

Chemistry – Chemical Changes 1-6 & Earth's Atmosphere 1-4

Key Knowledge Questions

1. Define what an ore is
2. What is the general equation for the reaction of a metal with oxygen?
3. What type of reaction is characterised by the addition of oxygen or loss of electrons?
4. What type of reaction is characterised by the removal of oxygen or the gain of electrons?
5. What ions do metals form?
6. Name the type of reaction where a more reactive metal reacts with a less reactive metal compound.
7. What is the general equation for the reaction of a metal with water?
8. What element is used to extract less reactive metals such as iron?
9. What gas is formed when carbon is used to extract metals?
10. Name the three acids.
11. What salt is formed when a metal reacts with hydrochloric acid?
12. What salt is formed when a metal reacts with sulfuric acid?
13. What salt is formed when a metal reacts with nitric acid?
14. What gas is formed when a metal reacts with an acid?
15. What is the general equation for the reaction between a metal and acid?
16. What were the three main gases in the early atmosphere?
17. What is thought to have released gases into the early atmosphere?
18. What was formed when the earth cooled?
19. Name three stores of carbon
20. What process in plants caused carbon dioxide levels to decrease in Earth's early atmosphere?
21. What process in plants caused oxygen levels to rise?
22. Describe a reaction that caused Nitrogen levels to rise
23. Name the three most prominent gases in today's atmosphere
24. What % is Nitrogen and Oxygen in our atmosphere?
25. Name the three main types of greenhouse gases
26. What type of radiation is trapped by greenhouse gases?
27. Name two types of human activities that increase carbon dioxide levels
28. Name two types of human activities that increase methane levels
29. State an effect of climate change
30. Describe one way of reducing your carbon footprint.

1. Rock that is economical to extract metal out of
2. Metal + Oxygen → Metal Oxide
3. Oxidation
4. Reduction
5. Positive
6. Displacement
7. Metal + Water → Metal Hydroxide + Hydrogen
8. Carbon
9. Carbon Dioxide
10. Hydrochloric, Sulfuric, Nitric
11. Metal Chloride
12. Metal Sulfate
13. Metal Nitrate
14. Hydrogen
15. Metal + Acid → Metal Salt + Hydrogen
16. Carbon Dioxide, Nitrogen & Water Vapour
17. Volcanic Activity
18. Oceans
19. Oceans, Plants, Rocks, Fossil Fuels
20. Photosynthesis
21. Photosynthesis
22. Ammonia reaction with Oxygen or Release by Bacteria
23. Nitrogen, Oxygen & Argon
24. Nitrogen – 78%, Oxygen – 20%
25. Carbon Dioxide, Methane & Water Vapour
26. Short Wave
27. Burning Fossil Fuels, Deforestation
28. Rice Paddy Fields, Increased Cattle Farming
29. Rising Sea Levels, Increased Rain Fall, Increased Flooding, Increased Extreme Weather, Species extinction, Habitat loss, Drought
30. Reduce use of cars, reduce long haul flights, Reduce Electricity use, Reduce Energy consumption at home