

LIFE AROUND THE LAKE

Lake Hopatcong Games and Activities

It's great not to swim into trash

Look how healthy our lake is!

Hope kids learn how to keep our lake clean

The Lake Hopatcong Watershed

A lake is not just like a huge bucket of water. There's a lot more to it than that. The life of a lake includes hills, slopes, plants, trees, streams, rivers... pretty much every part of the land surrounding it. It's called a watershed. A watershed is an area of land that drains into a body of water. Watersheds come in all shapes and sizes. Some are as small as a backyard that drains into a pond, others are thousands of acres in size. No matter where you are, you are in a watershed! Lake Hopatcong is in the Middle Delaware–Musconetcong Watershed.

Lake Hopatcong is the largest of the more than 3,500 lakes, reservoirs and ponds in New Jersey! It drains into the Musconetcong River and has more types of game fish than any other lake or waterway within the state.

Let's take a look at Lake Hopatcong and its watershed by the numbers:

- 4:** Towns that border Lake Hopatcong (Hopatcong, Jefferson, Mount Arlington and Roxbury).
- 9:** Length of Lake Hopatcong, in miles, a distance that would take about three hours to walk.
- 13:** Size, in pounds, of the largest rainbow trout ever caught in New Jersey at Lake Hopatcong—about as heavy as 1½ gallons of milk.
- 28:** Fish species found in a recent fishery study of Lake Hopatcong.
- 45:** Miles of shoreline on Lake Hopatcong—about the same distance as a drive from the lake to New York City.
- 46:** Miles the Musconetcong River flows from Lake Hopatcong to the Delaware River, which is as long as about 810 football fields.
- 13,500:** Acres in the Lake Hopatcong watershed—roughly the same size as Manhattan in New York City.
- 9,745,000,000:** The most water, in gallons, ever officially recorded in Lake Hopatcong, enough to fill nearly 15,000 Olympic-size swimming pools.

SECRET CODE

Learning About the Health of the River

When humans think of bugs, they are not usually happy thoughts. If we feel sick and have a fever, people will say we have a bug. If we feel frustrated or upset, people might want to know what's bugging us. And who enjoys having mosquitoes around?

For rivers, bugs can mean something very different. If a river has certain bugs (or macroinvertebrates), it means it is healthy, not sick. The bugs are categorized in classes that represent how healthy the river must be for that bug to survive there. It's simple! Bugs that need good water to live in will be found in healthy rivers, not in rivers that are unhealthy or polluted.

Figure out the secret message below by matching the bugs with the letters in the chart.

| | |
|------------|------------|
| = A | = B |
| = R | = L |
| = U | = S |
| = C | = T |
| = G | = I |
| = E | = H |

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
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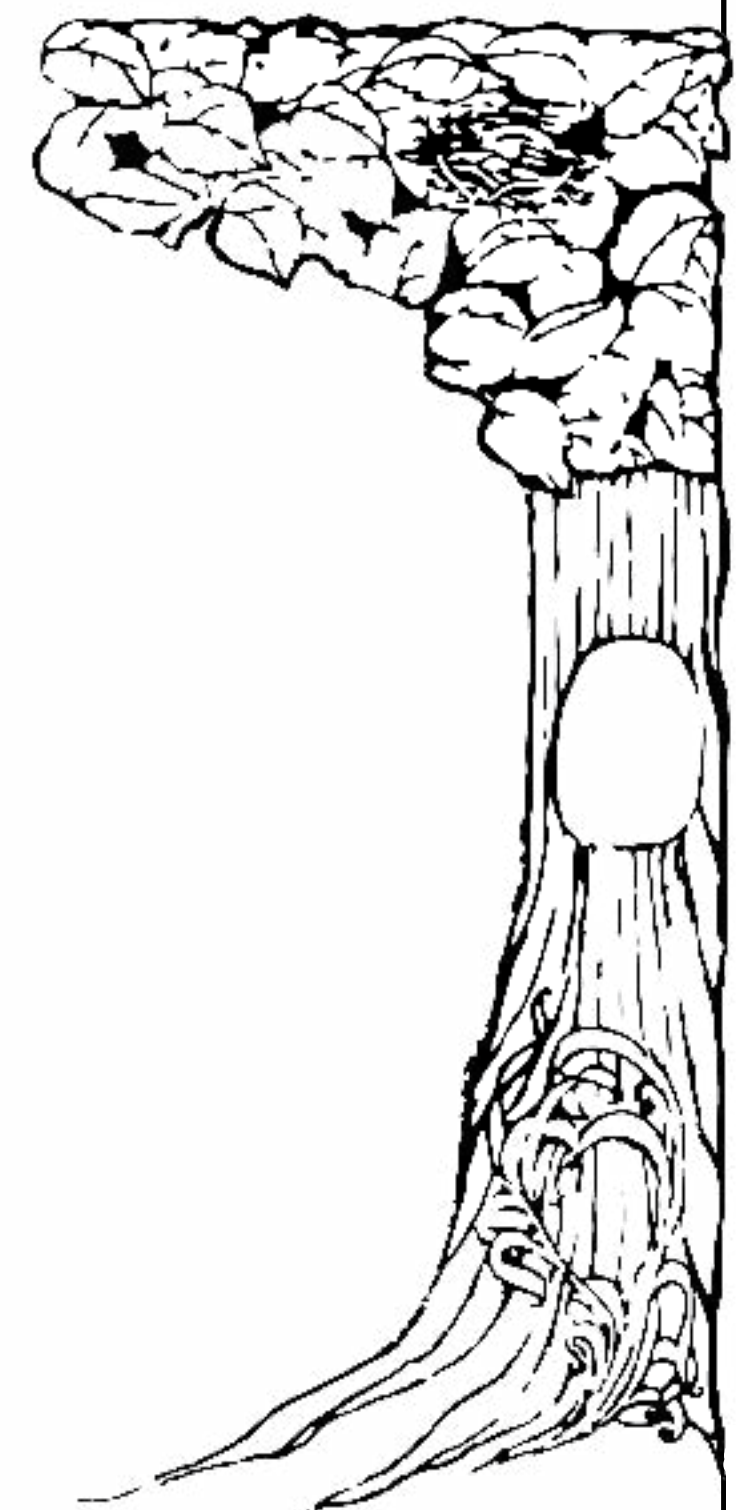
indication of a healthy river!

SCAVENGER HUNT

Nature Discoveries

When you're out in nature, take the time to appreciate what you see, hear, smell and feel. How many of the items below did you notice on your nature hike? Add other items you found to the list and draw some of your favorites into the picture!

- Ladybug
- Animal footprint
- Bird feather
- Pinecone
- Acorn
- Spiderweb
- Bird's nest
- Wild mushroom
- Green moss
- Worm
- Animal hole (in the ground)
- Insect bites in a leaf
- Stream/river
- Fallen branch
- Ferns



WORD SCRAMBLE

Museum Mix-Up

The Lake Hopatcong Museum archives have gotten all mixed-up! Use the clues to unscramble the words and help get the archives back in order.

The first people to live at Lake Hopatcong are called:

NEPLEA

This "road on water" helped move people and supplies:

SROMRI LAANC

This mineral was transported across the lake after leaving the mines:

RNIO ERO

During their vacations at the lake thousands of people stayed in:

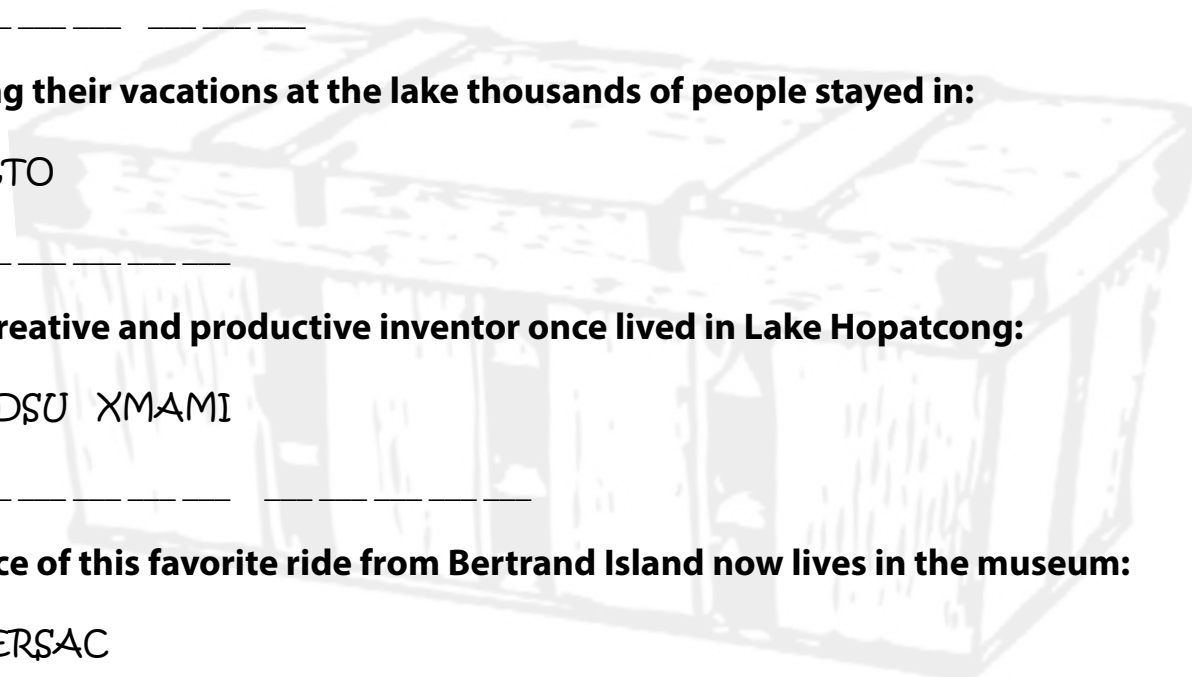
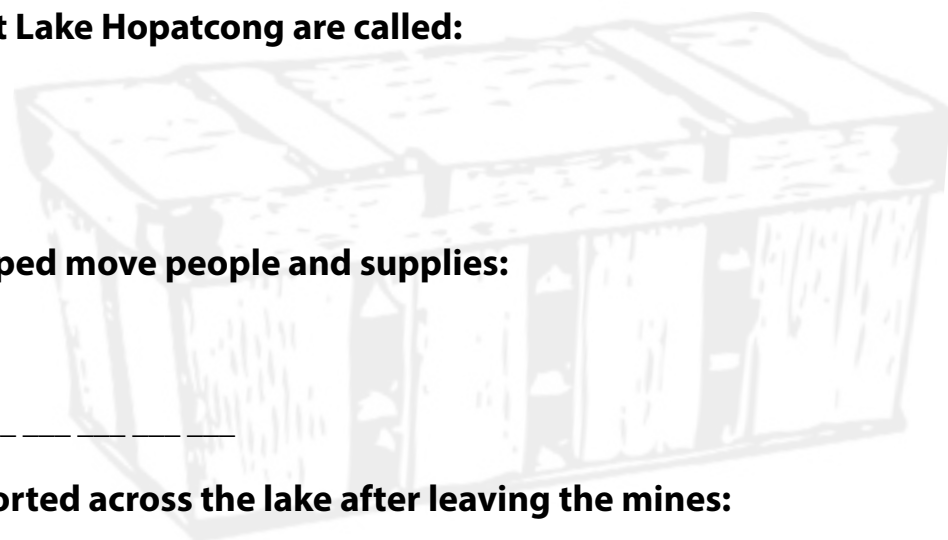
SHELTO

The creative and productive inventor once lived in Lake Hopatcong:

NOHDSU XMAMI

A piece of this favorite ride from Bertrand Island now lives in the museum:

UOLERSAC



LITTER LONGEVITY

How Long Will it Take?

It takes just a moment for an item to be carelessly discarded or blown by the wind into the woods or a lake, but it can take many, many years for that item to degrade. Test your knowledge about degradation times. Draw a line between each item (left) and its estimated degradation time (right). Degradation times can be used more than once.

How long will it take for these items to decompose?



Undetermined

MANY years

A few years

A few months

A few weeks

No Excuses

Have you ever littered and thought you had a good reason for it?

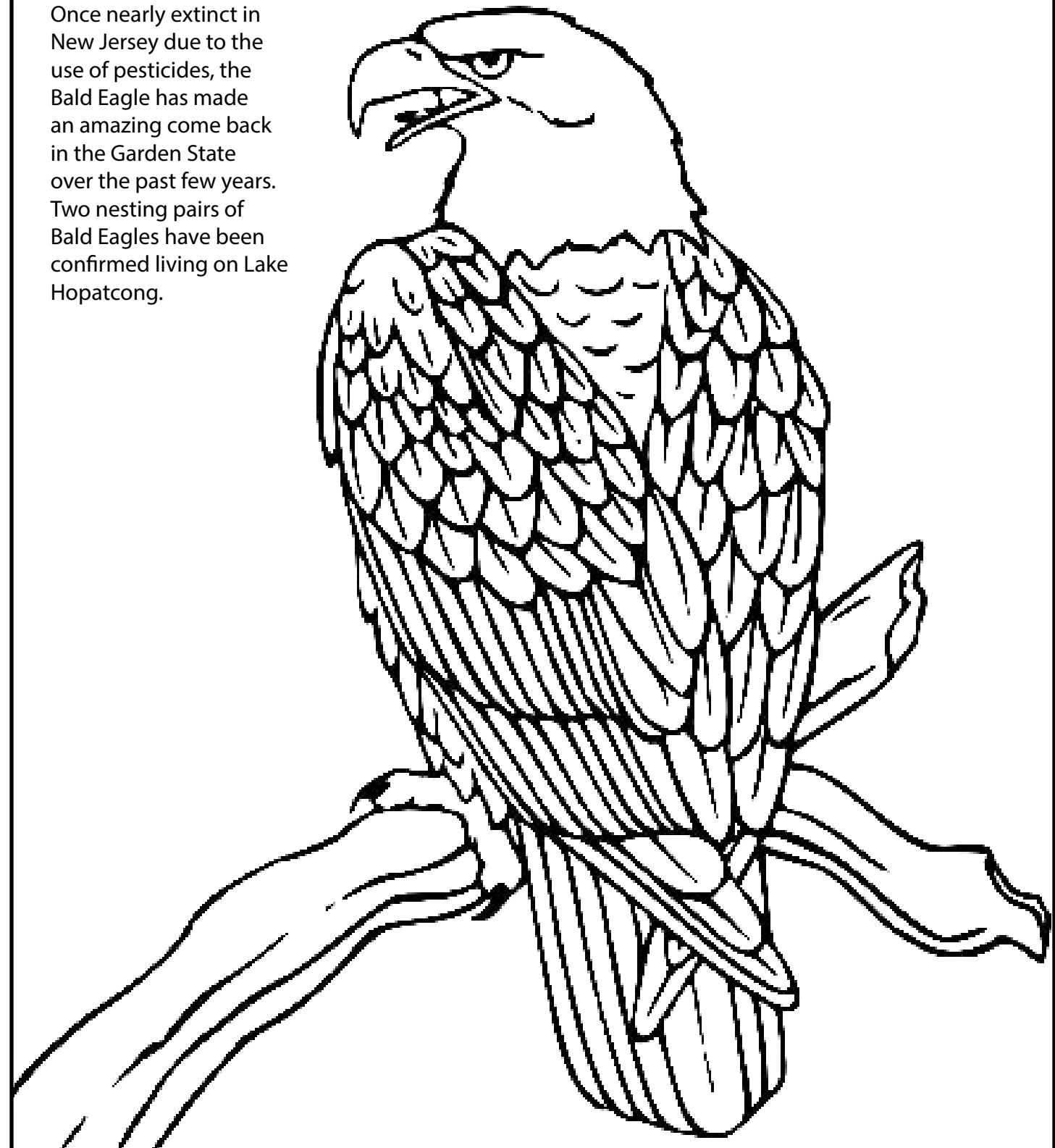
When people litter, they sometimes think they have a good reason for it, but, there is NEVER a good excuse for littering. Take a look at the list of reasons people use for littering. Put a check mark next to the excuses you have heard people use when they litter.

If your friends and family use these excuses, remind them there are no good excuses for littering and ask them to throw their trash away in a trash can.

- There's already trash there.
- Why shouldn't I?
- I don't want to mess up my backpack.
- It's too hard to find a trash can.
- Mom would get upset if she knew I ate a snack before dinner.
- Everyone else does it!
- Someone will pick it up for me.
- It's JUST a candy wrapper.
- It's too heavy to carry.
- Nobody saw me.
- I only did it one time.
- Nobody told me not to.
- The trash can was just too yucky to touch.
- It's so tiny, it won't matter.
- Bees were around the trash can.
- I saw an adult do it.
- I don't care about the forest.
- There wasn't a sign telling me not to litter.
- It fell out of my pocket.
- Nobody cares.

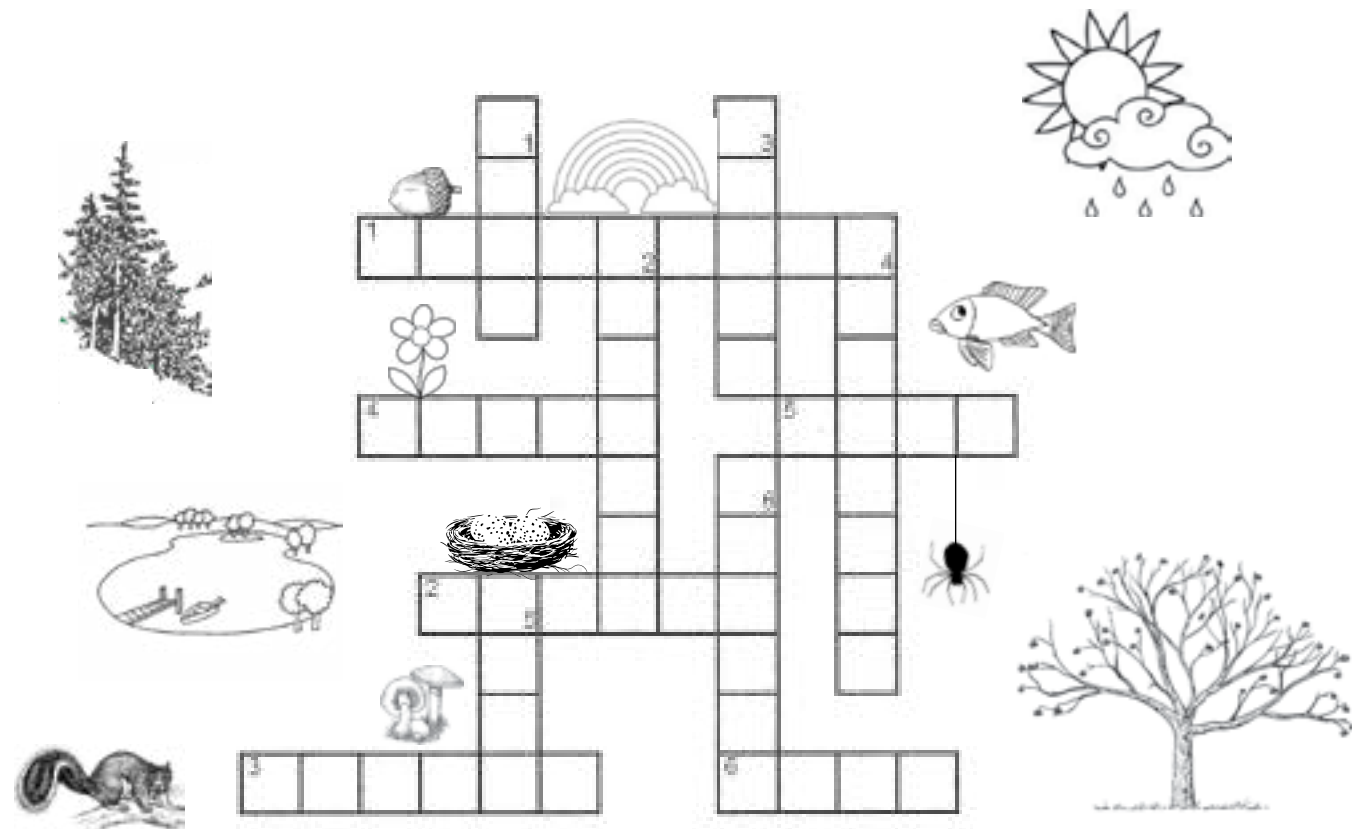
Bald Eagle

Once nearly extinct in New Jersey due to the use of pesticides, the Bald Eagle has made an amazing come back in the Garden State over the past few years. Two nesting pairs of Bald Eagles have been confirmed living on Lake Hopatcong.



Nature Criss-Cross

Complete the crossword by filling in a word that fits each clue. The pictures are additional hints.



ACROSS

- 1. A fungus (plural) sometimes found on pizza
- 2. A plant that blooms
- 3. A small creature with 8 legs
- 4. An oval nut that is the fruit of an oak tree
- 5. A creature that lives in water and has fins
- 6. A tall plant that has a hard trunk, branches and leaves

DOWN

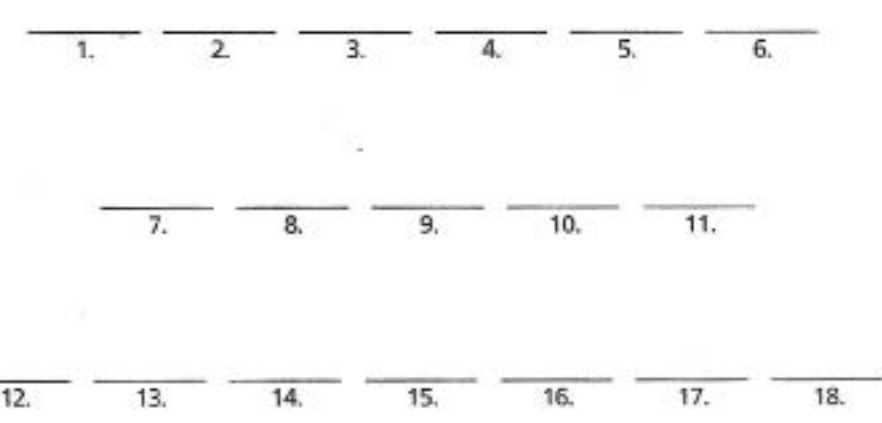
- 1. Where a bird lays its eggs
- 2. An arch of different colors you can sometimes see in the sky after it rains
- 3. A collection of tiny water droplets in the sky
- 4. A small animal with a bushy tail
- 5. A large inland body of water
- 6. A large area where trees grow close together

The Three Rs of Good Stewardship

Good stewards protect and promote a clean, safe environment through their own actions - making our planet a place where future generations of both humans and animals will thrive.

Hidden in the phrase below are the three most important words to remember if you want to be a good steward of your environment. Link the missing letters in the phrase (in order) to spell out these words.

Pu1chasing and r2using 3isposable prod4ucts
lik6 plastic containe7s, groc8ery bags, foam c9ups
and gla10s jars reduces th11 amount of t12ash we
gen13erate thereby redu14ing the man15 pieces of
litter that 16an possib17ly becom18 marine debris!



Museum Madness

The Lake Hopatcong Historical Museum is a fun and interesting place to visit. Many people are very serious about the history of Lake Hopatcong and visit it to learn about what it was like many years ago. Sometimes, though, it's fun to just be silly. Without reading the story out loud, ask someone else to come up with words so you can fill in the blanks. Then read the whole story and make history hilarious!

It was fun to visit the Lake Hopatcong Historical Museum

The museum is in a _____ building that used to be the home of _____
adjective female teacher's name

more than _____ years ago. It is located near a _____ on _____ and
number pizza place planet name

has many displays of old _____ and _____ items that are related to
noun plural adjective

historical Lake _____, which is New Jersey's most _____ body of water.
male singer's last name adjective

We learned that the lake is the source of the _____ we drink every day. The lake used to be
a liquid

a very _____ place years ago. Many famous _____ visited it and brought
adjective animals

_____ for vacations. The all used to _____ in the lake and explore the
a group of people verb

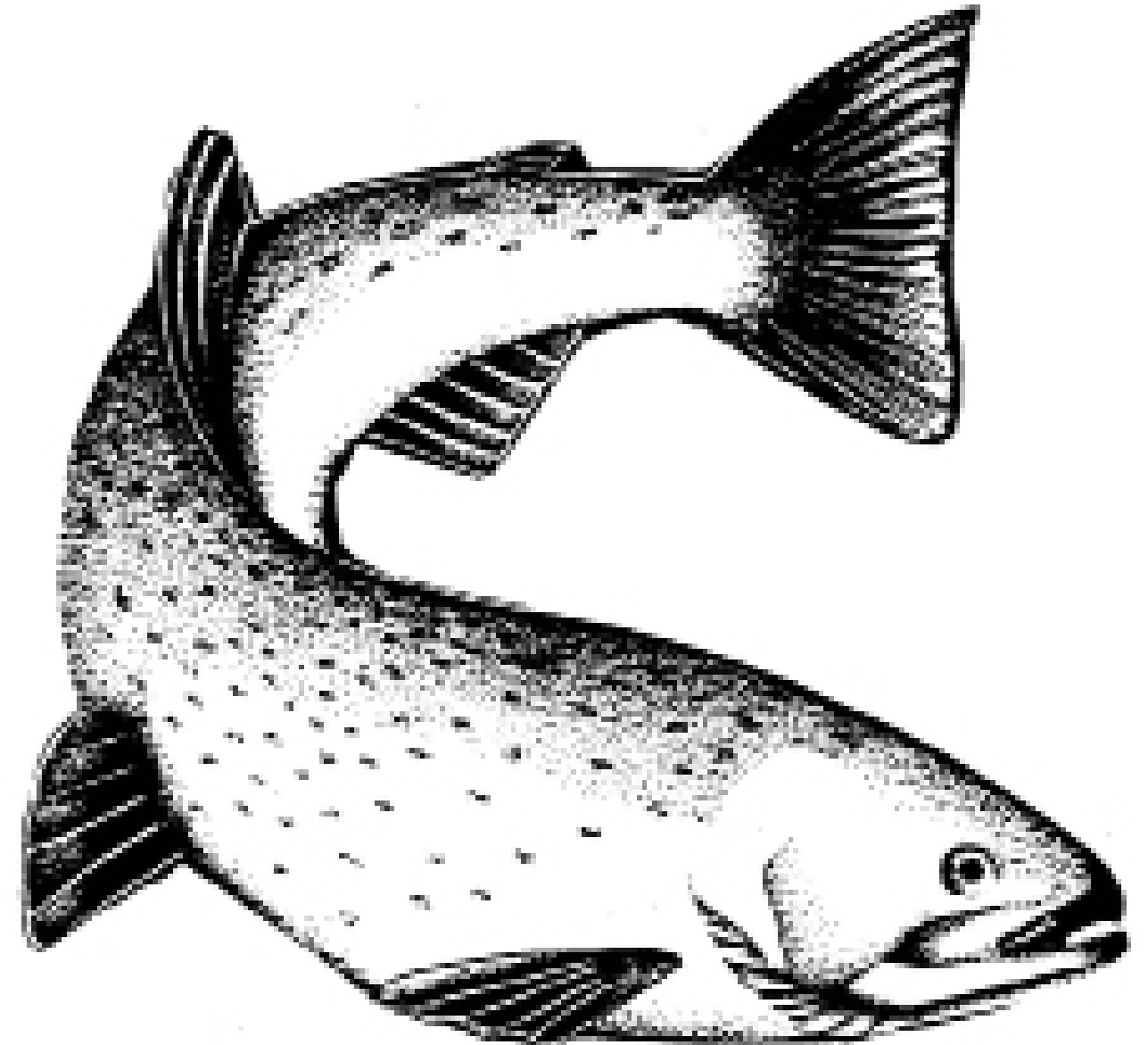
_____ nearby. It was also romantic so couples _____ there a lot.
plural noun past tense verb

Some men even asked their girlfriends to _____ them and gave them a _____
verb adjective

to wear on their finger. The history of the lake is _____!
adjective

Rainbow Trout

Rainbow trout are colorful fish. Their bodies are blue-green or yellow-green and have a rose-colored strip along each side. Their bellies are white and they have tiny black spots too.



WORD SEARCH

Watershed Word Sleuth

Find and circle all the words hidden in the puzzle. The words may be placed horizontally, vertically or diagonally and may read forward or backward.

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | D | S | D | X | D | R | A | F | R | X | K | M | D | Y | Y | N | I | M | T |
| S | E | H | I | U | R | H | B | R | F | X | D | E | P | V | M | E | U | Q | H |
| P | U | O | C | I | C | J | E | F | V | O | H | D | F | R | N | P | J | L | D |
| O | A | F | V | X | Z | R | M | S | P | L | N | E | I | V | S | D | F | D | F |
| L | O | E | M | V | W | N | E | J | L | Z | A | U | I | T | O | B | S | E | E |
| L | R | V | A | F | U | R | Y | E | E | Y | T | R | R | S | Q | L | K | H | Y |
| U | J | R | S | Q | N | A | Y | T | K | B | O | E | U | K | B | E | F | S | U |
| T | I | I | R | O | W | I | T | Y | O | N | A | K | R | B | M | K | I | R | E |
| I | K | D | E | Y | J | N | P | Y | M | M | I | K | O | G | T | R | C | E | B |
| O | X | G | T | B | V | W | D | E | V | E | L | O | P | M | E | N | T | T | C |
| N | G | E | A | F | A | A | N | O | J | S | Y | E | S | Z | V | M | A | K | |
| H | L | P | W | B | G | T | F | C | B | U | H | B | E | L | Y | L | A | W | O |
| H | W | L | D | M | Q | E | A | G | R | P | Q | R | A | W | Z | M | X | T | A |
| Y | L | A | A | R | G | R | F | I | A | O | V | K | X | Z | U | O | T | Z | M |
| C | F | F | E | P | L | V | T | R | Z | O | E | B | W | I | J | U | B | E | V |
| W | C | H | H | Z | X | Q | G | N | I | F | A | A | J | Z | A | N | W | B | S |
| R | A | O | U | A | O | O | X | R | D | A | I | S | P | W | S | T | M | X | L |
| P | S | A | M | Z | E | S | O | K | M | M | H | I | T | F | E | A | L | Z | K |
| W | G | Z | U | G | P | M | A | E | R | T | S | N | W | O | D | I | U | G | Z |
| D | X | S | D | N | A | L | T | E | W | R | A | B | X | P | O | N | L | A | W |

WATERSHED
 ENVIRONMENT
 LAKE
 RIVER
 HEADWATERS
 CREEK
 RIDGE
 MOUNTAIN
 GEOGRAPHY
 BASIN
 RAINWATER
 DEVELOPMENT
 RUNOFF
 RESERVOIR
 UPSTREAM
 DOWNSTREAM
 WETLANDS
 POLLUTION



MATCH-UP

Macroinvertebrate Match-Up

Draw arrows to match each macroinvertebrate with the correct name. Then color them in!

Helgamite



Crayfish



Mayfly



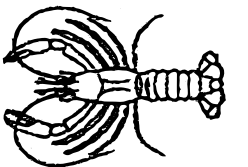
Stonefly



Flatworm



Caddisfly



Air Breathing Snail

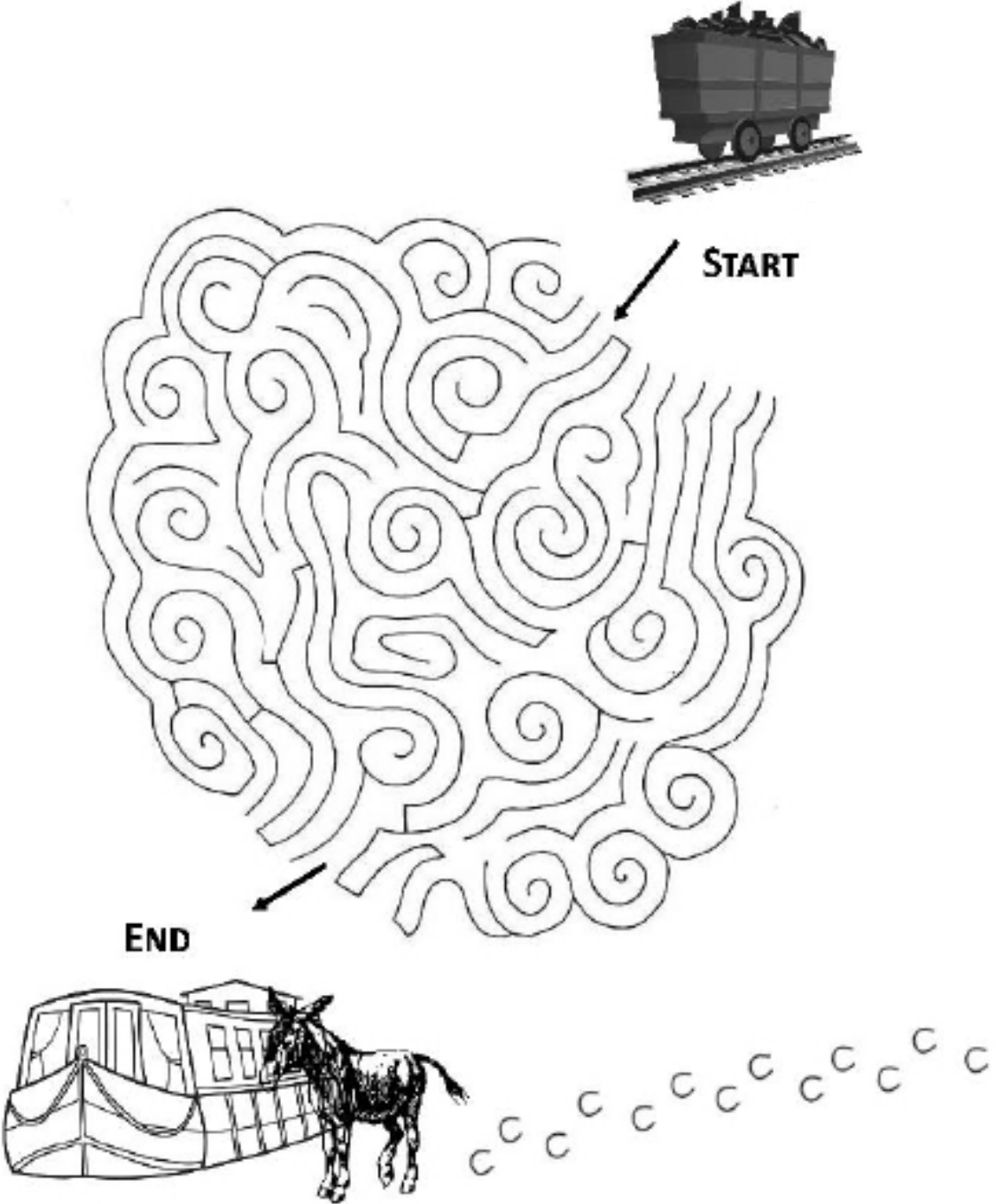


Midge



Help Get the Iron Ore to the Canal

Iron ore from the mines was transported across Lake Hopatcong. Can you steer this shipment across the lake to the Morris Canal?



Beat the Clock

Set a timer and see how many new words you can create in 5 minutes using the letters found in LAKE HOPATCONG. There are two "O"s and two "A"s in LAKE HOPATCONG so your new words can contain doubles of these letters. Challenge a friend and see who can find the most words in the time limit!



- Example: CAP _____ 9. _____ 20. _____
- Example: POKE _____ 10. _____ 21. _____
- Example: LATCH _____ 11. _____ 22. _____
- 1. _____ 12. _____ 23. _____
- 2. _____ 13. _____ 24. _____
- 3. _____ 14. _____ 25. _____
- 4. _____ 15. _____ 26. _____
- 5. _____ 16. _____ 27. _____
- 6. _____ 17. _____ 28. _____
- 7. _____ 18. _____ 29. _____
- 8. _____ 19. _____ 30. _____

Answer Key:

Learning About the Health of the River (page 2)

CLASS 1 BUGS ARE THE BEST- indication of a healthy river!

Museum Mix-Up (page 4)

- Lenape
- Morris Canal
- Iron ore
- Hotels
- Hudson Maxim
- Carousel

How Long Will it Take? (page 5)

- Glass bottle - Undetermined
- Fishing line - MANY years/Undetermined
- Plastic beverage bottle - MANY years/Undetermined
- Aluminum can - MANY years
- Styrofoam cup - MANY years/Undetermined
- Cigarette filter - MANY years
- Milk carton - A few months
- Banana peel - A few weeks

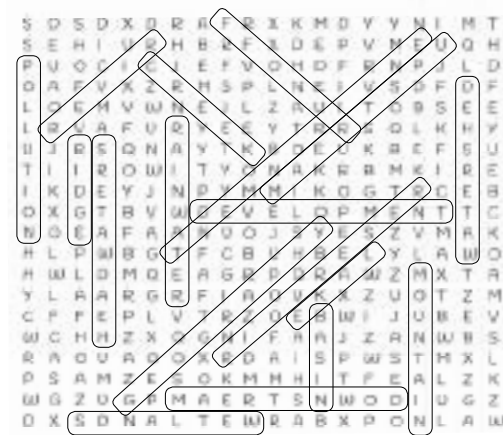
Nature Criss-Cross (page 8)

- | Across | Down |
|--------------|-------------|
| 1. Mushrooms | 1. Nest |
| 2. Flower | 2. Rainbow |
| 3. Spider | 3. Cloud |
| 4. Acorn | 4. Squirrel |
| 5. Fish | 5. Lake |
| 6. Tree | 6. Forest |

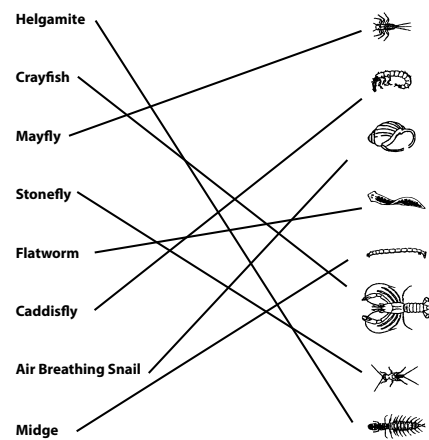
The Three Rs of Good Stewardship (page 9)

REDUCE REUSE RECYCLE

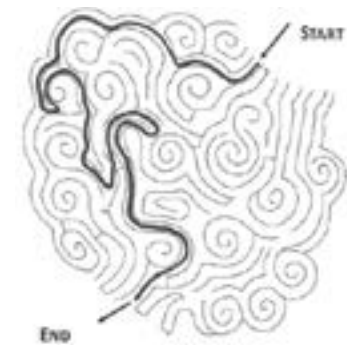
Watershed Word Sleuth (Page 12)



Macroinvertebrate Match-Up (page 13)



Help Get the Iron Ore to the Canal (page 14)





The Lake Hopatcong Foundation is dedicated to fostering and encouraging a vibrant and healthy Lake Hopatcong and its surrounding community.

Our mission is reflected in our projects and initiatives—in the areas of Environment, Education, Community Building, Historical Preservation, Public Safety, Recreation, Arts and Culture – all of which focus on improving the lake environment and experience.

As a nonprofit, membership donations are crucial in helping us to continue and expand our programming and initiatives from aquatic invasive species prevention to improved safety to educational field trips and more.

Please become a member today at **LakeHopatcongFoundation.org**.



The Lake Hopatcong Foundation ♦ 125 Landing Road, Landing, NJ 07850 ♦ 973-663-2500