

River WaterWorks, Inc WaterWorks: A River Journey to the Sea PO Box 565 Somerset, PA 15501 Phone: 814.442.8629 http://www.riverwaterworks.org info@riverwaterworks.org

Curriculum Extensions: WaterWorks: A River Journey to the Sea

Following are a number of suggestions for activities or discussions points that may be used as supplementary material either before and/or after River WaterWorks visits the school. This extension information can also be found online, <u>http://www.riverwaterworks.org</u>

- Use the raw river data from YSI Data Logging Device, which can be found at the River WaterWorks website, to monitor biological, chemical and physical properties of the water. Does the temperature change? What does turbidity mean? Does the turbidity change? What might cause this? How much oxygen is there in the river? Does the amount of oxygen in the water change? What does oxygen do for creatures living in the river?
- Write about what you would do if you were traveling on the river.
- Draw a picture showing what you would see if you were floating down the river.
- Why are there dams on the river? What is a dam? How many are there on the rivers? Why are many being dismantled? Dams help to prevent floods and keep rivers flowing so that they do not dry up in periods of drought.
- Dump a cup of water onto the ground and talk about the journey it takes on its way to the sea.
- Look at your shirt and see if it has buttons on it? What are the buttons made of? Demonstrate how clamshells found in rivers used to be made into buttons before plastic was invented.
- Where does water from the faucet in our homes come from? It comes from groundwater (springs and wells), lakes (reservoirs), or rivers. The water is usually filtered and is sometimes stored in big towers.
- Where does the water go when it goes down the drain? It goes either to a Sewage Treatment Plant, Septic System which both filter out dirty things in different ways. Waste going directly into the rivers without treatment is bad!
- What is an aquifer? Show how underground lakes and rivers are similar to the lakes and rivers we see all the time, but how they move more slowly when they are underground.
- Assign each student one of the following river-related creatures and have him or her look up a few interesting facts to share with the rest of the class. Use this as a springboard to discuss how biodiversity makes life healthier for all plants and animals. Insects: beetles, caddisflies, stoneflies, mayflies, hellgrammites, dragonflies, true flies, damselflies, walking sticks, grasshoppers, cockroaches, cicadas, aphids, lacewings, antlions, scorpionflies, bees, butterflies. Crustaceans: crayfish, scuds, aquatic sow bugs. Annelids: acquatic worms, planaria, leeches. Mollusks: clams, mussels, snails, limpets.
- Do a project with The Leaf Pack Network (LPN), a network of teachers and students investigating their local stream ecosystems. The experiment "involves creating an artificial leaf pack, placing it in a stream for three to four weeks, examining the packs in the classroom and discovering the different types of aquatic insects that are used as indicators of stream health." For more in information: http://www.stroudcenter.org/lpn/index.htm
- Explore the issue of pollution on the Mississippi and the phenomenon of the "dead zone" in the Gulf of Mexico. Who are the biggest contributors of pollution and what is being done to help clean it up?

ADDITIONAL REFERENCES:

Check our website online to view the most up-to-date resource list.

Books and Websites:

Minn of the Mississippi, by Holling C. Holling Paddle-to-the-Sea, by Holling C. Holling A Drop Of Water, by Walter Wick The Magic School Bus Wet All Over: A Book About The Water Cycle, by Pat Relf Where the River Begins, by Thomas Locker A Drop Around the World, by Barbara Shaw McKinney, Michael S. Maydak

http://www.riverwaterworks.org http://www.projectwet.org http://www.projectwild.org