What is ACID RAIN? | Acid Rain | Dr Binocs Show | Kids Learning Video | Peekaboo Kidz

Study Guide: Acid Rain

Important Concepts

* Acid Rain: Precipitation containing acids formed by the reaction of sulfur dioxide and nitrogen oxide gases with water in the atmosphere.
* Wet Deposition: Acid rain in liquid form.
* Dry Deposition: Acid rain in dust or gas form.
* pH: A measure of acidity, with lower values indicating higher acidity.

Definitions

* Fossil Fuels: Natural resources formed from the remains of ancient plants and animals, such as coal, oil, and gas.
* Carbonic Acid: A weak acid formed when carbon dioxide dissolves in water.
* Sulfuric Acid: A strong acid formed when sulfur dioxide reacts with water.
* Nitric Acid: A strong acid formed when nitrogen oxide reacts with water.

Potential Exam Questions and Answers

Question 1: What are the two main sources of sulfur dioxide and nitrogen oxide gases?

Answer: Natural sources (e.g., rotting vegetation, volcanic eruptions) and human activities (e.g., burning fossil fuels, vehicle emissions).

Question 2: How does burning fossil fuels contribute to acid rain?

Answer: Burning fossil fuels releases sulfur and carbon atoms, which combine with oxygen in the air to form sulfur dioxide and carbon dioxide. These gases then react with water in the atmosphere to form sulfuric acid and nitric acid.

Question 3: What are the main ecological effects of acid rain?

Answer: Acid rain makes aquatic environments more acidic, harming fish and other aquatic life. It also damages forests by degrading leaves and depleting soil nutrients.

Question 4: What can be done to reduce acid rain?

Answer: Reduce the burning of fossil fuels and spread awareness about the issue.

Question 5: How does acid rain damage buildings and monuments?

Answer: Acid rain reacts with calcium compounds in limestone and marble, causing them to dissolve and weaken.

Additional Notes

* The pH of normal rain is around 6, while acid rain typically has a pH below 5.6.
* Acid rain can also damage crops, infrastructure, and human health.
* Planting trees and using alternative energy sources can help mitigate acid rain.