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

Acid Rain: Definition and Causes

Timestamp: 00:00 - 02:50

* Definition: Acidic rain formed when gases like sulfur dioxide and nitrogen oxide react with water in the atmosphere.

* Types:
    * Wet deposition: Acid rain containing water
    * Dry deposition: Acid rain containing dust or gases

* Sources of gases:
    * Natural: Rotting vegetation, volcanoes
    * Human activities: Burning fossil fuels, vehicle emissions, factories

Chemical Process of Acid Rain Formation

Timestamp: 02:50 - 05:20

* Normal rain: Slightly acidic due to dissolved carbon dioxide (pH 6)
* Acid rain: Increased acidity due to sulfur dioxide and nitrogen oxide (pH 3)
* Example: Burning fossil fuels releases sulfur and carbon atoms that combine with oxygen to form sulfur dioxide and carbon dioxide, which react to form sulfuric acid and nitric acid in rain.

Ecological Effects of Acid Rain

Timestamp: 05:20 - 07:30

* Acidifies lakes and rivers, releasing toxic aluminum.

* Damages leaves and depletes soil nutrients in forests.

Solutions to Acid Rain

Timestamp: 07:30 - 08:20

* Reduce burning of fossil fuels.
* Spread awareness about the issue.

Additional Information

Timestamp: 08:20 - 09:00

* Acid rain damages buildings and monuments made of limestone and marble due to their high calcium carbonate content.
* Taj Mahal in Agra affected by exhaust gases from a nearby refinery.