between carbon atoms. Chlorine is a halogen with seven electrons in its outer energy level. Explain why chlorine reacts with acetylene the way it does.

4. Define activation energy.

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