



Just a Drop



Students know that water is a critical component of any fish's habitat. The purpose of this activity is to show that only a small proportion of the Earth's water supply is freshwater. This has serious implications for organisms that live in freshwater habitats.

Begin this activity with a brainstorming session involving the entire class. Ask the students to think about the total supply of water on Earth. Where is it found? It would help to have a globe or world map available. Write all their ideas on the board or flip chart. They may suggest a wide range of answers but all their suggestions should eventually be grouped into four main categories:

- oceans (salt water)
- lakes, rivers and streams
- ice and glaciers
- ground water

Just a Drop is based on these categories. Note that the proportions are based on total volume, not surface area. This will be a very dramatic activity. Most students don't realize how little water is contained in freshwater habitats. They may need to be convinced. Done as a demonstration, it will be less messy. However, if done by small groups, the students will gain experience in measuring and will be more convinced by the results.

Each group will need five containers; they will also need a way to measure water in milliliters and some masking tape or labels. Food colouring could be used to make the water levels more visible. Although the activity focuses more on proportions than actual measurements, the students should be encouraged to be as accurate as possible.

Depending on grade level, the water cycle could be discussed as part of this activity. Students are fascinated by the fact that the Earth's water supply has been recycling over and over again and



that there is basically no "new" water on earth.

In the end, the amount of water left for freshwater fish is only 1 ml. On a larger scale, this equates to significantly less than 1/10 of the total supply of water on Earth, actually 1/1000 or 0.001.

Discussion Question

What do the results of this activity mean for plants and animals that live in freshwater habitats?

The implications for freshwater organisms are great because it means there are very few places where they can live. Freshwater systems are vulnerable to both natural and human pressures. A fish's habitat can dry up because of little rainfall or because of activities such as road construction or infilling. Freshwater habitats are also being destroyed by pollutants from many sources. Access to freshwater is sometimes made difficult by hydrodams. When there is so little freshwater habitat available for fish, these threats are very serious.