

Let's Explore Water

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Learning Goals

- Explain that water is a liquid
- Understand that water freezes and melts
- List places where water is found
- Discuss how all living things need water

Video Summary

Exploration Segment

Children in the video describe qualities of water, a liquid. Viewers then see places where water can be found. Water collects in puddles, ponds, rivers, lakes, and oceans, and travels to us through pipes and hoses.

Concept Development Segment

Rain is one source of water, which we use in many different ways. The hostess narrates a puppet play about the importance of water and rain.



Application Segment

A teacher and her students describe the qualities of ice and explore making ice from water. "You Try It" challenges children to think of ways they can conserve water and asks them to see which uses less water: a bath or a shower.

Key Words

conserve	to keep from being lost, damaged, or wasted
freeze	to harden into a solid by loss of heat
liquid	a substance that is not solid
melt	to change from a solid to a liquid by gaining heat
shortage	a lack of a certain amount needed

Let's Do It

- Show children a collection of items that are associated with water, such as an umbrella, an ice cube tray, a spray nozzle, a drinking glass, etc. Have children describe how each object is used. Then ask, *Can you guess what the video program will be about?*
- Tell students: *Watch this video to see what you can learn about water.*
- Begin the tape. Stop/pause it after viewing children using water in a variety of ways. Now have your students answer the hostess's question: "How do you use water?" Help children recall their typical activities from morning to evening, and discuss which activities involve water. Ask, *When else do you use water?* Write all answers on the chalkboard, then continue playing the video to see how animals use water.

You Try It

How can you conserve, or save, water during a water shortage? Discuss what happens during a water shortage, and why it happens (reasons will vary according to the local environment: lack of precipitation, high heat, high agricultural use, contamination, etc.). Refer children to their list of ways that they use water everyday, and help them think of ways they could reduce the amount they use. Encourage them to work with their parents to test how much water they use for a bath or shower, for washing dishes, washing the car, etc.

More Exploring

Explore ice. Have children use simple thermometers and their senses to examine and describe some ice cubes. Fill some glasses with water and ask children to take the water's temperature. Then drop the cubes into the water and have children describe what happens. After the ice has melted, have students take the water temperature again. *What happened?* Now fill ice cube trays with water and ask children to predict what will happen when the trays are put in a freezer. When the water has frozen, discuss what ice is. Have children name different kinds of ice (snow, slush, icebergs, hail, polar ice caps). Now place a number of cubes in a clear dish and set it under a hot lamp or in a sunny place. Ask children to predict what will happen.

Where can you find ice in nature? Discuss the different forms that ice can take (snow, hail, icebergs, frost) and places where children have seen ice. Have them draw pictures of things they like to do with ice.

Explore water. Use a medicine dropper or spray bottle to make water drops on a sheet of waxed paper. Challenge students to find ways to move the water across the paper. Ask them to describe what happens when the water moves. Now make some more drops on a piece of cellophane paper. Carefully slide a printed page under the paper and ask children to look at the print through the water drop. Ask, *What do you notice?* Have them explore ways to change the size of the print by changing the size of the water drop.

Make a class list of how people, animals, and plants use water (if not done while watching the video, as suggested above). Then discuss why water is important to each activity. Children may also imagine how they would do each activity without water.

Explore water's properties. Provide students with a variety of materials for exploring water: Water, glasses, paper, sand, food coloring, dry sponges, dry watercolor paint, and so on. Encourage children to observe how water reacts with each object, noting when water sticks to or is absorbed by certain things.

Explore waves and sprays. Let children move their hands at a variety of speeds through a tray of sitting water. Ask students to describe what happens. (The water forms waves and splashes.) Ask, *Where else have you seen waves and splashes?* Discuss. Then give children some spray bottles filled with water and have them spray a variety of porous and nonporous surfaces (dark paper, sand, a plant, a sheet of plastic,

skin, different fabrics, metal, etc.) Ask children to describe what they see on the surfaces (the water will be absorbed into some of the materials and will form water beads on top of others). Discuss which materials would be good for making umbrellas and raincoats.

Art—Make a collage of places where water can be found. Use children's drawings or photos they cut from magazines.

Language arts—Have children use the key words from this lesson to write sentences about water.

Have children act out *Shower Power*, the play presented in the video. Use the narration below, or have students suggest new lines.

Shower Power

Everything needs water to sip.

My flower's in bloom.

It's thirsty, I assume.

My dog's bowl is dry.

I sigh, "Oh my."

My goldfish is sinking—

It needs fluid, I'm thinking.

And this empty glass

Is no help for a thirsty lass.

To all of these,

Give them water, please!

On every street and lane,

What we really need is rain.

Hey cloud! Show us your power

to provide a shower!

Ahhh. These drops and drips

Give us wonderful sips.

For living things like us,

Rain is glorious!

