

COLLISION THEORY EXPLANATION

Paper: 1C
Question: 13(e)

Example 1

Your mark

Because there are lower ^{energy} concentrations in the other experiments, there would be less frequent and successful collisions taking place. Magnesium goes from a solid to an aqueous ~~magnesium~~ and hydrogen goes from being an aqueous to a gas showing that it has lost energy throughout each experiment reducing the rate of reaction.

(Total for Question 13 = 12 marks)

Example 2

Your mark

As the reaction progresses there will be less and less particles to react with. This will lead to less collisions and less successful collisions between the particles. This will decrease the rate of reaction.

Example 3

Your mark

As the number of hydrogen ions (H^+) decreases over the course of the reaction (as they react with ~~the~~ magnesium), fewer successful collisions between magnesium and hydrogen ions occur, thus ~~slowing~~ decreasing the rate of reaction.