



## Factual Recall Questions for AQA GCSE Chemistry Unit 6 The Rate and Extent of Chemical Change



To accompany the YouTube video:

[https://youtu.be/uYdHb\\_VAt34](https://youtu.be/uYdHb_VAt34)

1. What is the rate of a reaction?
2. What is collision theory? (2 marks)
3. What is activation energy?
4. Draw an energy profile for an exothermic reaction
5. On the energy profile, label the activation energy
6. On the energy profile, label the overall energy change
7. Give two formulae for calculating mean rate of reaction
8. Give two units for rate of reaction
9. What two pieces of data do you need to calculate a mean rate?
10. How can you identify the rate of a reaction from a graph?
11. What formula would you use to calculate the rate of a reaction based on a graph of mass (Y-axis) against time (X-axis)?
12. How could you calculate a value for rate of reaction if a graph were curved?
13. Identify five factors that you could change to alter the rate of reaction
14. How would you increase the surface area of a substance?
15. What impact on surface area will it have if you cut each side of a cube into two?
16. Describe the effect of increasing surface area on rate of reaction
17. Explain why this occurs
18. Describe how to calculate the surface area to volume ratio of a cube.
19. Describe the effect of increasing concentration on rate of reaction
20. Explain why this occurs
21. Describe the effect of increasing temperature on rate of reaction
22. Explain why this occurs
23. What is a catalyst?
24. How does it do that?
25. Modify your energy profile to show how it would look different if a catalyst was used
26. Why does using a catalyst save money?
27. What is a precipitate?
28. How can you tell that a reaction produces a precipitate?
29. What is turbidity?
30. Name two ways you could measure turbidity in an experiment.
31. How can you tell that a reaction produces a gas?
32. Describe the process of "collecting gas over water"
33. Which equipment can you use to collect gas, other than collecting it over water?
34. Describe what is meant by a reversible reaction
35. Draw the symbol for a reversible reaction
36. Describe the forward and backward parts of reversible reactions in terms of energy changes
37. Define equilibrium
38. Define a closed system
39. **HIGHER TIER ONLY** Describe the impact of adding a reactant on the position of equilibrium
40. **HIGHER TIER ONLY** Explain why this is the case
41. **HIGHER TIER ONLY** Describe the impact of adding a product on the position of equilibrium

42. **HIGHER TIER ONLY** Explain why this is the case
43. **HIGHER TIER ONLY** Describe the impact of increasing the temperature on the position of equilibrium
44. **HIGHER TIER ONLY** Explain why this is the case
45. **HIGHER TIER ONLY** Describe the impact of increasing the pressure on the position of equilibrium
46. **HIGHER TIER ONLY** Explain why this is the case
47. **HIGHER TIER ONLY** Describe the impact of adding a catalyst on the position of equilibrium
48. **HIGHER TIER ONLY** Explain why this is the case