Name:	Period:	Date:	

## Measuring Reaction Rates Exit Quiz – Student Edition

The reaction between zinc metal and hydrochloric acid is represented by the following equation:

$$Zn(s) + 2HCl_{(aq)} \rightarrow ZnCl_{2(aq)} + H_{2(g)}$$

Select the best answer for each question based on this reaction.

- 1. The dependent variable for an investigation using this reaction would be...
  - a) The amount of hydrogen gas produced
  - b) The concentration of the acid
  - c) The surface area of the zinc metal
  - d) The temperature of the acid
- 2. Which of the following would be an appropriate independent variable for this reaction?
  - a) The change in mass of zinc
  - b) The rate of hydrogen gas produced
  - c) The concentration of hydrochloric acid
  - d) The time taken for the zinc to disappear
- 3. Which of the following is an example of a controlled variable for this reaction?
  - a) The time taken for the zinc to disappear
  - b) The volume of liquid used
  - c) The amount of hydrogen gas produced
  - d) The amount of zinc chloride produced

