

Importance of Access to Clean Freshwater Presentation Script

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Today we will be talking about freshwater availability and the importance of access to freshwater!

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There are 5 basic needs that all living things need. Do you know what they are? All living organisms need air, food, sunlight, a proper habitat and WATER in order to survive. So why do living things need water?

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Living things need freshwater in order to stay alive. From animals to plants, they all rely on freshwater to function. Some organisms need more water than others. They use water for many different purposes.

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Plants need much more water than many other types of organisms. Plants contain more water than animals - plants are about 90% water. Plants drink water from the ground through their roots. The water travels all the way from the roots to the leaves where it evaporates back into the air through transpiration. The amount of water a plant needs depends on the type of plant, how much light the plant gets, and how old the plant is.

1. Seeds depend on water to germinate. Water is one of the primary signals telling a plant seed that it's time to germinate and grow.
2. Plants are mostly made of water. Their cells are 80-90% water! The water fills the cells and holds plants upright, giving them their shape/ volume.
3. Water is a main ingredient in photosynthesis, the process by which plants create their energy.
4. Plants use water to regulate their temperature. Plants release water from their stems and leaves to cool down (plants "sweat").
5. Water delivers essential nutrients to plants. Plants can only absorb the nutrients they need when the nutrients are in a liquid solution with water.
6. Plant "helpers" depend on water. The beneficial soil organisms that help plants grow all depends on access to water for survival.

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Animals need fresh water for their bodies to function. They gain water not only through the action of drinking but also from the food they eat. Water is vital for

bodily functions such as regulation of temperature, nutrient uptake, removing wastes, body weight, and health. Even some marine animals (animals that live in the sea), like manatees, require a freshwater source of drinking water.

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Humans also need water to survive. We use freshwater in many ways, such as washing our hands, drinking water, and taking showers or baths everyday. It is important to do all of these things to stay healthy!

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Our hands are full of germs, Yuck! Even if we do not see them, there are thousands of germs on our hands. That's why it is super important to wash our hands frequently and thoroughly. Washing hands prevents illnesses and spread of infections to others

Hand washing with soap removes germs from hands. This helps prevent infections because:

- People frequently touch their eyes, nose, and mouth without even realizing it. Germs can get into the body through the eyes, nose and mouth and make us sick.
- Germs from unwashed hands can get into foods and drinks while people prepare or consume them. Germs can multiply in some types of foods or drinks, under certain conditions, and make people sick.
- Germs from unwashed hands can be transferred to other objects, like handrails, table tops, or toys, and then transferred to another person's hands.
- Removing germs through hand washing therefore helps prevent diarrhoea and respiratory infections and may even help prevent skin and eye infections.

Teaching people about hand washing helps them and their communities stay healthy. Hand washing education in the community:

- Reduces the number of people who get sick with diarrhoea by 23-40%
- Reduces diarrheic illness in people with weakened immune systems by 58%
- Reduces respiratory illnesses, like colds, in the general population by 16-21%

Slide 8

We also need water to drink. Especially living in a warmer climate, we must hydrate ourselves. Did you know your body is 65% made up of water? All of our organs need water to function at its maximum capacity. We should drink on average a total of 8 cups of water each day!

1. Drinking Water Helps Maintain the Balance of Body Fluids. Your body is composed of about 60% water. The functions of these bodily fluids include digestion, absorption, circulation, creation of saliva, transportation of nutrients, and maintenance of body temperature.
2. Water Helps Energize Muscles. Cells that don't maintain their balance of fluids and electrolytes shrivel, which can result in muscle fatigue. When muscle cells don't have enough fluids, they don't work as well and our physical performance can suffer.
3. Water Helps Your Kidneys. Body fluids transport waste products in and out of cells. The main toxin in the body is blood urea nitrogen, a water-soluble waste that is able to pass through the kidneys to be excreted in the urine. Your kidneys do an amazing job of cleansing and ridding your body of toxins as long as your intake of fluids is adequate.
4. Water Helps Maintain Normal Bowel Function. Adequate hydration keeps things flowing along your gastrointestinal tract and prevents constipation. When you don't get enough fluid, the colon pulls water from stools to maintain hydration and the result is constipation.

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The average person typically uses about 120 gallons of water everyday. Although we need to use freshwater everyday, we can make small changes to encourage the conservation of water.

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We know how important freshwater is to all living things, which means it's constantly being used. So, with so many living things depending on freshwater it's important to know how much freshwater we have access to. When there is a lack of freshwater or access to freshwater we say that it is 'scarce'.

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We live on an Island in the Atlantic Ocean. So, instead of being surrounded by freshwater lakes and rivers, we are surrounded by saltwater. Even our groundwater can turn "brackish" or salty from saltwater intrusion from beneath the surface.

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We already learned that we have very little freshwater available to us on our island, so we must do our part to save (conserve) water! What do you think we can do to use less water? Here are some ways:

- 1) Take showers instead of baths
- 2) Take shorter showers
- 3) Turn the faucet off when brushing your teeth or washing your hands
- 4) Tell your parents if you find any leaks around the house

Do you have any other suggestions on how we can conserve water?

HIGH SCHOOL

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