

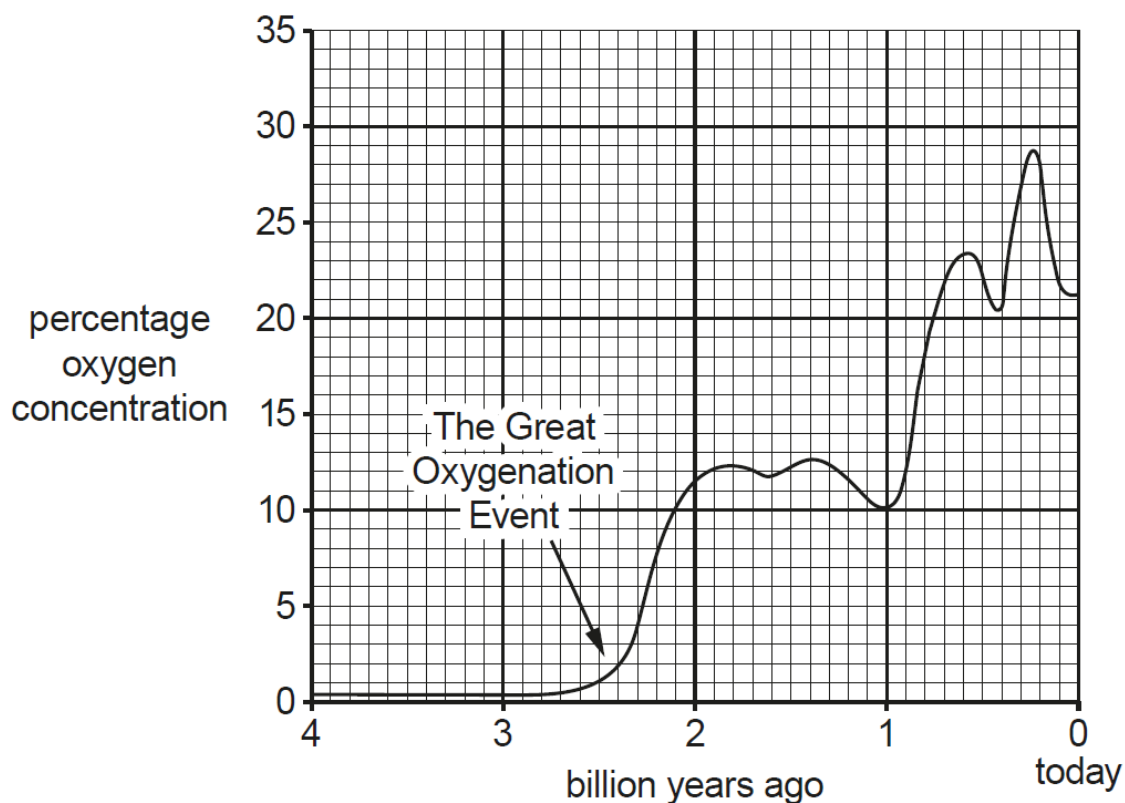
GCSE Chemistry B (Twenty First Century Science)

J258/03 Breadth in chemistry (Higher Tier)

Question Set 4

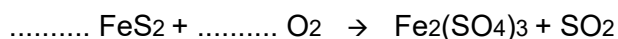
1 The percentage of oxygen gas in the Earth's atmosphere has generally increased over time.

This graph shows the percentage oxygen concentration in the Earth's atmosphere over the last 4 billion years.



- (a) (i) Describe how the oxygen content of the Earth's atmosphere has changed during the last four billion years. [2]
- (ii) The concentration of oxygen has increased from two billion years ago to today.
By what factor has it increased? [1]
- (iii) Explain what caused the sudden increase in oxygen concentration 2.5 billion years ago and explain why the concentration did not continue to rise. [2]
- (b) Iron pyrites in rocks was oxidised to compounds like iron(III) sulfate by the oxygen in the early atmosphere.

Complete the **balanced chemical** equation for this reaction.



[1]

Total Marks for Question Set 4 : 6

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