teri school of advanced studies

Google Earth Education

LESSON TITLE : Water Conservation	TIME [190 minutes]

OVERVIEW : Students will study the Rainfall Pattern in India using Google Map. They will understand the need to conserve water. Children will know about the traditional wisdom in this area through Google earth story, some water harvesting techniques in ancient India .

SUBJECT/TOPIC : Science , Water Conservation	AGE LEVEL : 10-11 years

Learning Objective

Children will understand the unequal distribution of water and traditional methods of water conservation.

Inquiry

Why and how to conserve water ?

Materials Needed

Access to Google Earth and Google Maps
Internet connection
Text Book Science, Class VI , NCERT

Lesson Summary

- Engage: Study the google map Rainfall Pattern in India .
- Explore: Read about unequal distribution of water on the earth and in India.
- Explain: Children should understand that water on the earth is limited and availability of water to all people in all the regions of India and the world is also not uniform. Thus there is a need to conserve water.
- Revise: Read lesson from text book and co-relate the facts.
- Apply: List day to day activities to conserve water. Think big , suggest ways and means to conserve water at national and world level.

Sustainable Development Goal

Culminating Task/Assessment

Students will create campaigns to spread awareness about the water crisis and ways to combat it.

Textbook Chapter

Class VI , Sub. Science, Lesson 14 : Water (NCERT)

Engage (5 minutes)

Previous knowledge testing and introduction :

1. Students will list Sources of water on earth
2. Sources of water in their city and the one they are using
3. Question : Is everybody getting the same and equal amount of water ? why ? What can be done about it ?

Explore (25 minutes)

1. Study the Google map Rainfall Pattern in India

2 **Read about unequal distribution of water** on the earth and in India.

3.- How much freshwater is available?
- How much water is suitable for drinking water?
- What is the total world annual consumption of potable water and seawater?

Explain (20 minutes)

1. Students to be divided into groups. Each group to draw inferences from the map.
2. To note down the areas facing water scarcities and floods if any.
3. To discuss Linking of Rivers in India.

Revise (10 minutes)

Answer these
- How much water is there on earth and how much is available for humans?
- How much of the water can be found in oceans?
- How much freshwater is available?
- How much water is suitable for drinking ?
-What is causing the water crisis ?

Next, repeat the process with a second source of information.

Explore (25 minutes)

1. Go through Google earth story, some water harvesting techniques in ancient India .
2. Read the modern **innovative techniques of water conservation.**

Explain (20 minutes)

1. . Students to work in pairs
2. Each pair to explain one ancient technique of water harvesting.
3. Each pair to discuss one way of water conservation at domestic level. Teacher to record all suggestions.
4. Class discussion on modern innovative methods of water conservation.
5. Discussion on WHOSE STAKE and WHOSE RESPONSIBILITY ?

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Revise (10 minutes)

. 1. How does water circulate in nature ?
2. From where do forests and other natural vegetation get water ?
3. State the causes and effects of floods.
4. Explain : water cycle, Drought, Ground water, Precipitation.
5. What are the Sources of water vapour in air ?
6. What causes freshwater shortages ?
7. What is the significance of the water cycle ?

(Option to repeat this process with additional sources of information, each time resulting in an updated hypothesis.)

Apply (80 minutes)

1. class to be divided in groups. Each group writes a slogan and makes a poster on water conservervation. Slogans and posters to be displayed at various water points.
2. GroupA to show water cycle with the help of a model.
3. Group B to display sources and uses of water on Display Board
4. Group C to compile irrigation techniques that are more efficient in terms of water usage.
5. Students create a Google Earth story on patterns of rainfall in the world.

Evaluation Rubric

	Excellent(4)	Very Good(3)	Good(2)	Needs to Improve(1)
Content knowledge				
Presentation				
Participation				

Additional Resources
https://www.nrdc.org/stories/water-pollution-everything-you-need-know https://www.nasa.gov/topics/earth/features/india_water.html

Credits
Written and designed by Nirmal Sheoran