

## Interpreting Rates of Reaction Activity Answers

- 1.** *The graph which is most likely to be produced from experiment 2 is **Graph C***  
The concentration of the acid is the same as in experiment 1 so the rate of reaction will be the same. There is, however, twice as much calcium carbonate used so the volume of carbon dioxide collected will be twice that collected in experiment 1.
- 2.** *The graph which is most likely to be produced from experiment 3 is **Graph A***  
The only difference in the conditions compared with experiment 1 is that there is twice as much acid. This will not make any difference to the graph as it is the marble chips that are used up, not the acid, so the graph will be the same.
- 3.** *The graph which is most likely to be produced from experiment 4 is **Graph D***  
The acid is twice as concentrated compared with experiment 1 so the rate of reaction will be faster. The amount of calcium carbonate used up is the same so the volume of carbon dioxide produced will be the same.
- 4.** *The graph which is most likely to be produced from experiment 5 is **Graph D***  
The temperature is higher than it is in experiment 1 so the rate of reaction will be higher. The amount of calcium carbonate is the same so that the volume of carbon dioxide produced will be the same.
- 5.** *The graph which is most likely to be produced from experiment 6 is **Graph B***  
The concentration of the acid is twice what it is in experiment 1 so the rate of reaction will be higher. The amount of calcium carbonate is twice what it is in experiment 1 so that the volume of carbon dioxide will also be twice that produced in experiment 1.