4-H EARTH SCIENCES: DISCOVER THE RIVER

TERMS AND CONDITIONS

Posters must be displayed horizontally, sized 22" x 28", mounted on a firm backing (foam core board or other), and covered in clear plastic or other transparent material. Refer to 4-H Poster Guidelines.

EXHIBITS

Beginner Division

Level A Grade 3 – 5 Choose one of the following for an exhibit

A). Prepare an exhibit on the water quality of a stream or pond.
Make a tool to investigate the underwater world of a stream. Exhibit a scientific notebook with the tool you make and use. Record your findings on 12 occasions from different parts of the creek. The types of organisms living in the water will help you determine the water quality.

B). Prepare an exhibit on track identification.
Prepare plaster tracks of at least 3 different types of animals and/or birds. Label tracks correctly giving the common name, scientific name and the type of area where tracks were found. Display neatly in container or on exhibit board no larger than 2 ft. by 2 ft.

C). Prepare an exhibit on fish.
Design and construct a scale model of a fish using clay, paper mache, or a material of your choice. Correctly label the following external parts of the fish: dorsal fin, caudal fin, anal fin, pectoral fin, pelvic fin, gill cover, eye and lateral line.

Intermediate Division

Grade 6 – Choose one of the following for an exhibit.

A). Water Quality - Prepare a poster display or notebook to report your findings from one of the following activities:
- Build your own water quality testing equipment (a Riverwatch Activity) and conduct readings at one site on several dates or compare various sites for turbidity, pH and temperature.
- Conduct a healthy stream evaluation (a Riverwatch Activity).

B). What River? - Prepare a poster, diorama, and notebook or report to display findings on one of the following:
- Research the existence of the Wabash River in Indiana through use of books, interviews, Internet, etc.
- Find out where the river begins and ends, the counties in Indiana that the river passes through and where the name of the river originated.

C). Boat Safety – Develop a poster, video or safety notebook on boating safety.
- Attend a boating safety course.
- Gather information through research.

D). What is Your Watershed Address? – Display one of the following activities:
- Learn about the watershed in which your school resides by doing the Rainy Day Hike activity from Project Wet.
- Make a model of a watershed using the Branching Out activity from Project Wet.

E). Community Activity – Make a video or poster of participating in a cleanup at a park or location near the river.

Grade 7 – Choose one of the following for an exhibit.

A). Plant Identification – prepare a poster or notebook on one of the following:
- Collect and identify different leaves, berries, nuts, and flowers from the plants and trees found along the river.
- Take pictures of different plants and trees found along the river and identify.
- Compare the different plants and trees found in at least two different seasons.
- Research and explain the role plants play in water pollution.

B). Animal Identification – prepare a poster, display or notebook to report your findings on one of the following: Learn to identify animals by their tracks. Take a walk along the river taking photos of the various tracks found or do plaster casts of the tracks.
- Research animals that traditionally have been found along the river and learn how invasive animals have affected the existence of the native animals

C). Safety on Moving Water – choose one of the following activities to display:
- Develop a Public Service Announcement for boating safety including proper tips for boating.
- Add additional information about when conditions are safe to be on the river to your boat safety notebook that you began last year.

D). History of River Uses – exhibit a model, poster or report based on one of the following activities:
- Research the Wabash Erie Canal
- Develop a timeline demonstrating the different transportation and industrial uses that developed on the river
- Research the different water craft that have utilized the Wabash River and build a model of a water craft and report what it was used for.
- Evaluate the advantages and disadvantages of utilizing the river for transportation.
- Show how the use of the river has affected your community

E). Community Service – display a poster, video or notebook that shows pictures of a tree planting and an explanation of how trees benefit the water quality and life along the river.

Grade 8 – Choose one of the following for an exhibit.

A). Global Positioning System – prepare a poster or report on the purpose of GPS and your experience in using it.

B). Life Along the River – do one of the following activities.
- Prepare a poster or display showing the forts and battles that occurred along the Wabash River in Indiana or the Indian tribes that lived along the river.
- Interview a historian or individual who remembers historical uses, historical events or historical sites along the river. Prepare a display or report with pictures of what you have learned.
- Build a model of something representing the "booming" days of the river and include a short explanation of the model.

C). Safety – do one of the following activities to exhibit.
- Develop a public service announcement on the proper procedures for water rescue in calm, rough and flooding water.
- Develop a pamphlet on water rescue

D). Water Quality – prepare a poster, video or display on one of the following:
- Learn about the different types of pollution and causes (non-point source and point source) and collect pictures that demonstrate.
- Learn the 7 principles of "Leave No Trace"
- Visit a water treatment facility and tell what you learned.
- Complete the Sum of the Parts activity from Project Wet.
- Do the Role of Plants in Water Filtration Experiment and report on it.
- Prepare a ground water model and display an explanation of it.

E). Choose any other options.

Advanced Division

Grades 9 – 12

Exhibits in this level can be posters, notebook reports, videotapes, or educational displays. Choose the exhibit method which best represents your work. Choose a different option each year, or work multiple years on the same option for in-depth efforts. For those who choose to work on an option more than one year, you will need to include work from previous years.

1. Research early exploration of the Wabash River. Include what the explorers did to keep themselves safe, and possibly towns (past and present), historical sites, and other notes of interest. Use charts and maps to develop your exhibit, which might be a model, diorama, educational display or written report.

2. Explore the various types of transportation historically used on the river and along the river corridor (canals, roads, boats, railroad, ferry, etc.). You may also include how the river might be an economic barrier and how people crossed the river. Include elements of safety related to this topic, or the absence of safety.

3. Learn about one or more of the following historical events along the Wabash River: early French trading, Revolutionary War, Underground Railroad, George Rogers Clark, Tippecanoe, Harrison, Tecumseh, Chautauqua events, and other areas of historical interest to you.

4. Explore how the Wabash River is used today. Include recreation sites, industry, tourism, fishing, etc. Include how the water quality affects these activities, and safety issues for each area.

5. Using topographical maps, Global Positioning System, and other resources, create a watershed, mark the flood plains, or identify the stream order related to the Wabash River. Identify areas of safety concern.

6. Study the quality of the Wabash River water, including but not limited to nitrates (keep a log of the nitrate levels), clarity, oxygen content, steps from polluted water to drinking water, macro invertebrate life, acid rain, pollution content, etc. Discuss aspects of safety related to water quality.

7. Research government programs affecting the Wabash River and how land use issues impact the river and the communities adjacent to the river. Use FSA, SWCD, NRCS, IDEM, IDNR and the Wabash Heritage Corridor Commission.

8. Design and develop an outdoor lab with various experiments including, but not limited to wildlife observation, tree identification, plants (including edibles), a log of seasonal changes affecting the river, nature photography (using trail cameras), etc.

9. Learn about careers associated with the Wabash River, and interview persons currently employed in an area of work dealing with the river. These might include ecologists, conservationists, biologists, etc.