

## C2 Rates of Reaction Quiz

1. What do you see when magnesium is added to an acid?
2. Describe an experiment to show how concentration affects rate?
3. Why do catalysts work for a long time before they need to be replaced?
4. What happens to a catalyst at the end of a reaction?
5. Explain the shape of a 'volume-time' rates graph.
6. When water is sprayed onto a fire caused by the reaction between magnesium and acid, why does the reaction slow down?
7. Chewing antacid tablets is better than swallowing them whole. Why?
8. Define rate of reaction
9. What is the collision theory?
10. Define activation energy
11. How do you find the rate of a precipitation reaction?
12. How do you find the rate of a reaction that produces a gas?

13. Why should bread be placed in the fridge?
14. How and why does increasing temperature increase rate?
15. Why does increasing the concentration increase the rate?
16. What is a catalyst?
17. How does a catalyst work?
18. How does a biological washing powder work?
19. Draw a graph that shows a reaction at two different temperatures.
20. What can you tell me about the energy distribution of particles in a hot and a cold sample?
21. Which reaction is fastest?
  - A) 1g limestone powder, 100cm<sup>3</sup> of 1mol dm<sup>-3</sup> acid and 30°C
  - B) 1g limestone solid, 100cm<sup>3</sup> of 1mol dm<sup>-3</sup> acid and 40°C
  - C) 1g limestone powder, 100cm<sup>3</sup> acid of 1mol dm<sup>-3</sup> and 40°C.
22. Which property of a catalyst will never change?
23. Why is a catalyst often spread over a honeycomb surface?
24. An experiment between magnesium and acid is carried out in the lab. The experiment is repeated with half the amount of magnesium. How is the time/volume graph different?

25. Although gold is rare and expensive, it is used as a catalyst in industry. Why?
26. Marble chips react with acid. At the end of the reaction there are still some chips left over. Why?
27. Why does increasing the surface area increase the rate?