

This book belongs to:

# Port of Pittsburgh Logbook



## RiverWorks Discovery

A Journey of Exploration and Imagination on  
America's Waterways™

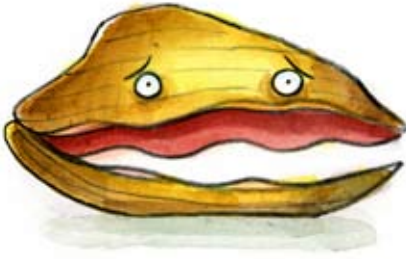


A National Outreach Program of the

**NATIONAL MISSISSIPPI RIVER MUSEUM & AQUARIUM**

IN ASSOCIATION WITH THE SMITHSONIAN INSTITUTION

Pilots and Captains on boats and ships keep a log, or an account of their journey.



**Make a logbook entry for your visit today.**

Name:

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Location:

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Date:

Day:

Time:

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Weather conditions:

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Observations:

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Climb into the wheelhouse of the motor vessel **RiverWorks Discovery** and travel Pittsburgh's three rivers to learn about the importance of healthy, multi-use waterways. Battle invasive species, get a birds-eye view of the watershed, follow the lines of connection from raw materials to finished product, join a towboat crew or take a ride on RiverQuest EXPLORER - the nation's first green education passenger vessel!

Travel along as I share some of the reasons that make Pittsburgh's location at the confluence of three great rivers so special!



# River of Discovery

The first people to encounter the forks of the Ohio River were the First Nations tribes. These early Native American tribes lived in temporary settlements near where the three rivers met. They traveled and traded on the Ohio, Monongahela and Allegheny Rivers for thousands of years before the arrival of the first Europeans.



The first European to claim discovery of the Ohio River was French Explorer Robert LaSalle. In 1669, LaSalle and his party traveled overland from Lake Ontario and found a river they believed to be the Ohio. Unfortunately, a fire destroyed LaSalle's journals and maps, so he was unable to prove his claim.

While other Europeans explored the rivers, it was the frontiersmen who opened the river valley to settlers. These brave frontiersmen had to be constantly on the alert for attacks from wild animals, unfriendly natives and river pirates.

One of the most famous frontiersmen to explore the Ohio River Valley was Davy Crockett. Crockett had a reputation as an excellent marksman and Indian fighter but it was his skill as storyteller that established him as one of the first folk heroes of the young United States.



**Davey Crockett**

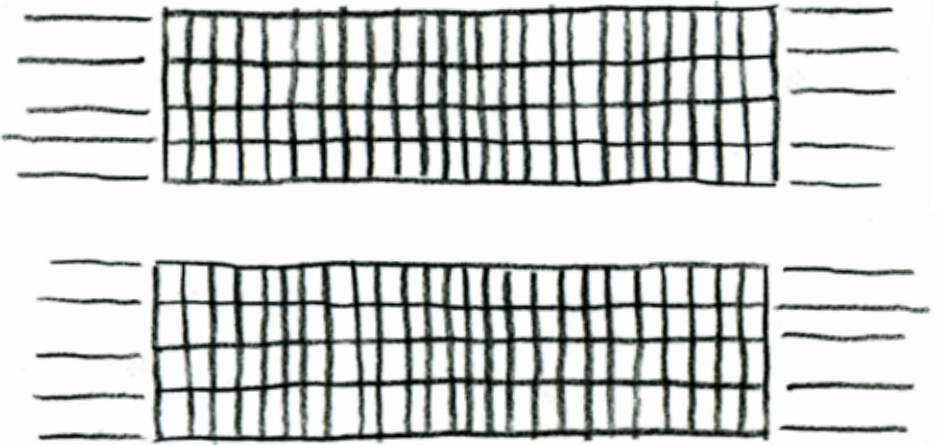
## River of Trade

French and British merchants were the first Europeans to establish trading posts along Pittsburgh's three rivers. Animal furs were traded for European goods and used as a form of money. Items were often priced by the size, type and number of fur pelts.

Indian wampum beads were also traded and used as money. White wampum beads were carved from whelk shells. Purple wampum beads were less common and therefore more valuable. Making wampum took a lot of time and skill. To the native people, items made from wampum were symbols of wealth and authority.

European traders soon demanded wampum in exchange for goods and then traded it back to the Indians for furs. Traders supplied natives with metal tools to produce wampum faster. Soon, the market was flooded and wampum lost its value.

Use a pen, pencil or crayon to create your own wampum belt design. Here is an example to get you started.



# River of History

Pittsburgh's position at the fork of three rivers has shaped its place in history. As a young colonel, George Washington understood that whoever commanded the forks of the Ohio controlled access to the nation's interior. He observed, "nature has well contrived this place," and noted that the forks of the Ohio were "extremely well situated for a fort, having command of both rivers."

Washington urged the British to build a fort in this location. In response, the British sent a group of Virginia militiamen to build Fort Prince George. French troops soon arrived and captured the fort before it was completed renaming it Fort Duquesne.



**Fort Duquesne**



Did you know the fort built at the Forks of the Ohio changed possession five times over the course of its history? Visit Point State Park to see the outlines and remains of two of the oldest structures in Pittsburgh's history – Fort Pitt and Fort Duquesne.

**Lewis and Clark:** The Lewis and Clark Expedition began in 1803 when Captain Meriwether Lewis arrived in Pittsburgh to oversee the construction of a fifty-five foot keelboat. Built on the Monongahela River, the keelboat carried twelve to fourteen tons of cargo. It was equipped with twenty-two oars and had a mast and sail.

Nicknamed the Corps of Discovery, the main goal of the expedition was to find a water route to the Pacific Ocean for the purpose of trade. Also of great importance was to take an inventory of the plants, animals, land and native people they encountered along the way.

*August 31, 1803. Lewis writes in his journal;  
“Left Pittsburgh this day at 11 ock with a party  
of 11 hands 7 of which are soldiers, a pilot and  
three young men on trial they havin proposed to  
go with me throughout the voyage.”*

**Corps of Discovery by the numbers:**

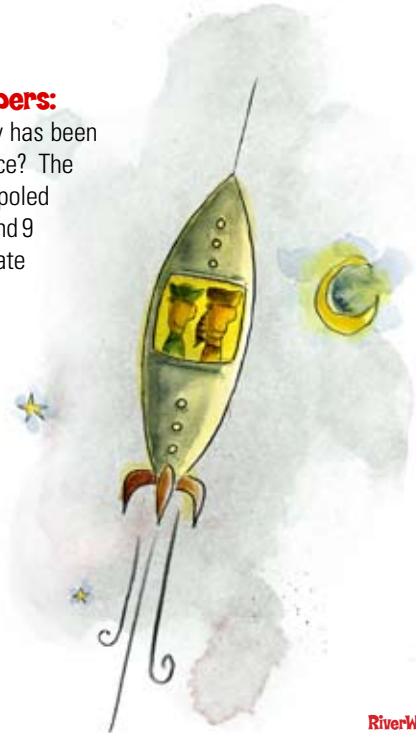
Did you know that the Corps of Discovery has been compared to today's exploration of space? The Corps of Discovery walked, rode, paddled, poled and sailed for a total of 2 years, 4 months and 9 days. Using the numbers provided, estimate the length of their remarkable journey.

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During their expedition, the Corps used a total of 25 boats. The largest was the 55-ft long keelboat. When the keelboat had trouble in shallow water, the Corps added two pirogues. Pirogues are flat-bottomed boats that are square at the rear. Twenty-two dugout canoes made up the rest of the fleet.



Draw a line from each boat to the type of water it is best suited to travel on.



Keelboat

best in slower-moving shallow water



Dugout Canoe

best in rapid-moving water



Pirogues

best in slower-moving deep water

## Gateway to the West

With the advent of boatbuilding, Pittsburgh became known as the “Gateway to the West”. Flatboats ran from Pittsburgh to New Orleans stopping to sell their goods or services as they traveled downstream. Since flatboats could not travel upstream, they were built to be disposable. Upon reaching their destination they were disassembled and used or sold for firewood.

Travel by flatboat could be very dangerous. The Ohio River was plagued with pirates. Swift currents caused by high water often crashed flatboats against rocks and snags. The biggest danger of all was fire.

Despite these dangers, many families made their way down the Ohio River in search of a new life. One such family was the Dewees who traveled by wagon to Pittsburgh. There, they obtained a flatboat and continued west on the Ohio River. In Mary Dewees’ writing, she describes their river adventure:

*October, 19th 1787*

*The water very low, I am much afraid we shall have a tedious passage our boat is 40 foot long our room 16 by 12 with a Comfortable fireplace, our Bed room portioned off with blankets, and far preferable to the Cabbins we met with after we crossd the Mountains, we are clear of fleas which I assure you is a great relief fore we were almost devoured when on shore.*

*- Mary Dewees*

During the day, flatboaters floated downstream on the river. At night, they would pull up on the banks, or they would continue on the river in the dark. Children helped with the chores. Even cats and dogs had important jobs to do. Cats caught rats, and a good watchdog could help hunt.

## Traveling by Flatboat

Imagine yourself on a flatboat 200 years ago. Everything you need for a new life is aboard. You have some livestock, such as a cow, a horse, a mule, a pig and chickens. You will need your equipment for farming, tools, pots and pans, candles, food for people and your animals, blankets, clothing, weapons for hunting and protection and a host of other things. You will need a place to sleep and to cook your meals.

Estimate the square footage of a flatboat that is 40 feet by 12 feet (40' x 12'). Pace it off in the area around you, one adult pace is equal to about three feet.

Now imagine everything from your house fitting in the same space. Remember a space for your car.



## River of Senses

Imagine you are living 200 years ago and your family has chosen to move to the wilderness to start their own farm. Remember that living in the wilderness means no cars, buses or electricity. Take a few minutes to look at the land and the river around you. How would it be different? Close your eyes and listen. What sounds can you hear? Become aware of the scents surrounding you. What might a traveler experienced from long ago? What would be same as today? What would be different?

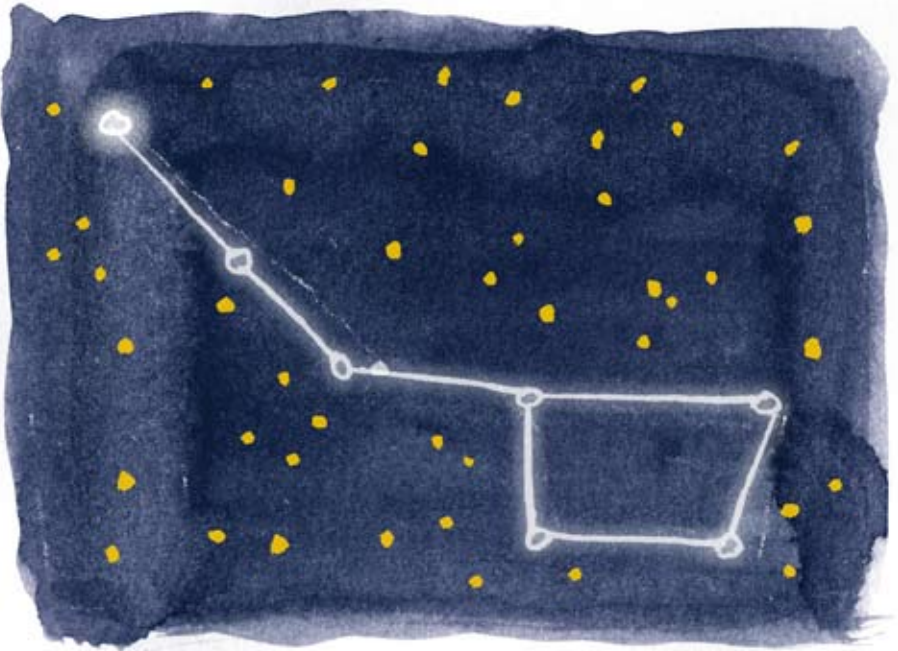
In the boxes, draw a picture of then and now at the river.



## River of Freedom

A river journey means different things to different people. To some it meant freedom. Pittsburgh was the most active station on the Underground Railroad in Pennsylvania due to its location on three rivers. The Monongahela River was a key spot for those seeking freedom from the south. People continuing north or west from Pittsburgh used the Allegheny and the Ohio Rivers.

Slaves were not allowed to read or write. However, they knew about their environment. Parents taught their children how to find the North Star in the night sky. The North Star is part of a constellation that looks like a little dipper or a drinking gourd.



The song **“Follow the Drinking Gourd”** is attributed to a man named Peg Leg Joe who worked as a traveling carpenter in the South. The song contains hidden information that helped slaves escape on the Underground Railroad.

The song directs the escapee to leave from Mobile, Alabama in the early spring and follow the banks of the Tombigbee River. The song’s secret code directs those seeking freedom to cross between two hills to connect to the “other river” just north of the Tombigbee.

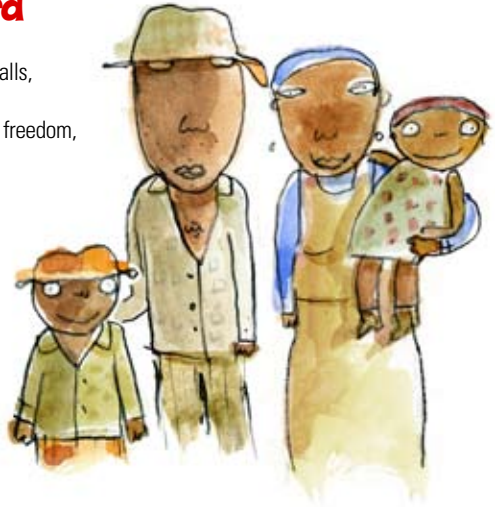
# Follow the Drinking Gourd

When the sun comes back and the first quail calls,  
Follow the drinking gourd.  
For the old man is a-waiting for to carry you to freedom,  
If you follow the drinking gourd.

The riverbank makes a very good road,  
The dead trees show you the way,  
Left foot, peg foot, traveling on  
Follow the drinking gourd.

The river ends between two hills,  
Follow the drinking gourd.  
There's another river on the other side,  
Follow the drinking gourd.

Where the great big river meets the little river,  
Follow the Drinking Gourd.  
For the old man is a-waiting to carry you to freedom  
If you follow the Drinking Gourd.



**Trace the route to freedom on the map below.**





## Steamboats:

The first steamboat to navigate western waters was built in 1811 by the inventor Robert Fulton. Named the *New Orleans*, the boat traveled from Pittsburgh down the Ohio River to the Mississippi River and on to the Port of New Orleans. The maiden voyage took a total of 82 days to complete.

Sailing under the light of the Great Comet of 1811, the journey of the *New Orleans* was far from uneventful! Shortly after surviving the treacherous 26-foot drop in river elevation at Falls of the Ohio, the boat was caught in a series of the New Madrid earthquakes. The powerful quakes caused submerged trees to rise in the waters, making navigation nearly impossible.

The *New Orleans* survived the perilous journey and made regular trips between Natchez and New Orleans until she sank in 1814.

**Packet Boats:** The most common steamboat on the river was the packet boat. They carried crops and other goods up and down the rivers. Packet boats also carried people. On many of the boats, wealthier passengers enjoyed the first class deck. Those who could not afford first class traveled in cramped conditions in the lower decks with the cows, pigs and horses.

Roustabouts were unskilled laborers who loaded and unloaded cargo into the packet boats. Work on the rivers was hard and dangerous. Many were exposed to hazards including falling overboard into the frigid and unforgiving waters, or being crushed by tons of shifting cargo.



**Snag Boats:** Snags caused many problems for boats on the river. A snag is a sunken tree, stump, or boat wreck that is partly or completely submerged in the water. Special steamboats used a boom and a grapple to remove snags from the river making it safe for travel.



**Did you know that steamboats had an average lifespan of only three years?**

While snag boats removed some of the dangers of steamboat travel, many others still existed. The biggest danger facing steamboats were boiler explosions. Boilers needed to be carefully watched and maintained. If the pressure became too high, it resulted in a spectacular and deadly explosion.

**Showboats:** The first showboat was built in Pittsburgh in 1831 for the Chapman family of English actors. Named the *Floating Theatre*, it had a stage, a pit in the middle and a seating gallery. The Chapman's floated it down the Ohio and Mississippi rivers. At the end of their journey to New Orleans, they sold the boat for firewood and returned to Pittsburgh.



# River of Change

**Canals:** Pittsburgh's earliest canals were human-made water highways constructed for the purpose of trade. Over 1,300 miles of canals were dug in Pennsylvania linking cities, villages, factories, mines and farms. They were hand dug by men whose only tools were picks, shovels and wheelbarrows. Hard work, poor living conditions and disease took the lives of many of these laborers.

**Towpath Canals:** Some of the earliest canals were called towpath canals. These canals had a trail, called a towpath, built alongside the canal for mules or horses to walk. Long lines connected the animals to the boats allowing them to pull the boats along the canal. These hardworking animals traveled at a rate of two to four miles per hour.



## Vessel Timeline

1600 Dugout Canoes



1700 Flatboats



1800 Steamboats



**Locks and Dams:** Locks and dams are human-made structures that keep our rivers navigable for commerce. The first federally built navigation structure on the Ohio River was the Davis Island Lock and Dam in 1885.

Navigation dams are wall-like structures that span the entire width of the river. These dams hold enough water to keep the main channel of the river at a depth of 9 feet - the minimum depth for barge travel.

Locks are enormous chambers built beside the dam that act like elevators by lifting or lowering boats to allow navigation on the river. The water level in the locks is raised or lowered by gravity so boats and barges can travel up and down the river using this “stairway.”

Today, the Port of Pittsburgh services three major rivers, the Allegheny, Monongahela and Ohio –for a total of about 200 miles of river. The Port includes 17 locks and dams that keep the rivers navigable for business.

1. barge entering lock



2. barge in lock



3. barge leaving lock



### Locking Through

Pretend you are a lockmaster lowering the water level in the lock chamber. In these drawings which way is downstream?

1900 Towboats and Barges



2000 Green Towboats and Barges



# Barge Works

Follow the lines of connection to trace the route from the raw material to the finished product.

## Grain



## Coal



## Oil



**Towboat Crew:** Towboats carry a small crew consisting of a captain, pilot, engineer, cook, mates and several deckhands. Each position has important duties and responsibilities. Safety is everyone's concern because the work can be dangerous. Typically, crews work six-hour shifts in good and bad weather for 28 days. Then they have the next 28 days off.

## How Large Is a Barge?



*Each barge is 195 feet long and a typical tow can stretch a quarter of a mile.*

Did you know more than 45,000 jobs in southwestern Pennsylvania depend upon the waterway transportation system, and even MORE when you consider the cargo and raw materials that travel the waterways to reach landlocked businesses?

**Cravel**



**Steel**



**Barges carry road salt to help clear our roads in the winter.  
Draw your own chart below.**



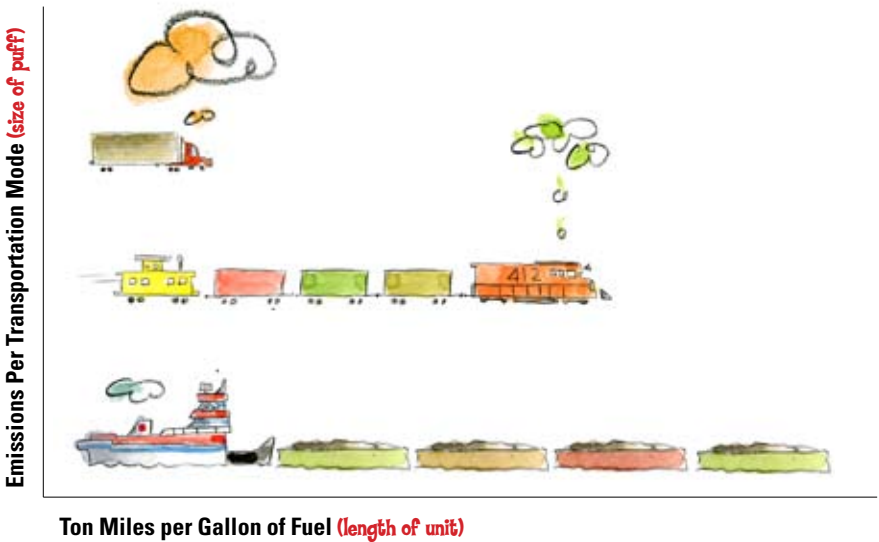
Technology has become increasingly important to the river transportation industry. Computers now control many aspects of barge operations, including navigation, loading and unloading, maintenance, picking up and delivering barges at various locations along a route.



*Imagine the skill needed to steer such a large vessel!*

**Port of Pittsburgh:** The Port of Pittsburgh is an inland port. An inland port is made up of rivers that flow across the land, as opposed to a coastal port located on the ocean. It is served by two major railroads. Truck traffic is carried through the Port area on four major interstate highways. This combination of boat, rail and truck transport converging in one place is called intermodal.

The Port of Pittsburgh is the second largest inland port in the United States! More than 41 million tons of barge cargo travel through the Port of Pittsburgh each year. Shipping by barge is a clean, green way to transport the goods and materials that fuel our nation's economy. Because barges float, they require less fuel to move cargo. One gallon of fuel moves one ton of cargo 576 miles by barge. That same gallon of fuel would move cargo 413 miles by rail and only 155 miles by truck.



Compare the size of the puffs to see how much air emissions each type of transportation makes. Barge transport uses less fuel, produces fewer emissions and reduces air pollution.

Which type of transportation do you think is best for the environment?

## Compare Cargo Capacity



## Equivalent Units



Barge transportation reduces traffic congestion. It would take 216 rail cars pulled by six locomotives or 1,050 semi-trucks to equal the cargo capacity of one fifteen barge tow.

**Barges by the number:** **Imagine** you are the owner of a large widget company. You have 90,000 tons of widgets to move. Two tons is approximately equal to the weight of an average car. Find the right transportation choice for your product.

Number of barges needed: \_\_\_\_\_

Number of semi-trucks needed: \_\_\_\_\_

Number of train cars needed: \_\_\_\_\_

**Whew!** Can you **imagine** how long it would take to get ANYWHERE on the highway if there were no barges?



## River of Recreation

Jet skiing, water skiing, cruises on the Gateway Clipper fleet and the Pittsburgh Water Limo, rides on the Just Ducky Tour boats and the Three Rivers Regatta are just a few of the ways you can recreate on the rivers.

But, all of the action isn't just on the rivers themselves. Point State Park is an urban treasure where visitors can experience the three rivers, enjoy a natural setting, strolling paths, outdoor concerts and festivals while learning about the area's remarkable history.



Or, grab your bicycle and follow the shoreline of the Ohio River as you take a ride on the Underground Railroad Bicycle Route. The route begins at the Heinz History Center where travelers can view an exhibit to learn about the importance of Pittsburgh's rivers to the Underground Railroad.

For those preferring a nature experience, 87 miles of the Allegheny River flows through narrow forest valleys, wilderness islands and broad, rural landscapes rich with history and culture. Recreational opportunities include canoeing, kayaking, rafting, hiking, fishing, birding and camping.

The goal of the Port of Pittsburgh Commission is to promote the commercial use and development of the inland transportation system and to help all the different modes of transportation work well together to support the economy, the environment and the use of the rivers for just plain fun.



The following tips will help keep you safe in and on the water.

### **Boating Safety**

- Check your boat for all required safety equipment.
- Do not overload your boat!
- Wear your life jacket.
- Leave your alcohol behind.
- Check the weather forecast.
- File a float plan with a member of your family or friend.

### **Swimming Safety**

- Never rely on toys such as inner tubes and water wings to stay afloat.
- Do not over-estimate your swimming skills.
- Swim only in designated swimming areas.
- Never swim alone.

## What is a watershed?

A watershed is an area of land where all the small creeks and streams drain into a larger body of water, such as a river or a lake, and eventually into an ocean.

No matter where you live, your home lies within a watershed that is connected to other watersheds.

What you do in your own backyard has an impact on rivers, lakes, streams and wetlands a long way from your home and on the plants and animals that live there. Thus, keeping America's watersheds free from pollution begins with the small creeks and streams in your own neighborhood.



## What is Happening in Your Watershed?

Log on to the Environmental Protection Agency's website, Surf Your Watershed ([www.epa.gov/surf](http://www.epa.gov/surf)). Enter the postal zip code of your home to find cool information about your local watershed, including maps, water quality reports and names of organizations working to keep your water supply safe.

## RiverQuest

One of the best ways to learn about Pittsburgh's three rivers and their watersheds is to take a class onboard RiverQuest EXPLORER ! Each day the boat sails with a full crew of captain, deckhands and educators to explore the environment with students, teachers, community groups and the general public.

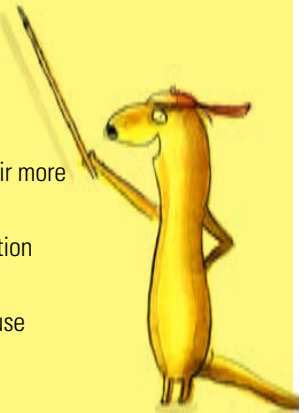
The central focus of the RiverQuest experience is the Ohio River Basin watershed and how human activities affect the freshwater ecology of our rivers and streams. By using real scientific testing equipment, students of all ages morph into scientists as they learn to think about rivers in a whole new way.

You can also learn to be green onboard the RiverQuest EXPLORER - the world's first green boat designed expressly for education. A green boat has many of the same features as a green building with the same goal – to avoid harm to the environment!



## EXPLORER's Cool Green Resource List!

- ✓ A recycled steel hull
- ✓ A hybrid propulsion system that runs on bio-diesel and rechargeable batteries
- ✓ Carpet made from recycled plastic
- ✓ Paints made with fewer harmful chemicals
- ✓ Cabinets made from leftover wheat stalks
- ✓ Fabric heating and air-conditioning ducts that blow air more efficiently
- ✓ Specially coated windows that block ultraviolet radiation so less air conditioning is needed
- ✓ Compact fluorescent light bulbs to reduce electricity use



Some barges and passenger vessels like EXPLORER that use a hybrid engine can run on electricity, diesel fuel or some combination of both. Diesel can be mixed with a special fuel made from recycled food oils. This “bio-diesel” fuel reduces the amount of gaseous and solid pollution that comes from EXPLORER’s engines. Green barges and green boats will help to reduce pollution over the decades to come!

# River of Wildlife

**Birds:** Pittsburgh's three rivers and their watersheds provide vital habitat for many resident as well as migratory species of birds. Migration is the movement of animals, especially birds, from one region to another. Birds migrate to visit habitat with better access to the resources they need during certain times of the year.

Habitat refers to the water, food, shelter and space that birds need for survival and to bear their young. Different species of birds require different kinds of habitats. Some birds live and breed in watery environments such as wetlands, swamps and marshes. Others prefer the drier conditions of forests, meadows, prairies and grasslands.

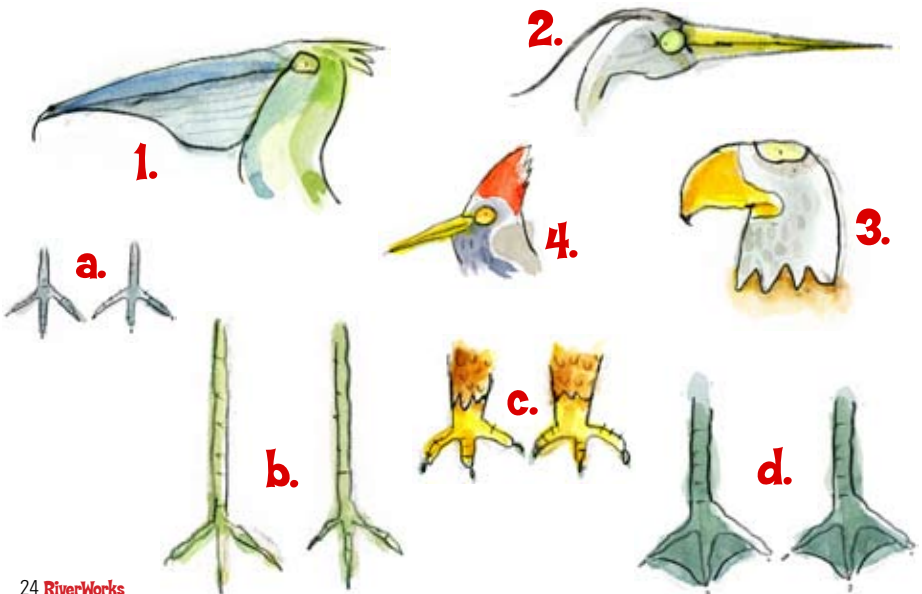
Can you match the description of the food and habitat of birds of the Ohio River Valley with the pictures of their beaks and feet?

**Bird 1:** Wades along riverbanks and marshes looking for fish and frogs to spear and eat.  
Beak number: \_\_\_\_ Feet letter: \_\_\_\_

**Bird 2:** Skims along the river watching for fish to scoop up. It nests on river banks and often floats and paddles on the water. Beak number: \_\_\_\_ Feet letter: \_\_\_\_

**Bird 3:** Nests in trees and clings to tree trunks to dig and eat insects from the bark. Beak number: \_\_\_\_ Feet letter: \_\_\_\_

**Bird 4:** Circles high above the river from its tree nests, watching for small animals to grab and eat. Beak number: \_\_\_\_ Feet letter: \_\_\_\_



**Fish:** River systems form unique habitats for many species of fish. Some fish, such as white bass, walleye and freshwater drum prefer to dart along in the deep water and swift currents in the main river channel. Sunfish, largemouth bass, bluegill and crappie make their home in the shallower and calmer currents of off-channel waters. Off-channel waters include smaller rivers and streams, called tributaries, and backwaters.

Backwaters are the ponds, sloughs and other marshy areas that are created when rivers overflow their banks. Because backwaters are warmer, calmer and have more nutrients, they make ideal nurseries for baby fish.



## Fishing by the Numbers

Before Otter went fishing, he got a license and a book of regulations. He caught a trout, a bass and a walleye. In the regulation book, he read that a trout must be at least 7 inches long, a bass 15 inches and a walleye 18 inches or he would have to release them. When he got out his ruler to measure them, it was divided into centimeters rather than inches. Luckily, he knew that 1 centimeter = .39 inches.

Help Otter figure out if he must release any of his fish.

Trout = 25 centimeters = \_\_\_\_\_ inches    Release? \_\_\_\_\_

Bass = 35 centimeters = \_\_\_\_\_ inches    Release? \_\_\_\_\_

Walleye = 47 centimeters = \_\_\_\_\_ inches    Release? \_\_\_\_\_

## River Invaders

In one way or another, non-native plants and animals find their way into America's rivers. Some of these new plants and animals have become invaders. Sometimes invader species are introduced accidentally to an ecosystem. Sometimes they were brought in on purpose, but have unintended consequences.

Bighead and Silver Carp are fish that are native to China. They were brought to the United States to help clean algae from commercial fishponds. They eventually escaped into our river systems and now compete with native fish and mussels for space, oxygen and food.



Another aquatic river invader is the Zebra Mussel. It was introduced in ballast water from a ship that had been in the ocean. These mussels attach themselves to hard surfaces and reproduce quickly. Colonies of Zebra Mussels now infest our lakes and rivers. They stick to boats, docks, native mussels and each other. They have clogged water systems used in irrigation, power plants and water treatment facilities along the river.



### Zebra Mussels by the

### numbers:

Zebra Mussels can live to be five years old.

A female Zebra Mussel can

produce 40,000 to 1,000,000

eggs per year. How many

eggs might a Zebra Mussel

release over her lifetime?

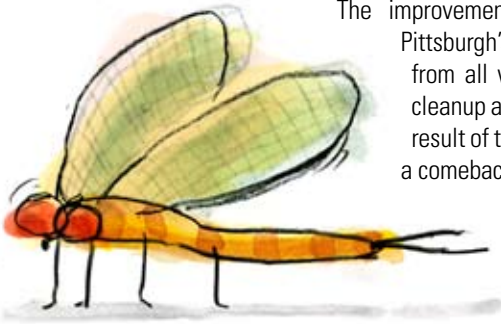
**Minimum** \_\_\_\_\_

**Maximum** \_\_\_\_\_

## Pittsburgh's Green Story

The Ohio, Allegheny and Monongahela Rivers are a stunning example of Pittsburgh's environmental transformation since the passage of the Clean Water Act in 1972. Before the Clean Water Act, heavy industrial use of the rivers had put many of its fish species and other wildlife at risk.

Today, much of the industrial pollution has been cleaned up and the rivers have witnessed a dramatic increase in water quality. Species of fish that had died out decades ago have returned and are thriving. Mayflies, an aquatic insect that can only survive in clean water environments, now return each spring in swarming numbers.



The improvement in water quality is only part of Pittsburgh's green story. Thousands of volunteers from all walks of life have participated in river cleanup and watershed restoration projects. As a result of their hard work, the rivers are witnessing a comeback of wildlife not seen in many years.

River otters, once endangered in the state of Pennsylvania, are now thriving in the Allegheny and Youghiogheny Rivers. Paddlefish, which can grow to lengths of four to seven feet, have been successfully reintroduced in sections of the upper Allegheny River.

Watershed habitat restoration efforts have also resulted in a dramatic increase in plant and animal species diversity. *This increase in diversity is key to ensuring the future health and well-being of Pittsburgh's three rivers in the years to come!*



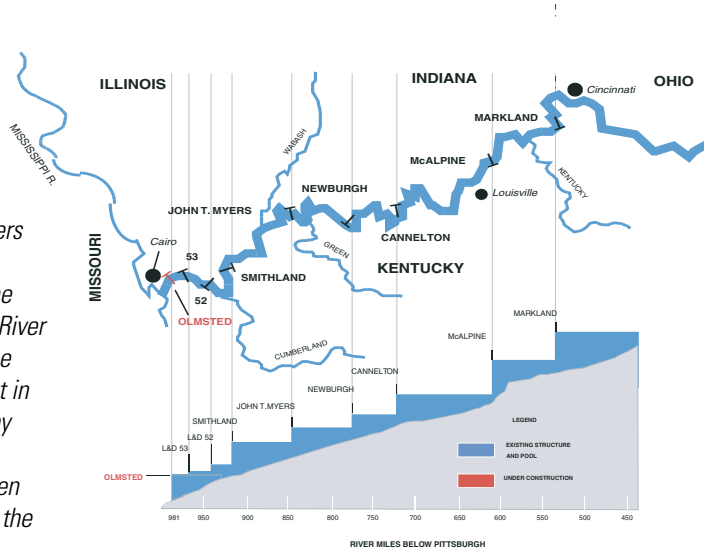
# Pittsburgh's Three Rivers

**Ohio River:** The Ohio River begins in Pittsburgh, Pennsylvania, where the Monongahela and Allegheny Rivers meet. It flows west-southwest for 981 miles, touching six states. Hundreds of rivers, creeks and streams join the Ohio forming its watershed. The river is nationally important for commerce, and internationally significant as a highway for barges transporting products to and from worldwide markets. The Ohio River empties into the Mississippi River at Cairo, Illinois.

**Monongahela River:** The Monongahela River runs north from West Virginia's Monongahela National Forest for 128 miles to Pittsburgh where it joins the Allegheny River to form the Ohio River. The canalized river is navigable for most of its length. Iron, steel and coal are the chief products moved on the river. The Monongahela River was the first river in the United States to be improved for navigation.

**Allegheny River:** The Allegheny River is approximately 325 miles long and flows through the states of New York and Pennsylvania. It drains 11,580 square miles in the northern Allegheny Plateau providing the northeastern most drainage in the watershed of the Mississippi River. Its tributaries reach to within eight miles of Lake Erie in southwestern New York. Eighty-seven miles of the Allegheny River have been designated as part of the Wild and Scenic River System.

*From the headwaters at Pittsburgh, Pennsylvania, to the mouth of the Ohio River at Cairo, Illinois, the river drops 420 feet in elevation. The Army Corps of Engineers operate the nineteen locks and dams on the Ohio River.*



# Kids for Clean Rivers

One person can make a difference. Keep Pittsburgh's three rivers and their watersheds healthy by taking the Kids for Clean Rivers Pledge!

Beginning today, I, \_\_\_\_\_, promise to be a person who makes a difference in my environment by more closely observing the natural world around me. I also promise to protect our waterways by doing at least two of the following actions:

- I will learn about the importance of Pittsburgh's three rivers and their watershed and share my information with others
- I will participate in watershed projects such as river clean-ups and planting trees.
- I will clean up after my pets to prevent soil and water pollution.
- I will help protect wildlife by properly disposing of fishing lines, nets, trash and recyclables.
- I will use less water at home and at school.
- I will do my best to reduce, reuse and recycle.

My Signature \_\_\_\_\_

Today's Date \_\_\_\_\_

Witness' Signature \_\_\_\_\_

**Congratulations! You are a hero on behalf of clean rivers!**



For a free copy of this logbook and other cool stuff, go to

[www.RiverWorksDiscovery.org](http://www.RiverWorksDiscovery.org)  
[www.rivermuseum.com](http://www.rivermuseum.com)

# RiverWorks Discovery

A Journey of Exploration and Imagination  
on America's Waterways™



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For more information contact  
Errin Howard at 513-403-9312  
[errin@riverworksdiscovery.org](mailto:errin@riverworksdiscovery.org)



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