



Junior Ranger Activity Book



Welcome, Junior Ranger!

Being a Junior Ranger is an important job! Together, we can take care of America's national parks. Have fun as you explore and learn about the C&O Canal!



Complete the activities to earn your Junior Ranger badge.

Look for the mule shoe to find activities in the book.



= One activity

Ages 6 and under

5 activities

Ages 7-9

8 activities

Ages 10 and up

10 activities

The C&O Canal tells the special story of early transportation in America, long before there were cars, trains and planes. Did you know mules are an important part of the C&O Canal story? It's true! Mules were the "engine" of the C&O Canal. Please meet Lock and Key, two C&O Canal mules that will help guide you through this book.



Hey, Lock!

Ready to get started, Key?

National Park Service Symbol



The National Park Service's mission is to protect and preserve America's national parks for ALL people to enjoy. Did you know there are more than 400 national parks? Each park is a special place with a different story to tell. Each image in the National Park Service symbol represents a resource that national parks protect and preserve. Match the word on the right to the resource it represents.



plants



animals



water



geology



history

If you were a park ranger, what resource would you like to care for? In which national park would you like to work? _____

The Chesapeake & Ohio Canal

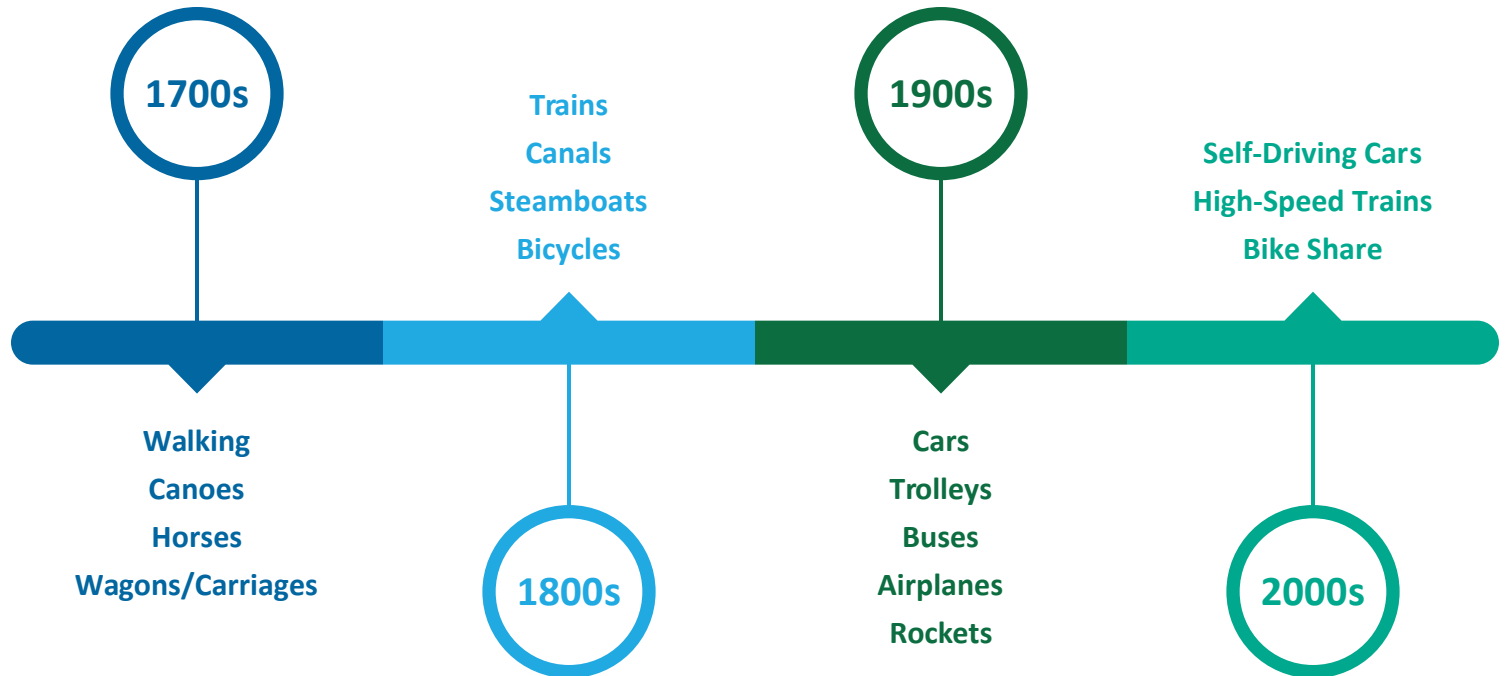
The Chesapeake & Ohio Canal is 184.5 miles long, from Georgetown in Washington, D.C., to Cumberland, Maryland. Hundreds of immigrants helped build the Canal between 1828 and 1850. The C&O Canal served as an important transportation route for 75 years, carrying coal and timber from the mountains to the city. The C&O Canal moved items that were needed to build our young nation.



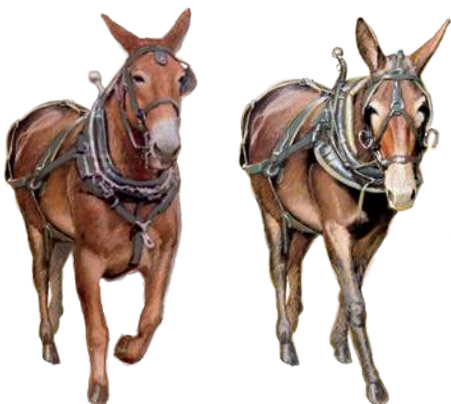
1. Starting in Cumberland, canal boats would be loaded with cargo and begin their week-long journey to Georgetown. How many towns did canal boats pass through along the way? _____
2. After unloading the cargo in Georgetown the boat captain was paid and began the return trip to Cumberland. What direction were boats traveling on the way back to Cumberland? _____
3. The C&O Canal needed a continuous supply of water to operate. What is the name of the river located alongside the canal? _____
4. Hundreds of stone structures were built to make the C&O Canal. They included dams, culverts, locks, aqueducts and one very long tunnel. Watch a short video about the amazing Paw Paw Tunnel on our website at www.nps.gov/choh. Then, draw the location of the tunnel on this map.

Transportation Timeline

Technology has changed how people travel from one place to another. Yet, some transportation has remained popular or necessary throughout the years. For example, did you know canals have been used for over 2,000 years? Take a look below to see how transportation in the United States has changed over time.



Using the timeline, circle the types of transportation you use today. How do you think transportation technology might change in the future? How do you think people will travel from one place to another? _____



Meet the Mules! Mules were the “engines” of the C&O Canal, pulling the canal boats along the 184.5-mile towpath between Cumberland and Washington, D.C. Did you know mules are a hybrid animal? Mules are a blend of two species, a female horse and a male donkey. Find out more interesting facts about mules by watching the “Mule Power” video on the C&O Canal website at www.nps.gov/choh.

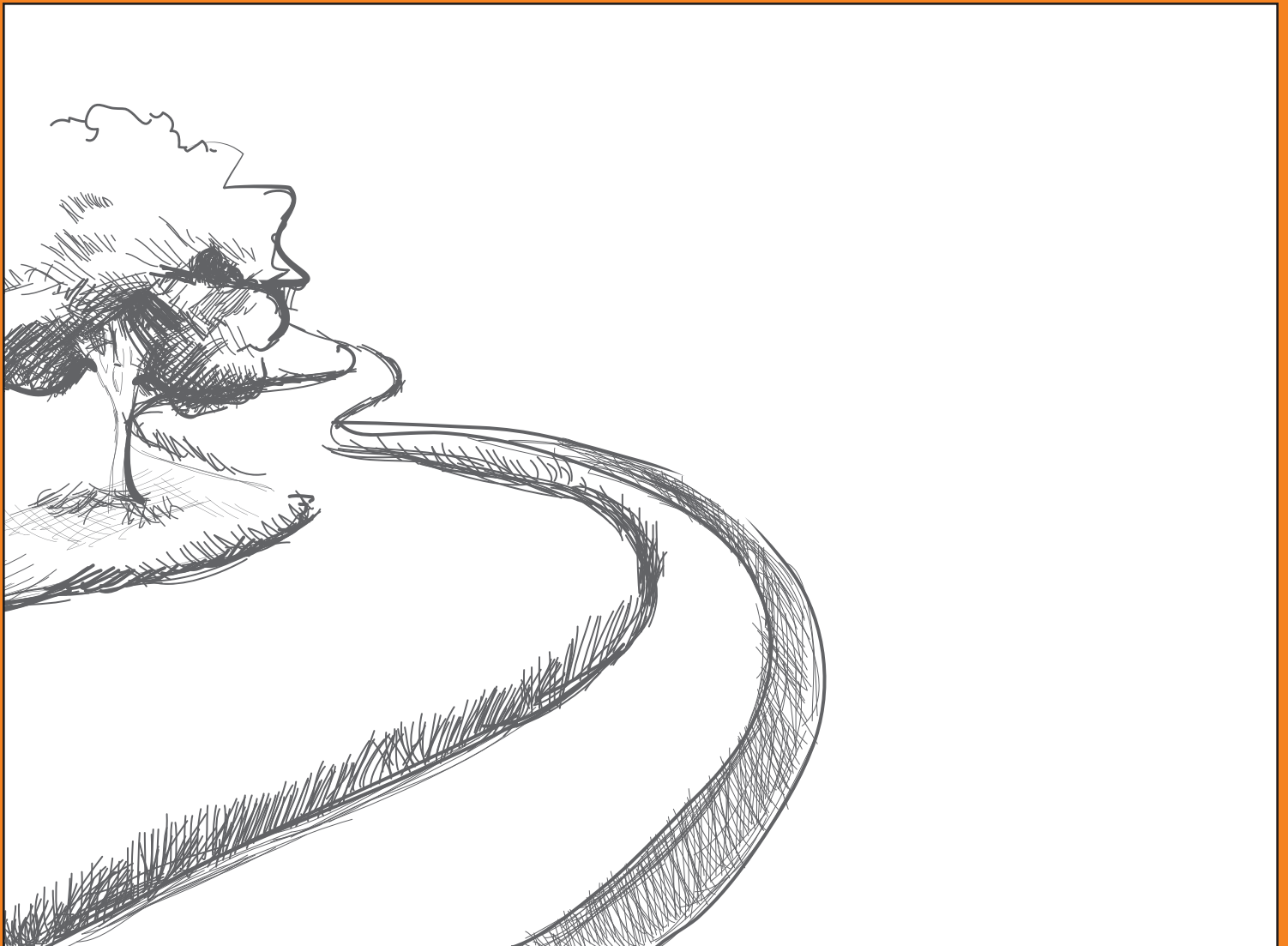
On the Canal



Each canal boat had a captain and crew, about 3-5 people. Often, a family would live and work on a canal boat. Younger children helped with chores around the boat, like cooking, cleaning and laundry. Older children helped by taking care of the mules and learning to steer the boat. Caring for the mules was one of the most important (and fun!) ways children helped. How do you work together with your family? What is your favorite way to help at home?



Canal boat families would sing songs, play instruments and tell stories to pass the time. Use the space below to draw yourself and/or your family on the C&O Canal. Or use the space to write a song or poem about the C&O Canal.



Boats Afloat!



Label the parts of the canal boat using the key.

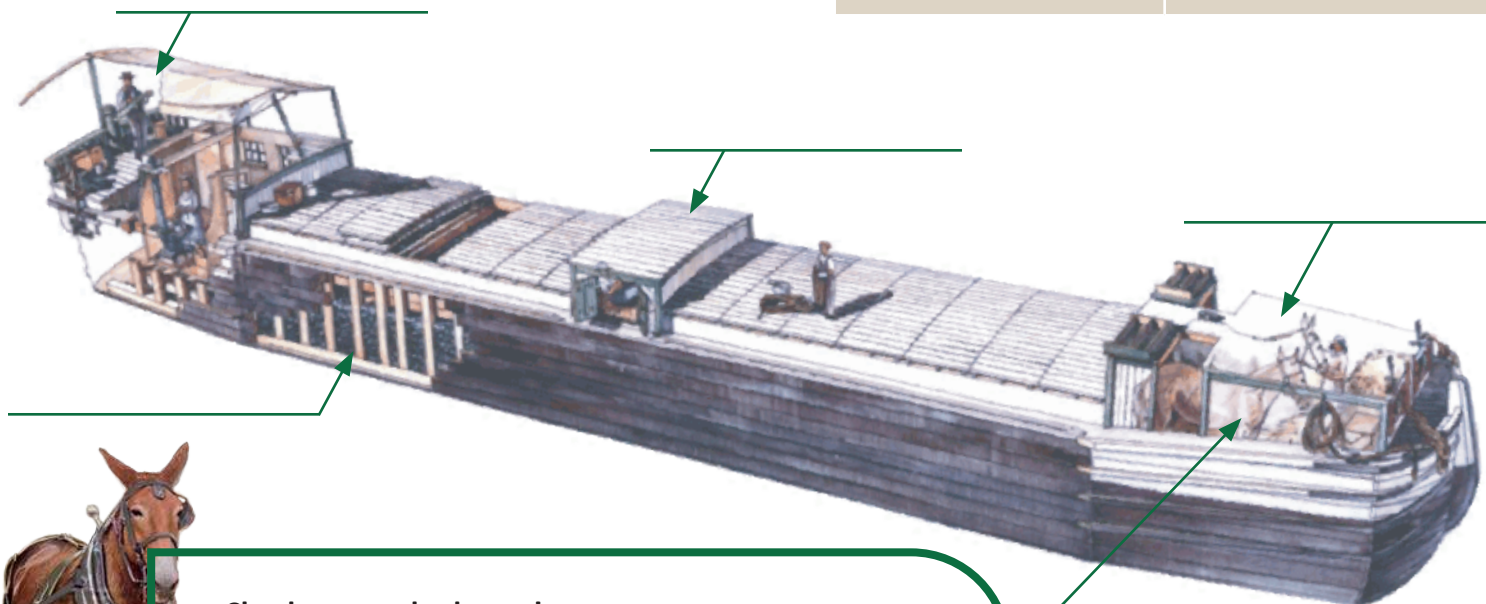
Key:

Family cabin

Hay house

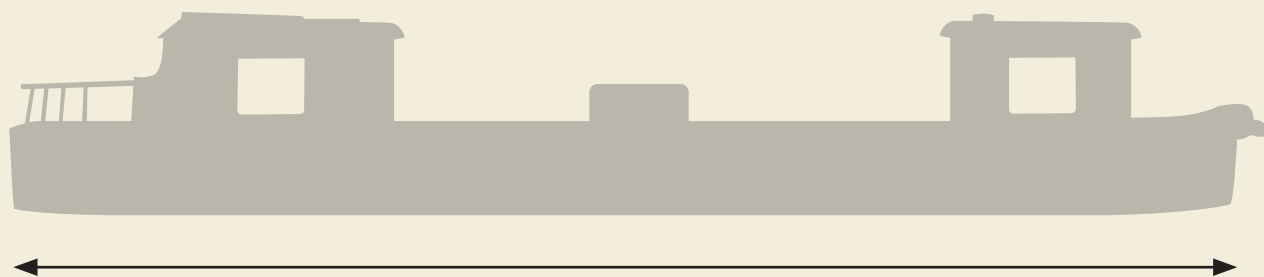
Mule shed

Cargo hold

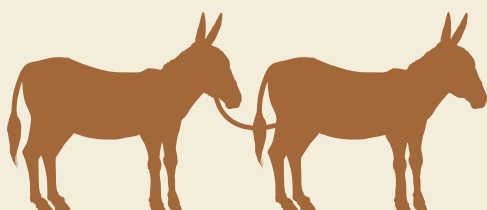


Check out my bedroom!

One pair of mules is inside resting while another pair of mules pulls the boat. Every six hours we switch.



A canal boat measured 95 feet long and 15 feet wide, about the size of two school buses!

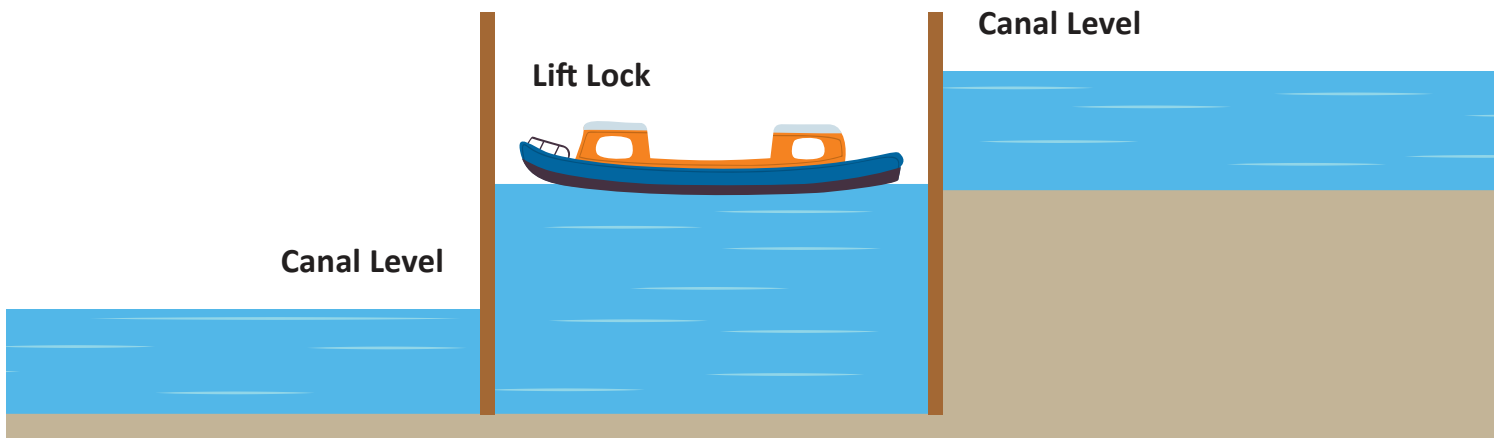


We pull the boat together as a team!

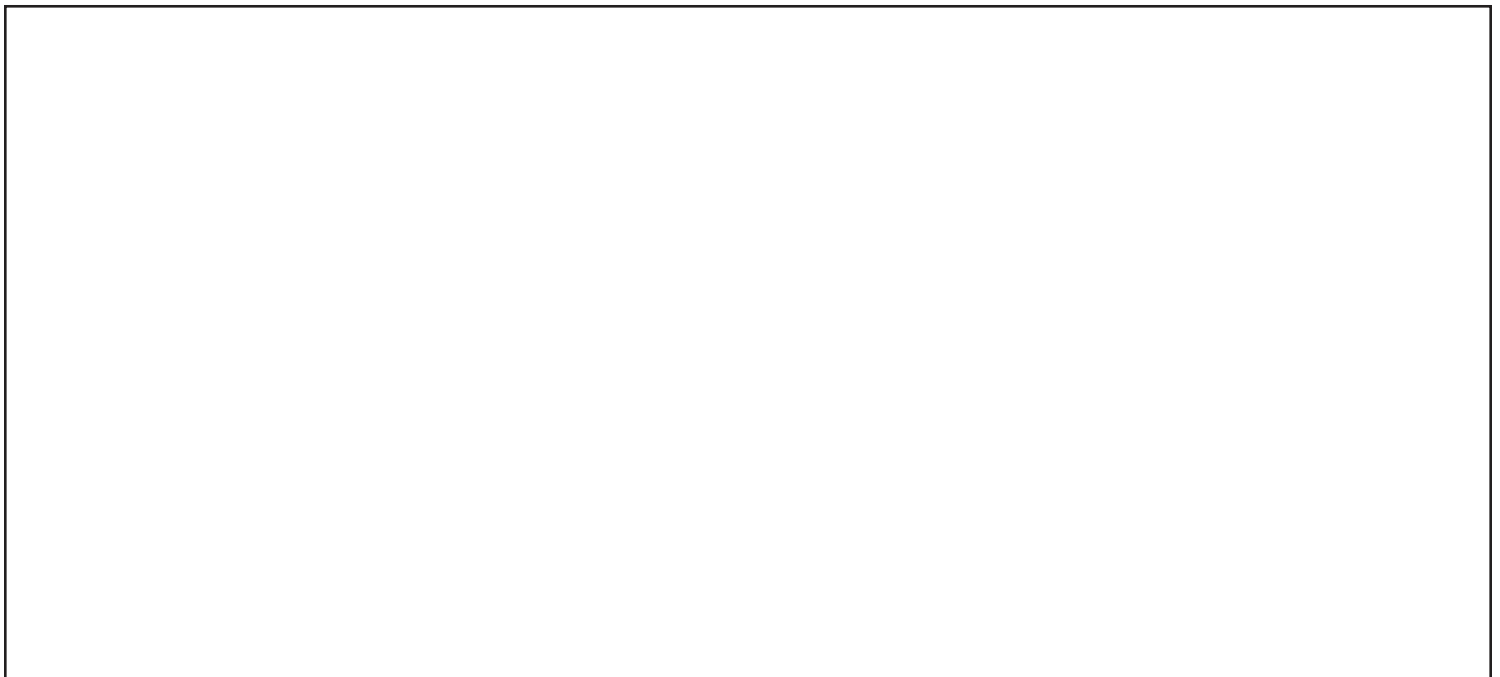
The towpath is narrow, so we walk one behind the other, instead of side by side.

Lift Locks and Lockkeepers

 A lift lock works like a staircase or elevator, raising or lowering a canal boat between two watered sections of the canal. The watered canal and towpath were built to be level or flat, but the surrounding land is full of hills and mountains. From Georgetown (0 feet elevation), to Cumberland (605 feet elevation), a total of 74 lift locks were needed to help canal boats travel the hilly terrain. Located at each lift lock was a small house where the lockkeeper and his family lived. The lockkeeper had a very important job on the C&O Canal, helping the canal boats pass through the lift lock safely and quickly. Hey-yy Lock! Watch a video of a canal boat “locking through” a lift lock at www.nps.gov/choh



 In the 1400s a famous inventor designed the special miter lock gates that would be used on the C&O Canal and many other canals around the world. Can you name the inventor? Use the space below to sketch your best lock gate design or use the space to draw an invention you would like to someday create.



Cargo

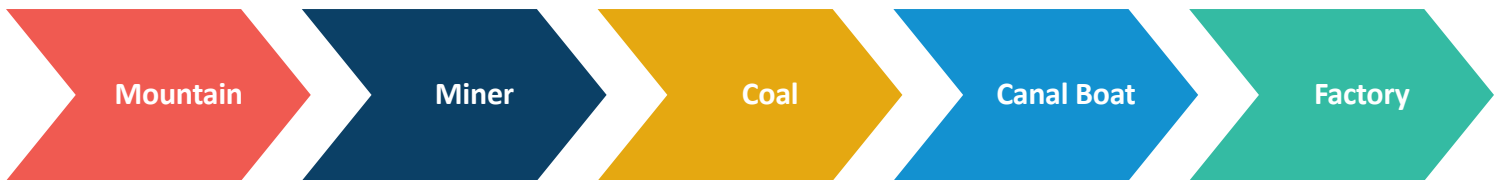
Coal was the most common cargo transported on canal boats. One boat could carry 120 tons of coal – the same as 10 dump trucks!

Did you know? Coal is called “the rock that burns.” It was an important source of energy in the Canal’s time, and it is still used today.



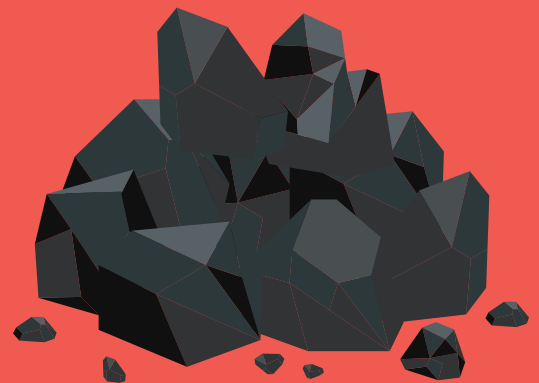
Coal often traveled a long way to its destination. Where does coal come from?

How did coal travel from the mountains to the big city where it was used to heat homes and fuel factories? Follow the steps below and discuss each with a parent, friend or park ranger to learn more about coal’s long journey.



Energy comes from many sources and powers our homes, cars and businesses. There are two types of energy, renewable and nonrenewable. Renewable energy comes from resources that nature will replace, like energy from the sun. Nonrenewable energy comes from limited resources that aren’t replaced, like coal. Complete the activity below by drawing a line to match the types of energy. Then, think about ways you can conserve energy in your home and tell a friend!

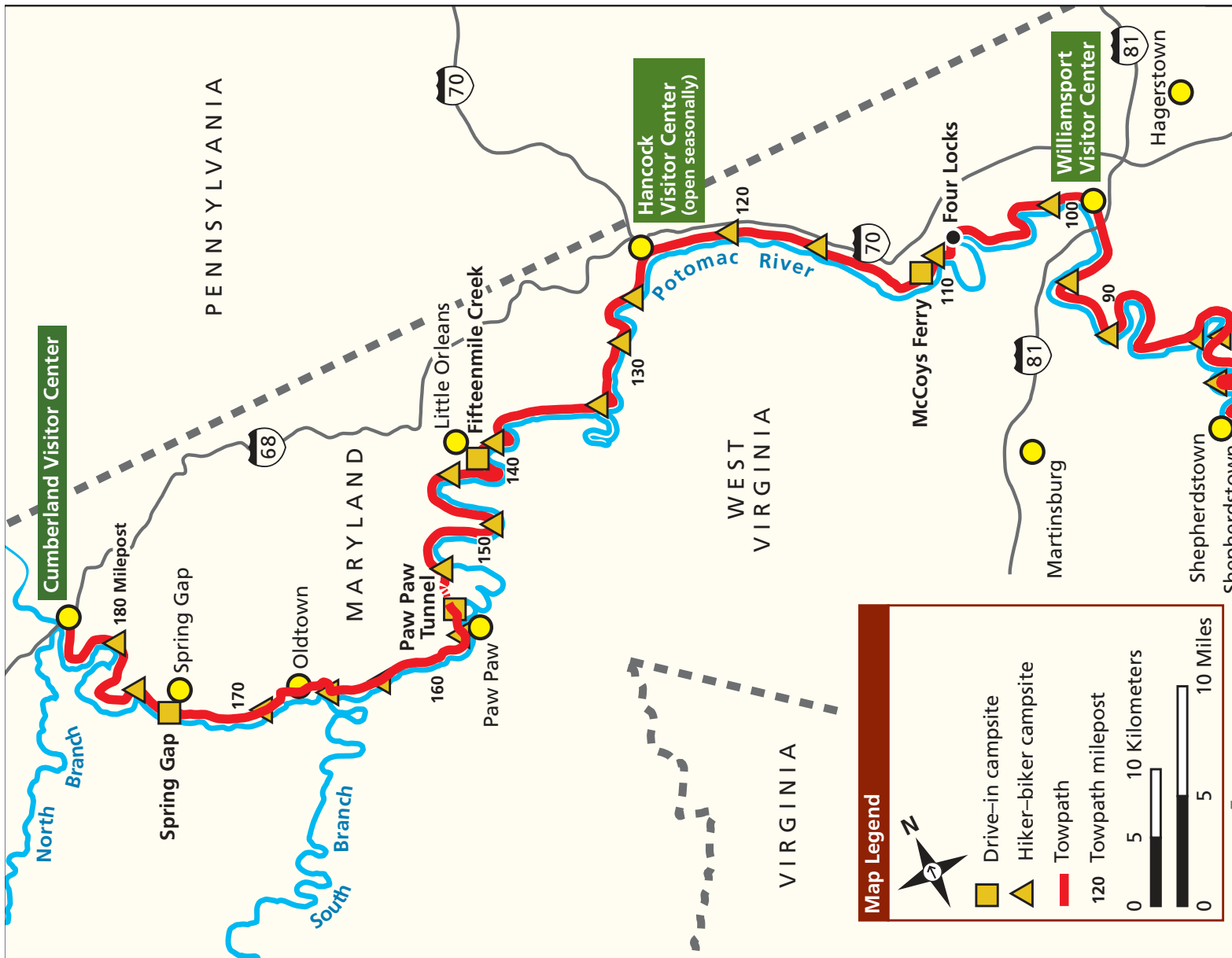
Types of Energy	Sources of Energy
Renewable	Solar (sun)
	Oil
	Natural gas
	Wind
Nonrenewable	Coal
	Hydroelectricity (water)



Plan Your Visit

 In 1971, the C&O Canal was designated as a national park to preserve the history and provide a place for people to enjoy nature and recreation. Each year, millions of visitors come to the C&O Canal to enjoy outdoor activities, like biking, hiking, kayaking, birding and camping. For this activity, you'll plan a visit to the C&O Canal! Check out the park website for planning tips or ask a ranger or parent for help.

1. Circle your start and end points. Mark an "S" by your starting point, and an "E" for your ending point.
2. Measure the distance in towpath miles between your start and end points. How many miles do you plan to travel on the C&O Canal?
3. Will you walk or bike along the towpath? Will you drive by car on the highway?

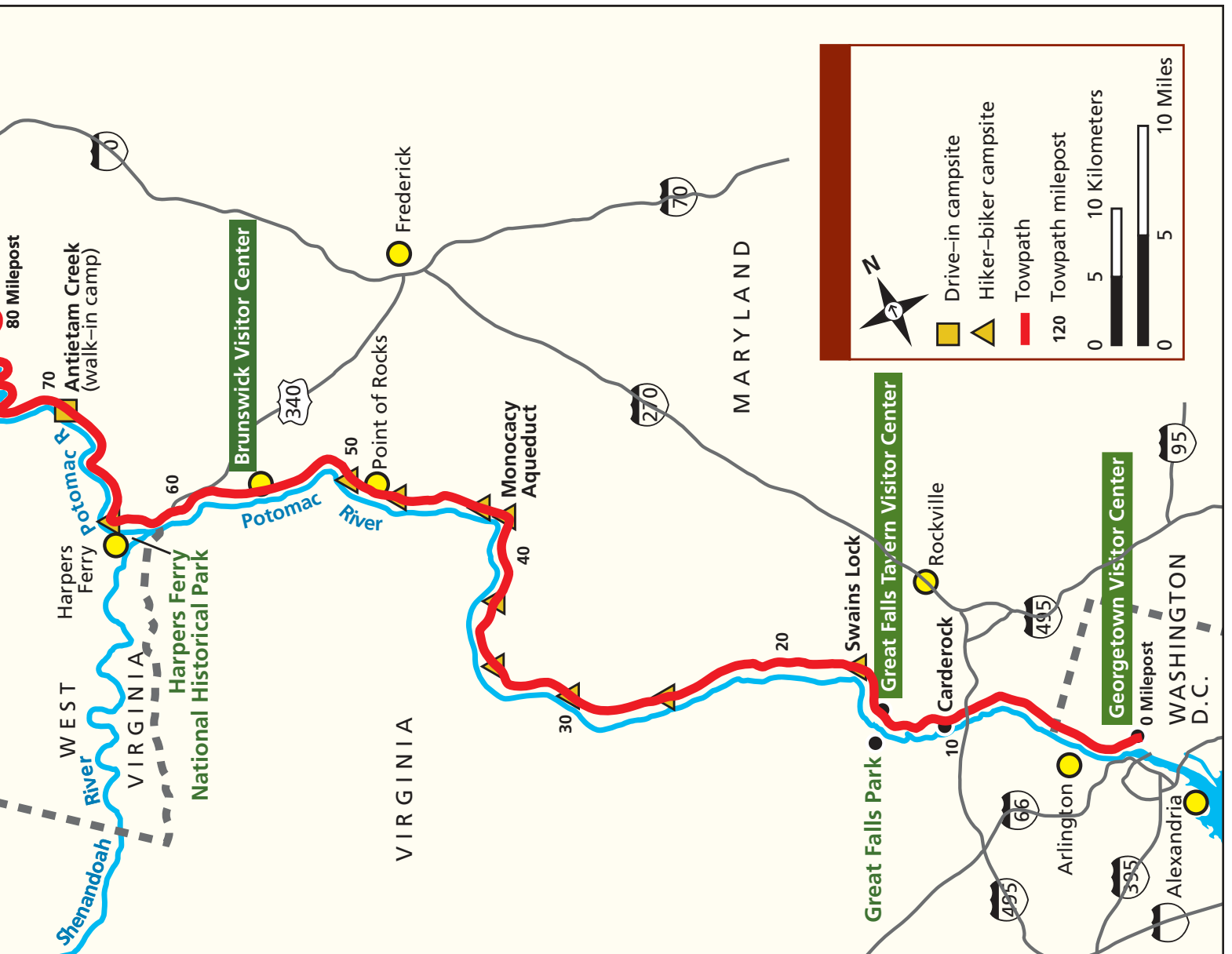


4. Circle two locations you want to check out during your visit. The Great Falls Visitor Center and the Paw Paw Tunnel are fun sites to explore!

5. How long will your trip last? _____

6. What items will you need to bring? _____

Did you know? The towpath is a dirt path alongside the Canal. Mules walked on the towpath as they pulled along the canal boats in the Canal. The towpath looks much the same as it did 150 years ago. You won't find many mules on the towpath today, but you will see lots of visitors as they bike and hike in the park!



Nature Bingo

Today, the Canal provides an important habitat for many plant and animal species.



Take a walk on the towpath or in your neighborhood or backyard. What do you hear? See? Smell? Use your senses to explore the outdoors. Mark your responses in the boxes below and see if you can get 4 boxes in a row, BINGO! Get all 16 boxes, ULTIMATE BINGO!

Check out the Kids & Youth pages on the C&O Canal website for more fun outdoor activities!

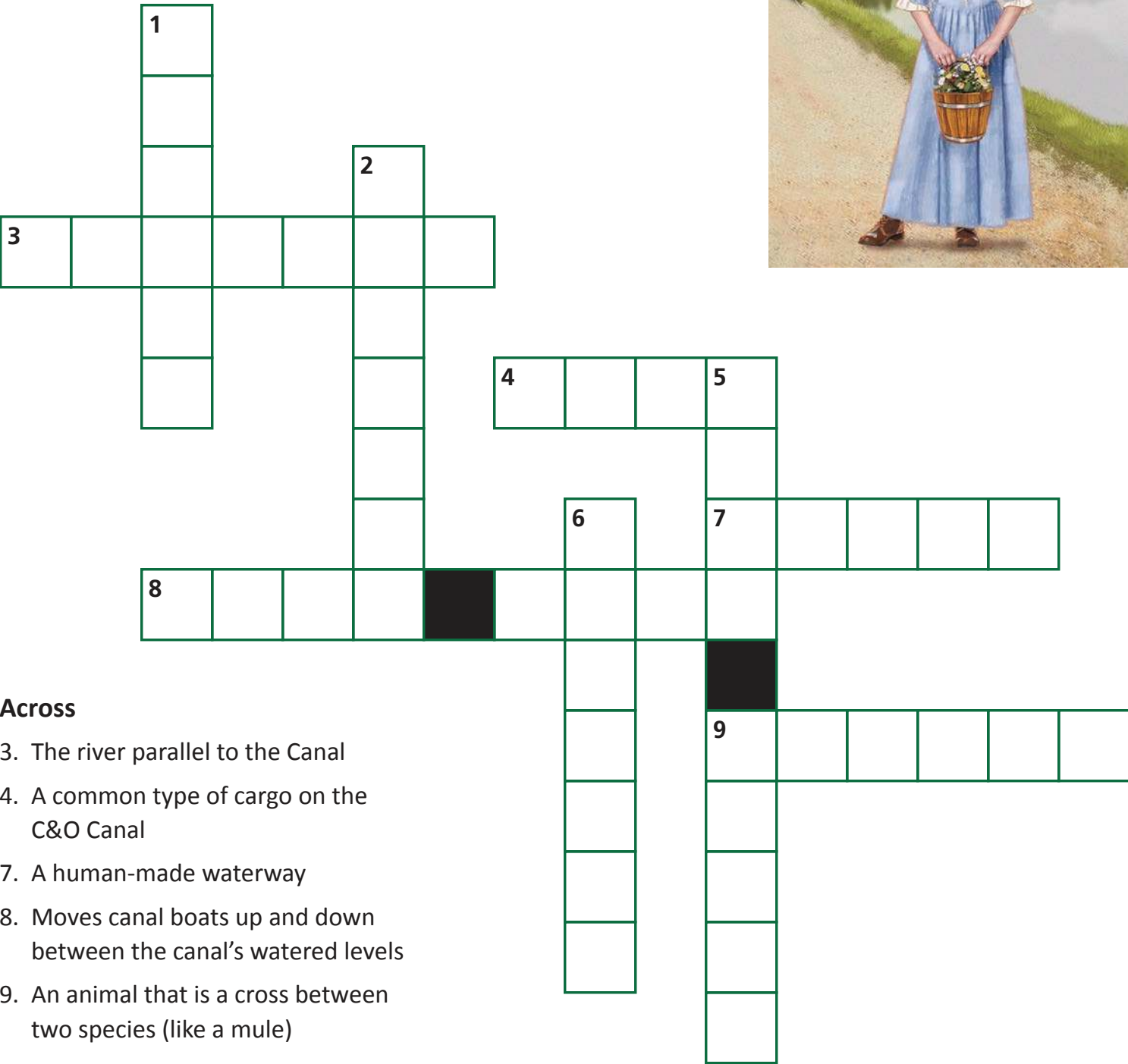


Something Your Favorite Color	An Interesting Smell	A Pleasant Sound	Something Smooth
Something Bumpy	Something Fuzzy	Something Shiny	Something Moved By The Wind
Something Taller Than You	Something Smaller Than You	The Sound Of A Bird	The Sound Of An Insect
The Smell Of A Seasonal Change <i>(ex. Cut grass, decomposing leaves, spring flowers, rain)</i>	Something Your Height	Something Alive	Something Not Alive

Canal Crossword Puzzle



Test your Canal knowledge in the crossword puzzle below!



Across

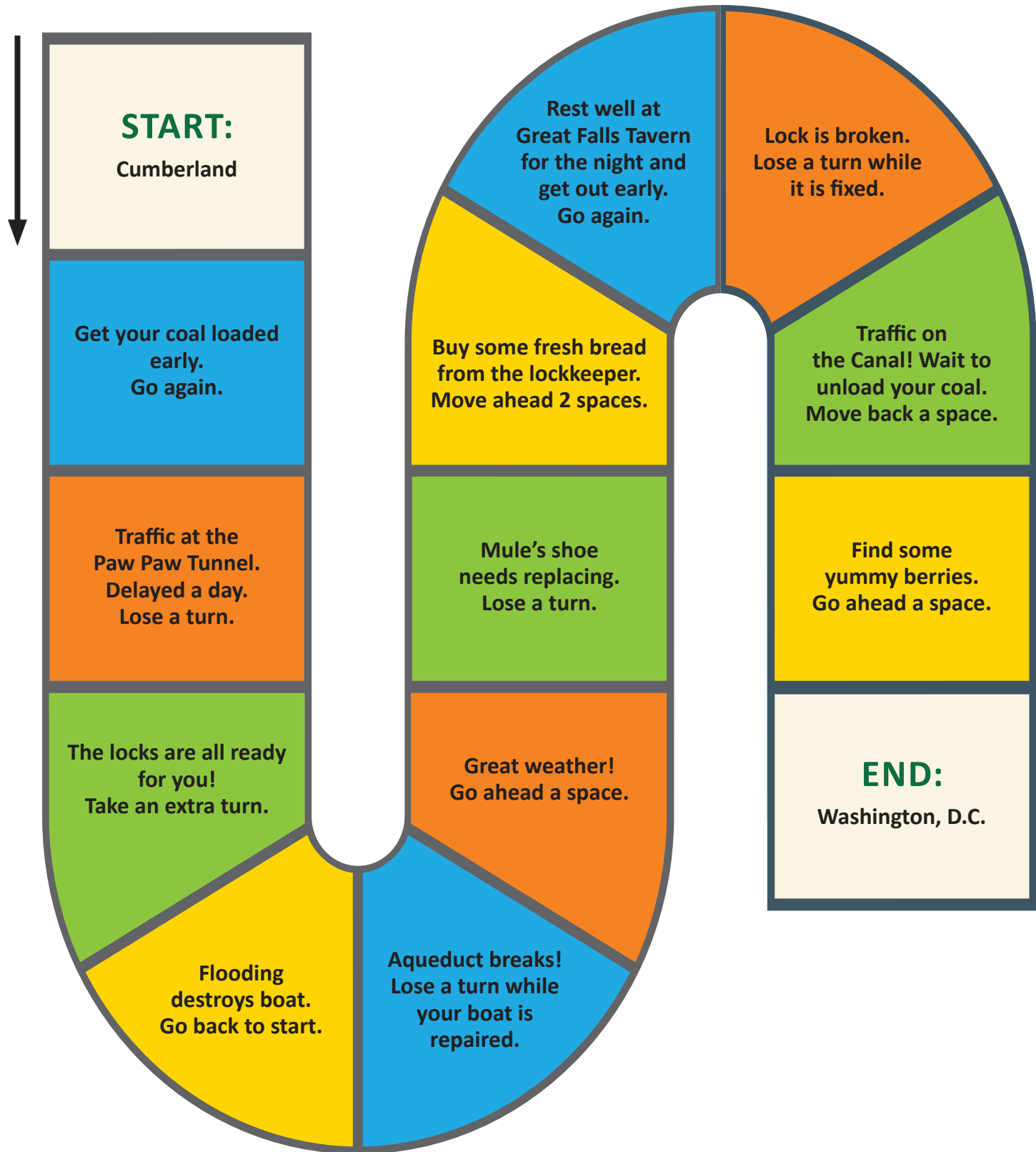
- 3. The river parallel to the Canal
- 4. A common type of cargo on the C&O Canal
- 7. A human-made waterway
- 8. Moves canal boats up and down between the canal's watered levels
- 9. An animal that is a cross between two species (like a mule)

Down

- 1. A reptile commonly found along the Canal (hint: many of them like the water!)
- 2. The Canal is now a _____, a home for many plants and animals
- 5. Where lockkeepers lived
- 6. The path next to the Canal where the mules walked to pull the boats

The Journey: 184.5 Miles!

 Now that you have learned about the C&O Canal, play the game below to experience a trip down the entire Canal, from Cumberland to Washington, D.C. Find a token, like a small rock, to mark your place on the board. Flip a coin to move. Heads is one space; tails is two. Compete with a friend or play by yourself.





Chesapeake and Ohio Canal National Historical Park Junior Ranger Certificate

This is to certify that

is a Chesapeake and Ohio Canal National Historical Park Junior Ranger.

Junior Ranger Signature

Date

Ranger Signature



Junior Ranger Pledge:

As a Junior Ranger, I promise to care about our national parks. I will help to protect the animals, plants and history in our national parks. I will keep learning and share what I have learned with others.



We hope you enjoy exploring the Chesapeake and Ohio Canal National Historical Park! This book was created by C&O Canal Education Interns, Dana Ek and Colleen Kracik, with support from the C&O Canal Interpretation and Education team.

For more information, please check out our website at www.nps.gov/choh or email us at cocanaleducation@nps.gov