Water contains oxygen

Background

Oxygen gets into water by diffusion from the surrounding air, by aeration (rapid movement), and as a waste product of photosynthesis. Icy water contains one twentieth the oxygen that air has and warmer water contains even less. Oxygen in water is essential for the sustenance of aquatic life. It is oxygen that fish and other aquatic animals draw through their gills to be able to breathe.

Methodology

- Fill a clean glass jar (like a jam bottle) with tap water and place it in front of a bright window.
- Watch the water on the top and very soon you will see air bubbles rising to the surface.
- After the bubbling has stopped and the water becomes clear, add a tea spoon of salt into the jar.
- Close the lid of the jar and turn it over once. Then return the jar to an upright position.
- Study the jar again.
- More bubbles will rise to the surface of the water. Where did these come from?
- As salt was added to the water, more oxygen was driven from the water, because salt dissolves more easily in water than air, thereby replacing air.

Activity

Objective
To understand that water contains oxygen

Place Home / school

Duration 15 - 30 min

Group size Individual/ group

Material

Glass jar / Jam bottle, teaspoon, salt, water

Curricular Linkages

Science / Geography

Concept Understanding that gases like oxygen are dissolved in water.

