

Lesson Plan 3: Water as a Vital Resource



45 minutes total

Lesson Description



In this lesson participants will discuss where fresh water comes from, its scarcity and how to protect it.

Learning Outcomes



At the end of this session participants will be able to:

1. Identify the distribution of fresh and salt water in the world.
2. Explain the importance of protecting fresh water.

Materials



- Flip chart paper
- Board markers
- Laptop Computer and Projector
- Water cycle picture
- Amount of water in the world pictures.

Preparation



- Write the learning outcomes or learning description on a flipchart paper
- Read the lesson in the participant manual
- Check if the projector is working.
- Review the power point presentation.

Introduction

5 minutes



1. Ask participants if the amount of water in the world is increasing or decreasing? If yes or no why? *The amount of water in the world neither increasing nor decreasing, but its state is constantly changing between liquid, gas and solid.*
2. Present the learning outcomes.

Topic 1: Water cycle in nature

15 minutes



1. Ask the participants for a volunteer to come to the front of the room and draw the water cycle on flipchart paper. (precipitation, Evaporation, Transpiration, Infiltration, and Runoff)
2. Ask other participants to come to the front and add any remaining elements that have not been covered.
3. Fill in any missing part of the water cycle.

4. Ask a participant to explain the water cycle to the rest of the group. *Water evaporates and transpires into gas form into the atmosphere. When the vapor cools, it turns into liquid in the form of droplets and start to fall on the ground and the ocean. When it touches the ground it either infiltrates into the ground or runs off into rivers and streams. The rivers then end up in the oceans. When it is hot, it evaporates again the cycle continues.*

Topic 2: Distribution of water in the world and fresh water scarcity.
30 minutes

1. Divide the participants into groups of 3-4 people.
2. Ask the participants to look at the drawing of the water cycle. Ask them to "how much water do you think there is in every part of the water cycle?" Allow them to discuss in their groups.
3. Present the power point presentation of water distribution in the world.
4. Ask the participants "why is it important to protect fresh water?" (*because the amount of fresh drinkable water is reducing as population rises and we use more for industry and agriculture, treating of wastewater is expensive and difficult to treat, etc.*)
5. "Some scientists have argued that the 3rd World War will be a war for resources, specifically, a war for fresh water. They believe that fresh water will reduce to an amount that will cause wars. Why do you think they say this?"
 - a. *Climate change means that there are now more droughts,*
 - b. *Higher population means a higher use for water,*
 - c. *As countries become more rich, people want to eat more meat, in order to have 1kg of beef, you require 100 000 Litres of water (to grow the food that the cows will eat).*
 - d. *More people want access to laundry machine, sewers, dishwashers, etc.*
 - e. *People are using more and more plastic, which is polluting and contaminating fresh water sources,*
6. Ask the participants: "What are some ways that we can protect fresh water?" Write down their answers on flipchart paper.
 - a. *Protect rivers and lakes from factories, use less plastic, stop open defecation, don't litter, don't use drinking water for other purposes, build groundwater recharge systems, use washing machines that are low water-use, etc.*

Review
5 minutes

1. Ask the participants to stand in two lines face to face, first line is group A and second line is group B
2. Ask the people who are A to explain to B: "What is the water cycle".
3. Ask the people who are B to explain to A: "What is the importance of fresh water and how can we protect it".

Reflections on Lesson