River Research, Education and Adventure CHarters
Special Programs

Participants board the Queen City Princess for a two to four hour trip on the Ohio River, where they rotate through a variety of activities to obtain a "snap-shot" of water quality. The cruise may include some or all of the activities outlined below, depending on the length of the cruise and the ages of participants.

Water Sampling
Students will collect water samples from the side of the boat or boat dock. Students are given the opportunity to collect water samples with Kemmerer samplers and buckets. Students will also collect water in sterile containers for *E. coli* testing.

Students will visually check the clarity, temperature and odor of the samples while discussing their observations at the sampling site.

Ohio River Scavenger Hunt
It is very important that our students know where they are on the river and understand the landmarks and infrastructure that contribute to the daily function of our communities. This activity introduces students to these concepts and allows them to make important observations regarding how the land is being used around the water, and how that affects water quality. This activity also allows students to observe animals and their habitats in and around the water.

Students will compete in small teams to spot items on land or in the water. Items will include landmarks such as buildings, parks, and bridges; aquatic and land-based flora and fauna; and sources of pollution, including combined sewer overflows (CSO's), storm water outfalls, and non-point sources stemming from land-use.

Rate Your River
Students will give the river a "health check-up" by measuring the parameters below on the water samples. They will also learn how these parameters might affect fish and macroinvertebrates living in the water, as well as their own health.

Parameters Measured:

- Dissolved Oxygen (students will measure using Chemetrics colorimetric ampoules)
- pH (students will measure using La Motte colorimentric kits)
- Temperature (students will measure using thermometer)
- *E. coli* (Students will count *E. coli* colonies on Coliscan culture plates from a previous day and will prepare new plates using their water samples. Results from their samples will be emailed the next day.

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Go Fish!
This activity allows students to learn about fish anatomy and how some characteristics of Ohio River fish have allowed them to adapt to the river environment.

Students will measure the turbidity (or clarity) of their Ohio River water sample using small plastic tubes and printed secchi disks. Students will then study preserved fish specimens from the Ohio River. They will learn to identify parts of the fish, while learning about anatomical features or behaviors that allow certain species to tolerate high levels of suspended sediment in the water.

Planktomania
Students will conduct a plankton tow and study both algae and zooplankton from the river. They will also learn how plankton can be used as a water quality indicator.

Counting Critters
Students will scrub Hester-Dendy samplers taken from our sample site and sort through leaf litter and other debris to search for river macroinvertebrates. The students will identify the macroinvertebrates they find and complete a Pollution Tolerance Index (PTI) for the Ohio River.

Fees
The regular fee for this program ranges from $10 - $15 per participant, depending on the length of the program.

Please keep in mind that significant discounts are available for schools with 25% or more of students on free and reduced lunch programs, or groups that work with underserved children. We are happy to work with your group as much as we can to keep our rates affordable. Please contact Heather Mayfield at 513-231-7719, or at hmayfield@orsanco.org for more information about pricing options.

Payment can be submitted the day of the voyage or FORE can invoice your group after the trip. Checks should be made out to the Foundation for Ohio River Education.

Please contact Heather Mayfield at 513-231-7719, or at hmayfield@orsanco.org for more information.