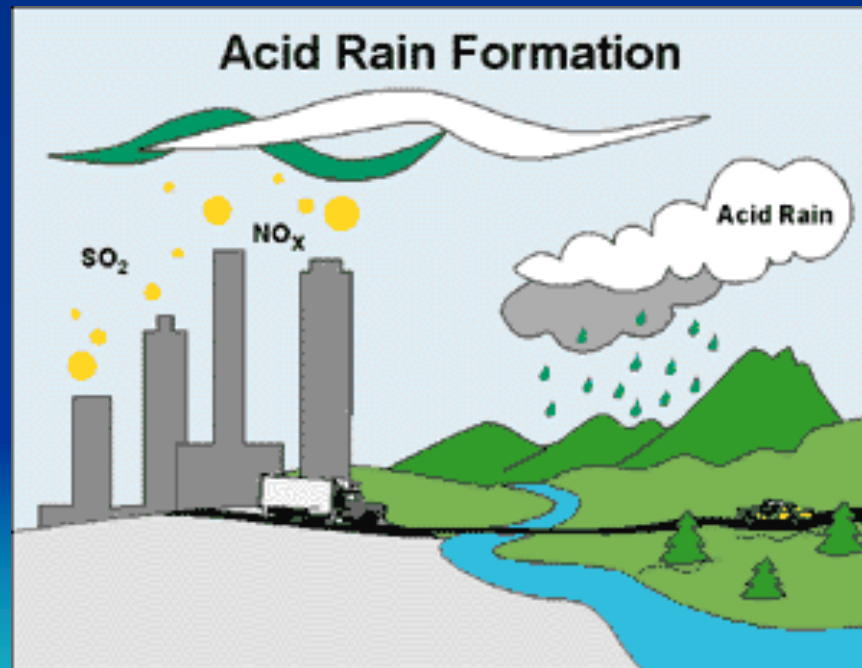


Acid Rain



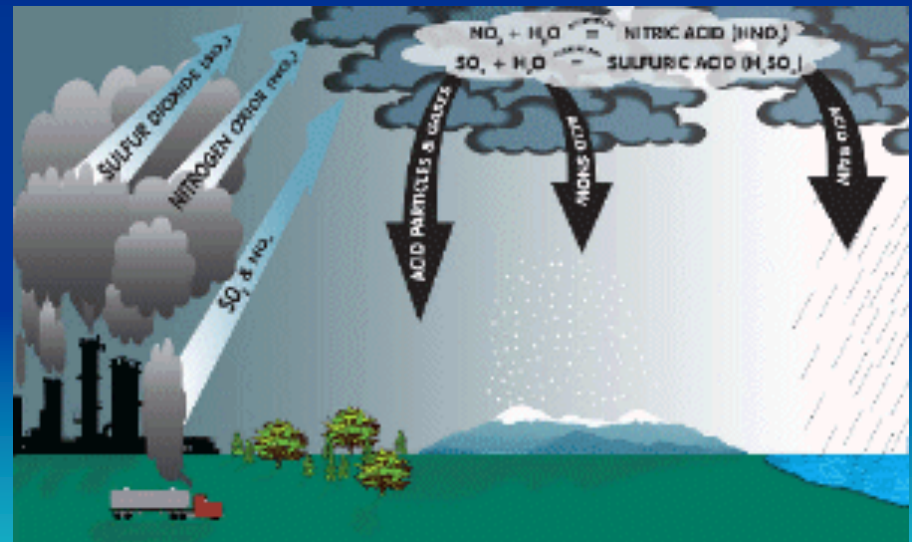
Educational Objectives

- **To understand how the pH level of an environment affects living organisms.**
- **To understand the relationship between the pH level and CO₂ concentration of distilled water.**



What is Acid Rain

- Formed when gases, such as CO_2 and SO_2 react with the water in the atmosphere
- The pH of Rain drops
 - As low as pH of 2
 - Very harmful to our living environment

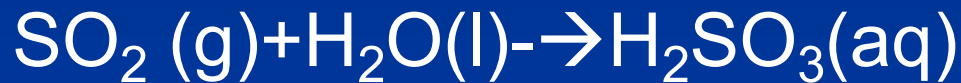


Examples

- When CO_2 reacts with water, carbonic acid is formed.



- When SO_2 reacts with water, sulfurous acid is formed.



- When NO_2 reacts with water, nitric acid is formed.



How does Acid Rain effect us

- It kills micro-organisms
- It poisons plants
- It damages metals and limestone
- It kills fish



Procedures

- Record the pH of distilled water by using the pH probe for 1 minute
- Rinse the probe, and put it back into the buffer solution
- Record the pH of the same water as you blow into the water for 1 minute



Questions

- Why do we blow 'air' into the water? What are we really mixing the water with?
- What changes in pH do you expect?
- Is this a good simulation to the Acid Rain formation? Explain.

