ANALYSIS

1. **ANALYZE THE REACTION BETWEEN HYDROCHLORIC ACID AND MAGNESIUM.**

- Prepare a flow diagram and write a balanced chemical equation for the reaction between HCl and Mg.
- Explain what a "salt" is, and describe how they look dry and in a solution.

2. **ANALYZE THE REACTION BETEEN LEAD (II) CHLORIDE AND POTASSIUM IODIDE.**

- Prepare a flow diagram and write a balanced chemical equation for the reaction between $PbCl_2$ and KI.
- Explain why Potassium Chloride is a salt.
- Explain why Lead(II) Iodide is a precipitate.

3. **DETERMINE THE REACTION RATES FOR ALKASELTER AT DIFFERENT TEMPERATURES.**

- Calculate the Reaction Rates for the AlkaSeltzer Tablets by dividing the mass of the tablet by the time the reaction took in each case. This will be in grams/second.
- Comment on the factors that influence reaction rate.

4. **GRAPH REACTION RATE VERSUS TEMPERATURE FOR ALKASELTZER IN WATER.**

- Prepare a Reaction Rate vs. Temperature graph for the tablet in room-temperature, hot and ice water.
- Comment on how temperature affects reaction rate.

SYNTHESIS QUESTIONS

1. Define the terms reactant, product and precipitate.

2. Why is it necessary to balance chemical equations?