



WWW – Wonderful World of Water



Grade Level: 6th – 8th Grade

Approximate Length: 125 – 180 minutes

Objectives:

- Learn the importance of the water cycle
- Understand that water quality plays a key role in survival for plants, animals and people
- Learn the positive impacts of wetlands and soil to filter water
- Understand the difference between surface water and ground water
- Explore ways that can make a positive difference in water conservation

Science Standards Available (Teacher will identify which standards to bundle):

- ESS2-1 Cycling of Earth's materials
- ESS2-2 Geoscience processes at varying scales
- ESS2-4 Cycling of water through Earth's systems
- ESS2-6 Atmospheric and oceanic circulation
- ESS3-3 Human Impacts on the environment
- ESS3-4 Human consumption of natural resources
- LS2-1 Effects of resource availability
- LS2-2 Interdependent relationships in ecosystems
- LS2-3 Matter cycling and energy flow in ecosystems
- LS2-5 Biodiversity and ecosystem services solutions

Outline for Program:

- **Interest Approach (5-10 min):** Students will start the lesson by talking in their small groups about their favorite activities to do with water. Then they will make a list or chart and write down their water activities based on when they occur in different seasons. Together as a whole group, we will share our answers to see which activities and seasons are most popular.
- **Opening Activity (15-20 min):** During this time, students start off by making their own list of five or more types of weather that effect their favorite water activities. Then they will discuss among their small groups and decide on a speaker to present to the room. When the groups are all done, we will go over the various types of weather listed and examine how these occur.
- **Presentation (45-60 min):** The students will learn about the importance of water quality and how it affects us all. Students start off pretending there is a surface water pollution issue at AgroLiquid and will have to trace the path of water to the ocean. This shows the students how important it is to protect our water and how easily everyone can be affected by pollution. Next, we will explore how different cultures view water quality and how they collect their water. Student will get to see how they can make a difference in water conservation, in their home, community and world. Ultimately, students will learn how their choices can affect the surface water and ground water around them, while also impacting lives from here to the ocean.
- **IQhub Scavenger Hunt (45-60 min):** The IQhub is an interactive museum, that will help the students build on topics they have already learned and grab their attention for some new ones as well. Students can work individually or in small groups to explore the IQhub and learn about agriculture and the environment. This museum incorporates Science, Technology, Engineering and Math (STEM) to give students a well-rounded and fun learning experience.
- **Closing Activity (15-30 min):** Since water plays a key role in keeping living things healthy, it's important to understand how a healthy environment is directly related to water quality. Students will get a chance to stretch their legs and see some easy ways to help increase water quality, through wetland environments. Erosion, filtration and environmentally friendly buildings are other topics discussed during this activity.

Additional Resources on YouTube:

<https://www.youtube.com/watch?v=3VyfN30XzDM>