

Treasure Arkansas



Greenbeard's Environmental Adventure

ADEQ

ARKANSAS
Department of Environmental Quality

Arkansas Department of Environmental Quality

The Arkansas Department of Environmental Quality (ADEQ) is a government agency for the state of Arkansas. Our main office is in central Arkansas, but we have offices and inspectors located throughout the state.

Our regulatory programs protect the land, air, and water. We issue permits and monitor for compliance.

We also offer information and assistance so that everyone can protect the environment.

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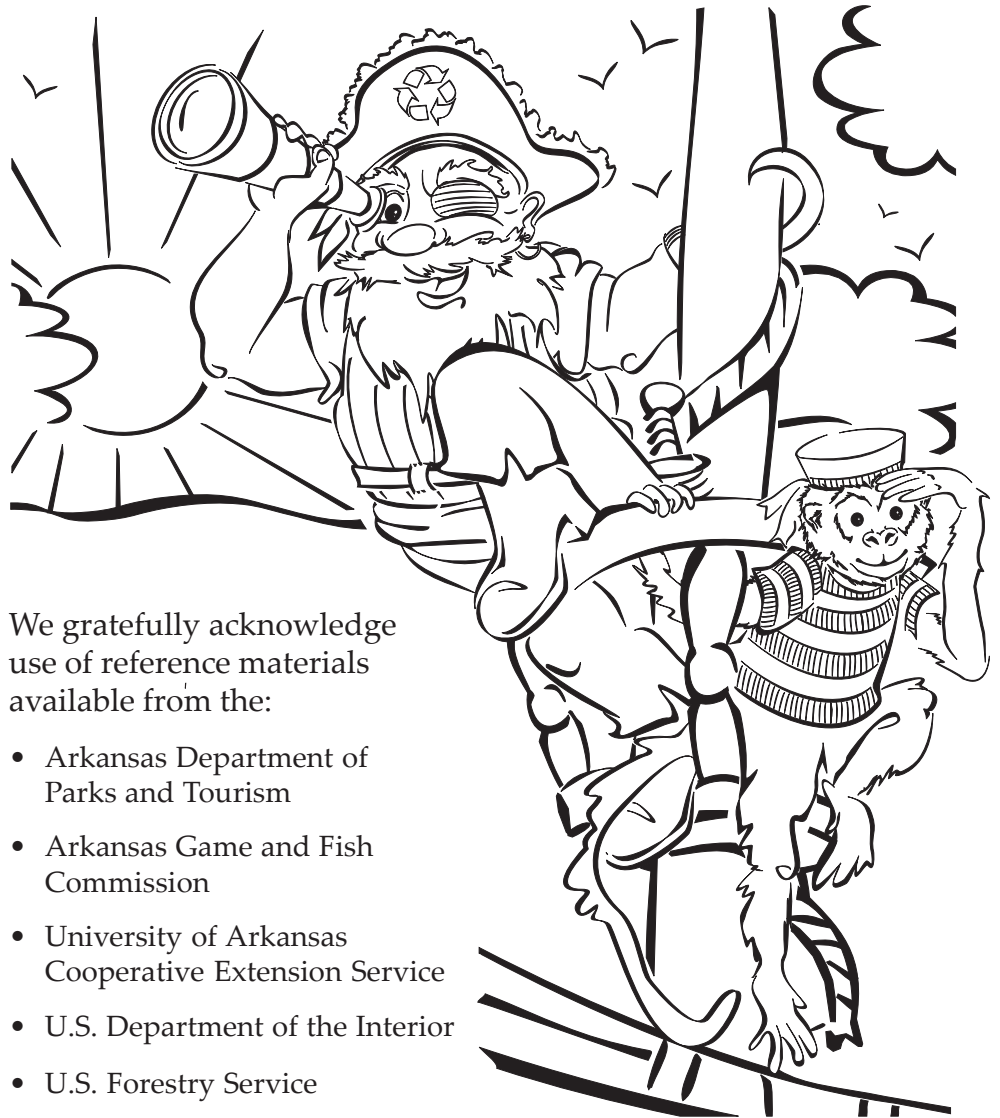
Artwork created by
POA Graphic Artist,
Diane Fowler.

ADEQ Helpline
501.682.0923



www.adeq.state.ar.us

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We gratefully acknowledge
use of reference materials
available from the:

- Arkansas Department of
Parks and Tourism
- Arkansas Game and Fish
Commission
- University of Arkansas
Cooperative Extension Service
- U.S. Department of the Interior
- U.S. Forestry Service

Follow Greenbeard's journey to the treasures of Arkansas:

Hot Springs National Park is located in Hot Springs (Garland County).
www.nps.gov/hosp

The Crater of Diamonds State Park is near Murfreesboro (Pike County)
in southwest Arkansas. www.craterofdiamondsstatepark.com

Blanchard Springs Caverns is near Mountain View (Stone County) in
north Arkansas. www.fs.fed.us/oonf/ozark/recreation/caverns.html

The Buffalo National River flows through north Arkansas. The Tyler
Bend Visitor Center, the main visitor center for the park, is located
eleven miles north of Marshall (Searcy County). www.nps.gov/buff

Toltec Mounds Archeological State Park is approximately
12 miles east of Little Rock near Scott (Pulaski County).
www.arkansasstateparks.com/parks

The Governor Mike Huckabee Delta Rivers Nature Center is in
Pine Bluff's Regional Park (Jefferson County). www.deltarivers.com



Ahoy, matey!
My name is Greenbeard, my aim
is to find all the treasure in the land.

My loyal matey, Milo, and
I have just taken a journey
through an amazing place called
Arkansas. Pull up a chair,
and I'll tell you more...



My beard is green,
my ship is clean,
you'll see some sights you've never seen...

And the water, land, and air must be
clean, pure, and fair.

Arrrhg, those are treasures for me!



Arkansas is a land of clean air,
 abundant water, rolling hills,
 and fertile farms.

But why do some people litter?
 Why do they leave trash on the roadsides?
 We'll make those litterin' scoundrels
 walk the plank!

Littering is ugly
 and harmful to
 people and animals.

OUCH!

pork
&
beans

Green
Beans

Blanchard Springs Caverns

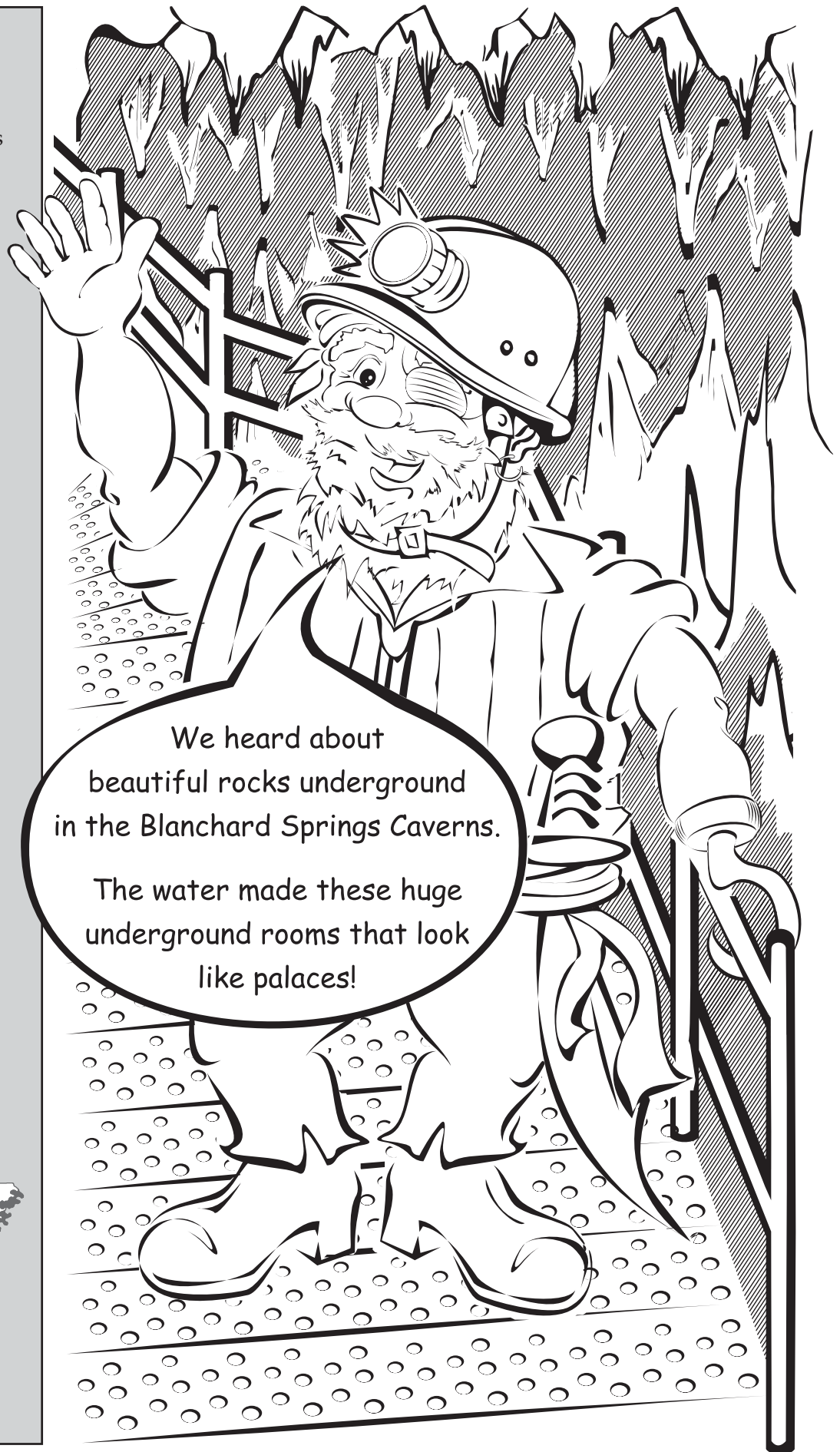
Blanchard Springs Caverns are living caves, which means they continue to grow with each drop of water. These add to the structures and lead to new sights in the caves.

The temperature in Blanchard Springs is a year-round 58°F with nearly 100% humidity.

Rules when visiting a cave:

- Keep the cave clean
- Follow existing trails
- Don't disturb any cave life
- Don't take your pet in a cave
- Never leave graffiti
- Don't touch cave formations

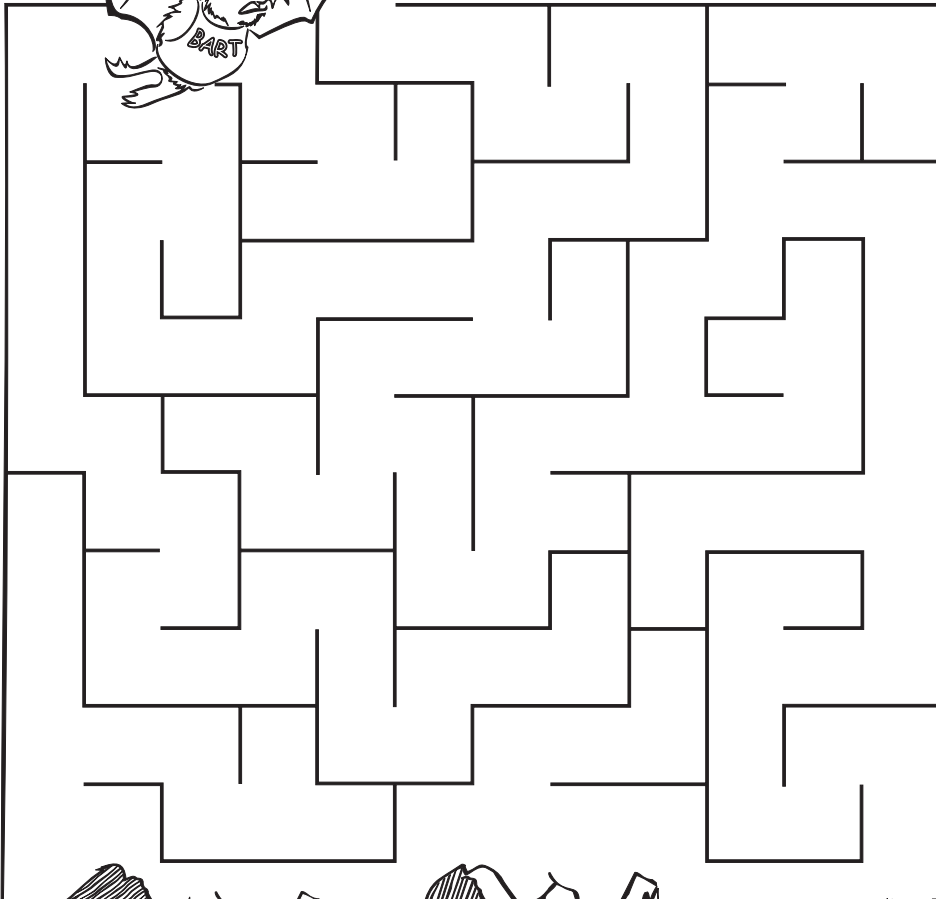
Blanchard Springs Caverns are located near Mountain View in Stone County, Arkansas.





Bart's Cave Maze

Help Bart the bat make it to the cave so he can hibernate for the winter.



Cave Life

All sorts of animals call caves "home." Frogs, millipedes, crickets, salamanders, fish, and bats are just a few. Bats can be found in caves year round, but about 150,000 Gray bats use Blanchard Springs Caverns to hibernate in the winter. Gray bats only eat insects, so they hibernate until spring when the insects come out. Gray bats are native to Arkansas and are an endangered species.

Factors in the Gray bat's decline include:

- vandalism
- cave commercialization
- pesticide poisoning
- disturbed hibernation and breeding cycle
- fewer insects available for food

The Delta Rivers Nature Center

What is an ecosystem?

An ecosystem is a community of plants, animals, and their environment, functioning together as a unit. Each part depends on the other for something... perhaps food, shelter, or cleansing.

How does a delta ecosystem work?

The Delta Rivers Nature Center in Pine Bluff explains how the elements of a delta ecosystem work together. The Mississippi River Alluvial Plain, commonly known as the Delta, was once the largest expanse of forested wetlands in the country. Eighty percent of that has been lost, and what remains is mostly found in small, scattered woodland patches. Loss of part of an ecosystem can mean the death of a species.

The Delta Rivers Nature Center is located in Pine Bluff, Jefferson County, Arkansas.



We were drawn to the mystery of the Delta bayou. The land, water, animals, and plants all fit together like me' favorite quilt.

Take away any of these, and - Avast! It's ruined.



The Wondrous Arkansas Delta Crossword Puzzle

Across

5. An ecosystem that provides natural flood control, a nursery for fish and shellfish, an area to purify and filter groundwater, food, and habitat for numerous species of wildlife, and also provides recreational opportunities such as boating, duck hunting, and fishing.
7. A wetland has to have this.
9. Wetlands by naturally storing water underground and absorbing river overflows, help lessen the destructive effects of this natural disaster.
10. A very tall, grass-like plant common to freshwater wetlands.

14. A large mammal whose home Goldilocks visited and was once so abundant here that Arkansas was known as this state.
15. A small black and white animal that is best left alone (as is all wildlife) but if you don't, you might not smell so good.

4. An amphibian you might hear singing in a swamp along with the birds and insects.
6. This waterfowl enjoys Arkansas' wetlands as a stopping place during its flight south for the winter.
8. A large reptile that has lived in Arkansas wetlands for thousands of years.
11. Popular Arkansas sporting activity that typically involves a hook, line, and sinker.
13. This large Thanksgiving day bird thrives in watery wild lands.

Down

1. This swamp-loving tree has knees that stick out of the water. Why do they need knees?
2. Another more familiar name for a wetland dominated by woody plants.
3. This specific Eastern Arkansas ecosystem is a landscape of meandering rivers on a vast alluvial plain. Most of the natural bottomland forests have been converted into rice, soybeans, cotton, and catfish farms.

I wonder if it meows?

12. A place where a plant or animal can get the food, water, shelter, and space it needs to live.

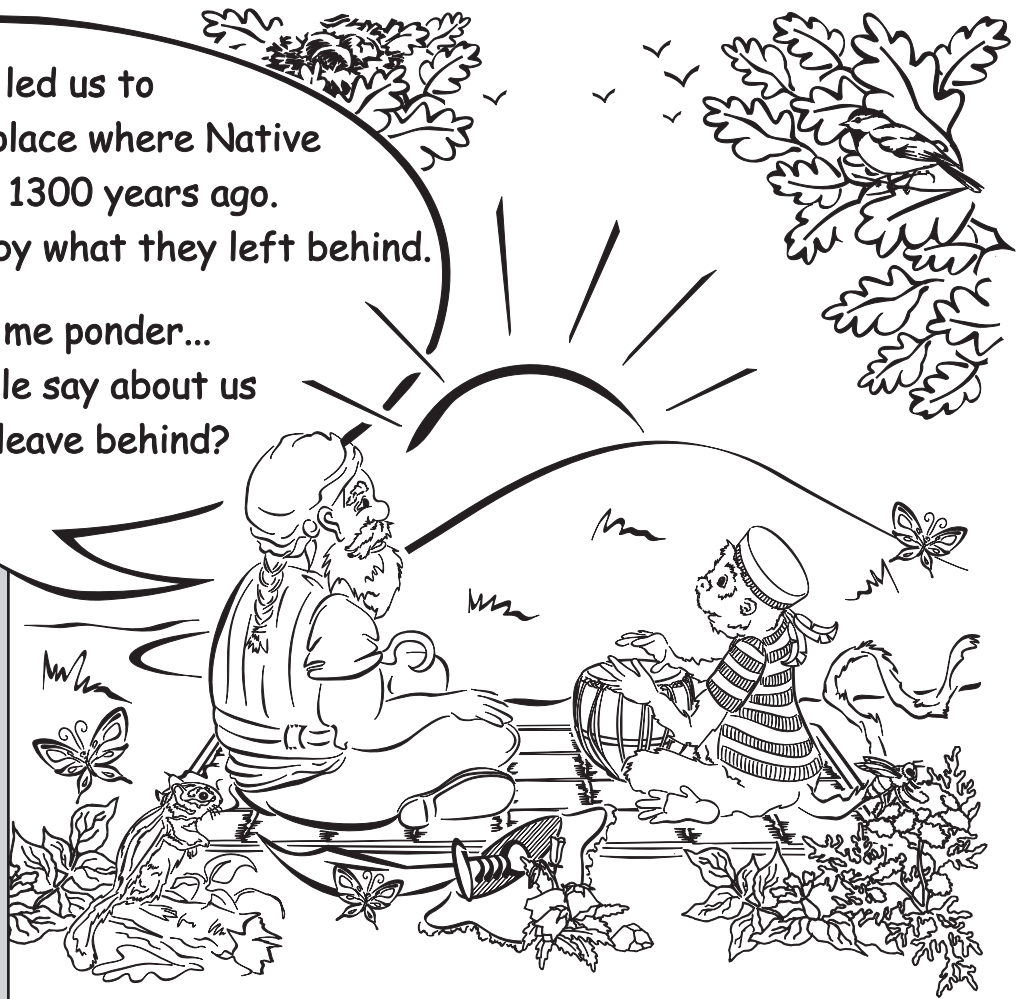
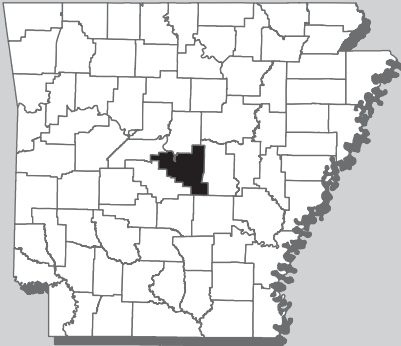
Possible words used in the crossword puzzle (not all listed words are used)

skunk	alligator	dogwood	delta
floods	nutria	salamander	toad
crocodile	cypress	wetland	soil
frog	habitat	swamp	duck
quail	water	fishing	turkey
desert	cattail	recycle	bear

Our map led us to Toltec Mounds, a place where Native Americans lived 1300 years ago. We learned about them by what they left behind.

That makes me ponder... What will people say about us and what we leave behind?

Toltec Mounds Archeological State Park is located in the community of Scott, Pulaski County, Arkansas.



Toltec Mounds Word List Puzzle

Fill in the blanks with the correct words from the Word Bank to complete the helpful tips below. Some words in the word list will not be used. Good Luck!

The tallest _____ at Toltec, rises 49 feet above the surrounding delta flatlands.

The Native Americans who lived at _____ are known as the Plum Bayou people.

The Plum Bayou _____ built sturdy houses and farmed as well as fished and hunted.

Artifacts found at the site include ceramics and stone _____.

Always set an example by not _____, no matter where you are.

By creating less _____, we take up less space on the planet and leave more room for other creatures.

It takes almost 100 years for an _____ can to break down in the environment, but it can be easily recycled into a new one!



WORD BANK: aluminum waste Toltec mound ship
 people littering tools monkey pirate

Arkansas Homegrown Word List Puzzle

Many foods are grown in Arkansas.

Fill in the blanks with the correct words from the Word Bank to complete the helpful tips below. Some words in the word list will not be used. Good Luck!

In an Arkansas garden:

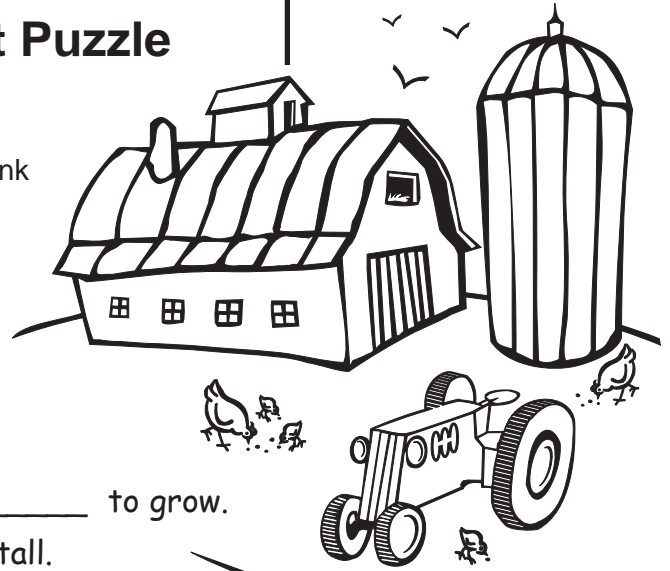
Feed soil with _____ you can make from leaves and food scraps.

Prevent _____ by terracing hills.

Seeds need _____ and _____ to grow.

Lots of sunlight helps _____ grow tall.

WORD BANK: compost erosion plants recycle
 shovel soil water monkey



Food!

We found food in Arkansas!

They grow acres of rice and soybeans, and rows of vegetables. You can find apples and strawberries and peaches.

Let's load up the ship!



Air Quality

The air may not be clean, even if it looks and smells okay. Clean air is important for our health.

Breathing supplies oxygen to our muscles, organs, and tissues, and removes carbon dioxide from the blood. Air pollution can hinder the function of our lungs and diminish the body's natural defense system. Air pollution triggers wheezing, coughing, and other health problems!

Every time you drive to work or school, use your heater or air conditioner, clean your windows, or even style your hair, you make choices that can reduce or increase air pollution.

Drive Smart

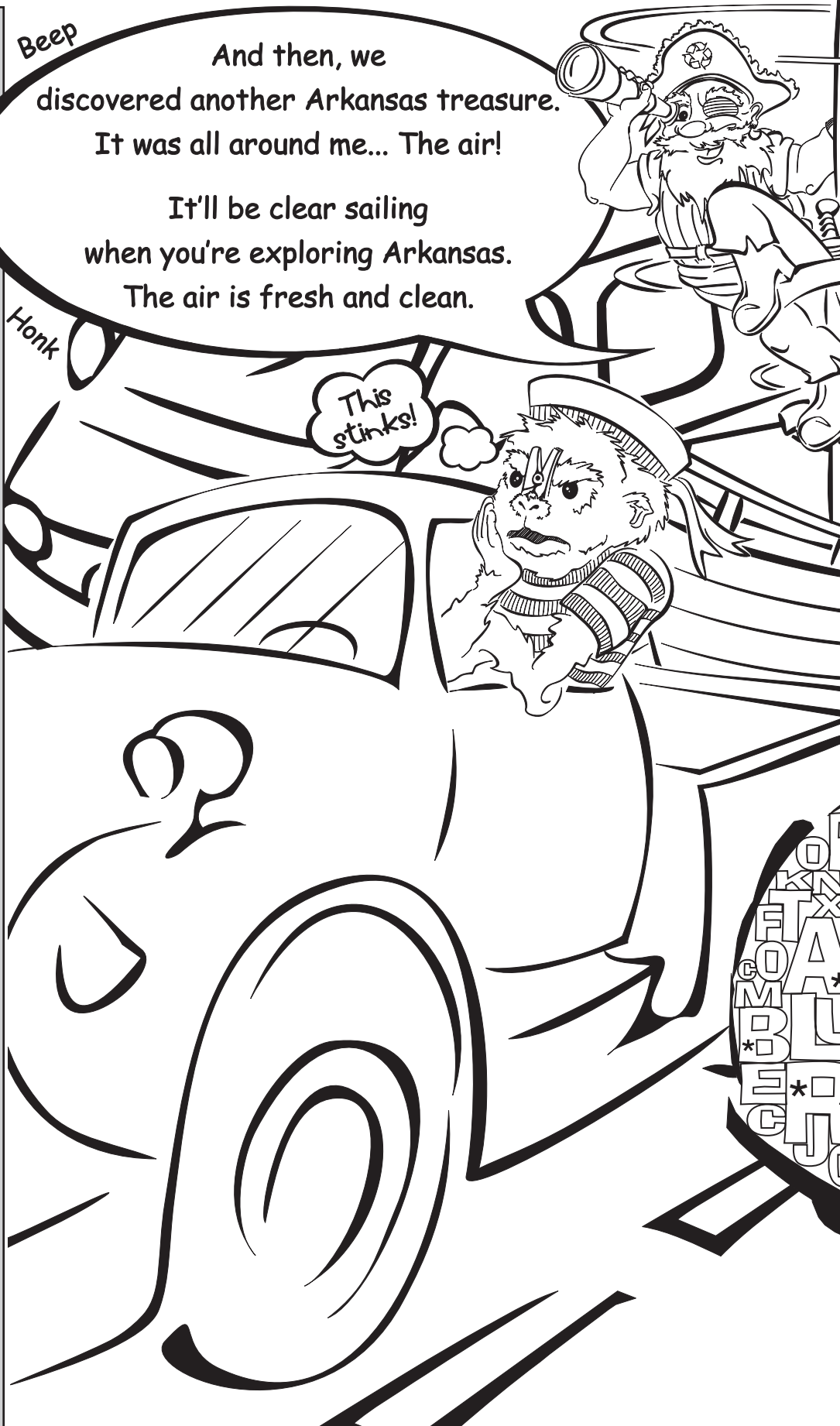
- Carpool
- Combine your errands into one trip
- Replace your car's air filter and keep it running properly

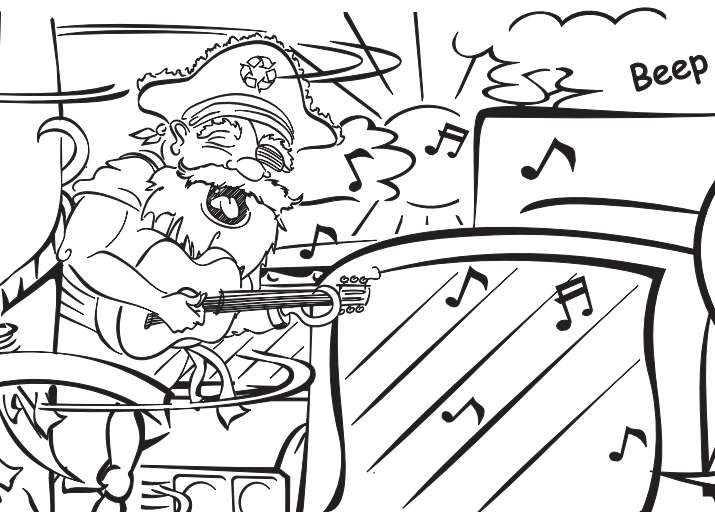
Save Energy

Whenever you burn fossil fuel, you pollute the air. Use less gasoline, natural gas, and electricity (power plants burn fossil fuels to generate electricity.)

Waste Not

It takes energy to make and sell the products we use. Reduce, reuse, and recycle to save energy.

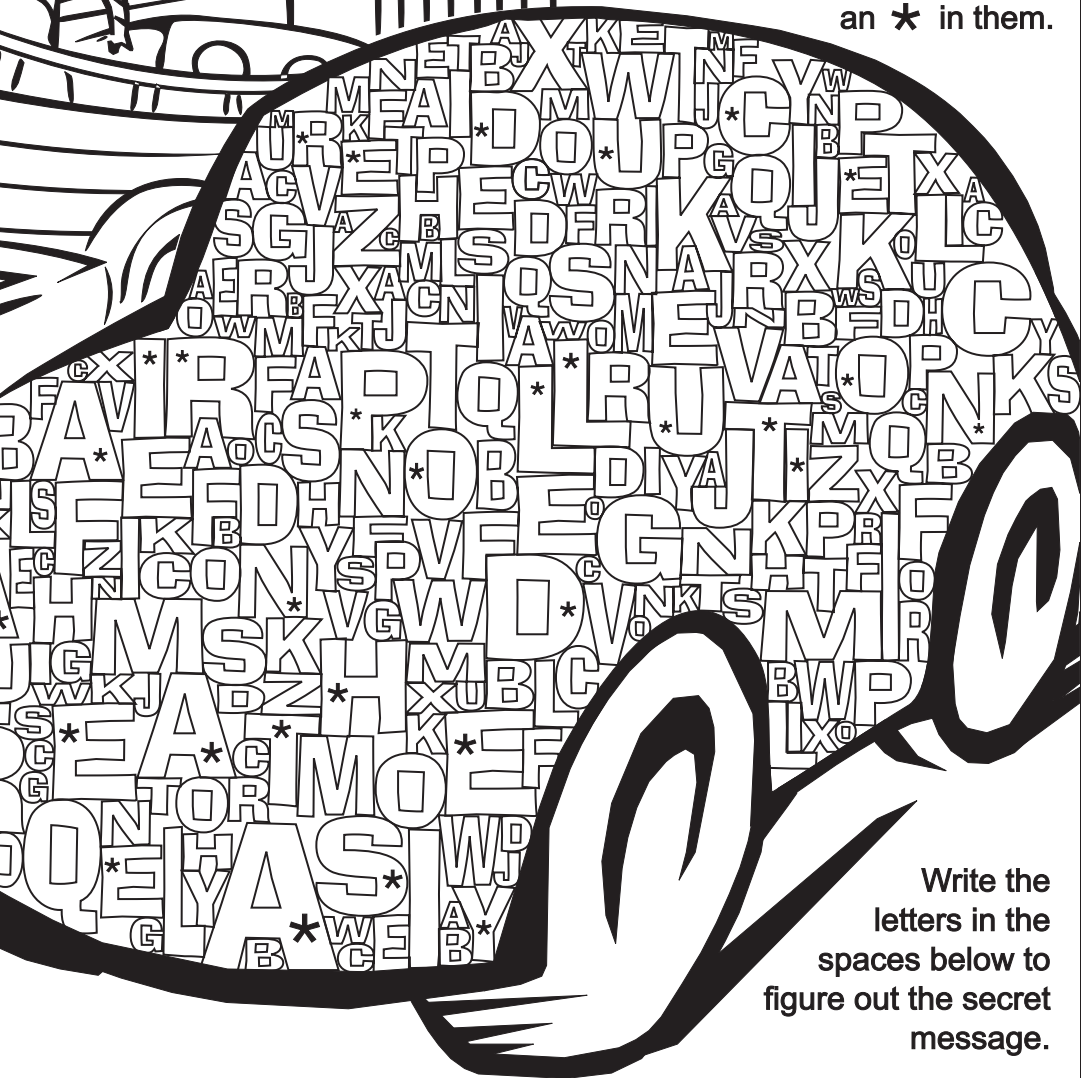




I've discovered the people of Arkansas like to drive cars.
 Arrrgh!
 I love to drive, I love to leave, but most of all, I love to BREATHE!

Air Quality Secret Message Puzzle

To read the secret message, color in the letters with an * in them.



Write the letters in the spaces below to figure out the secret message.

Ozone

The ozone layer lies in the stratosphere, in the upper level of our atmosphere. It filters out most of the sun's potentially harmful ultraviolet rays. If this ozone becomes depleted, then more UV rays will reach the earth causing serious impacts on human beings, animals, and plants.

The stratospheric ozone layer sometimes gets confused with the ozone lying near the earth's surface, known as "ground-level ozone." Most ground-level ozone is produced by the reaction of sunlight with chemicals found mainly in automobile exhaust and gasoline vapors. This human-caused ozone is an unhealthy ingredient of smog.

Ironically, we have too much ozone at ground level and not enough in the stratosphere — and there's no practical way of moving it.

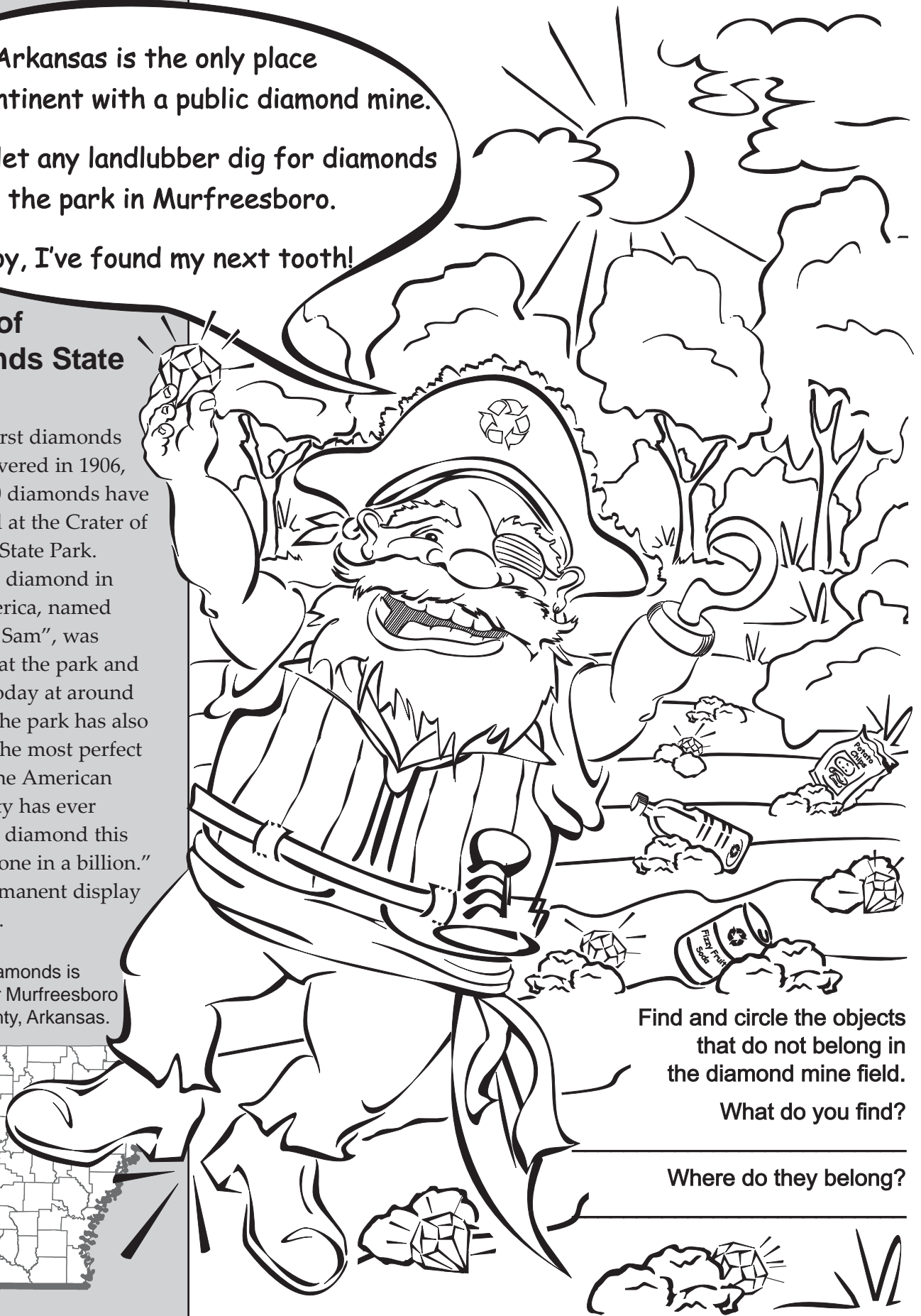
Arkansas is the only place
on the continent with a public diamond mine.
And they let any landlubber dig for diamonds
at the park in Murfreesboro.

Ahoy, I've found my next tooth!

Crater of Diamonds State Park

Since the first diamonds were discovered in 1906, over 75,000 diamonds have been found at the Crater of Diamonds State Park. The largest diamond in North America, named the "Uncle Sam", was unearthed at the park and is valued today at around \$600,000. The park has also produced the most perfect diamond the American Gem Society has ever certified. A diamond this perfect is "one in a billion." It is on permanent display in the park.

Crater of Diamonds is located near Murfreesboro in Pike County, Arkansas.



Find and circle the objects
that do not belong in
the diamond mine field.

What do you find?

Where do they belong?

Hot Springs National Park

The Hot Springs National Park area was established to protect the 47 hot springs and their watersheds. Hot Springs continues to provide visitors with historic leisure activities such as hiking, picnicking, and scenic drives. People have used the hot spring water in therapeutic baths for more than two hundred years.

Hot water from Hot Springs is good! Hot water dripping from your faucet is not good. A faucet dripping each second wastes 200 gallons of water in a year.

Why is the water hot?

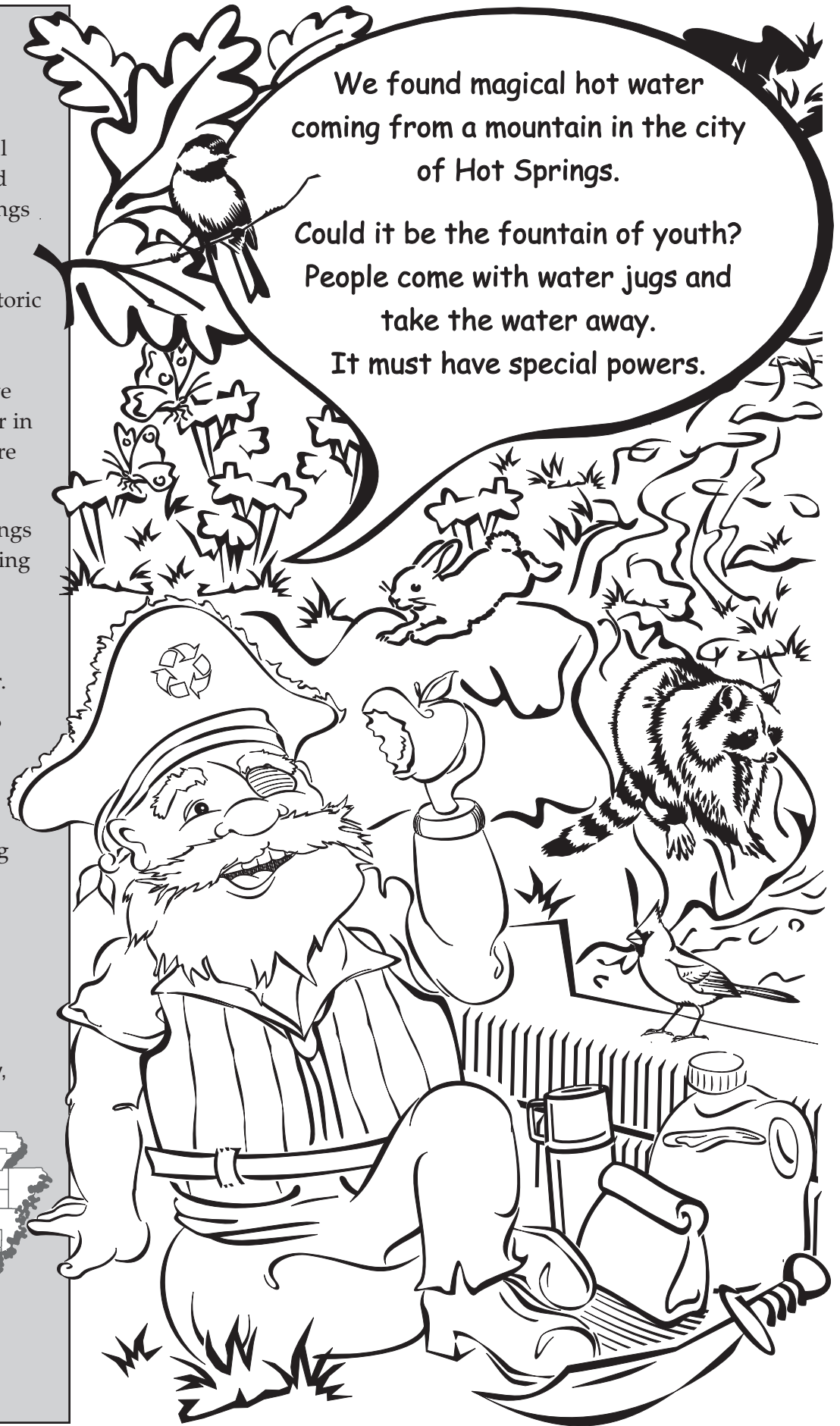
Hot springs form when water moves through tiny passages in the rock face of the earth, reaching deep into the hot crust. Upon being heated, the water is energized and returns quickly to the surface of the earth.

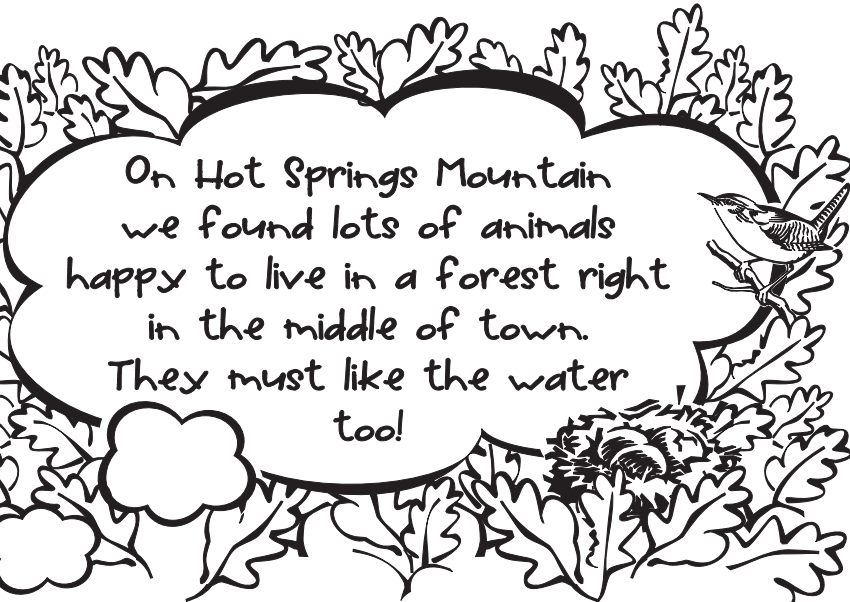
Hot Springs National Park is located in Garland County, Arkansas.



We found magical hot water coming from a mountain in the city of Hot Springs.

Could it be the fountain of youth? People come with water jugs and take the water away. It must have special powers.





On Hot Springs Mountain
we found lots of animals
happy to live in a forest right
in the middle of town.
They must like the water
too!

What do animals need?

These animals live in the forest because they have four things they need.

Unscramble the words to find out what all the animals need.

dofu _ _ _ _

rawte _ _

therles _ _ _ _

pesac _ _ _ _

All these things together make up an animal's

b i

What about you?

What do you need to live and grow?

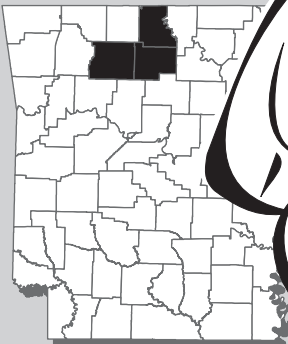


Buffalo River

The Buffalo River is one of the few remaining unpolluted, free-flowing rivers in the lower 48 states offering both swift-running and placid stretches.

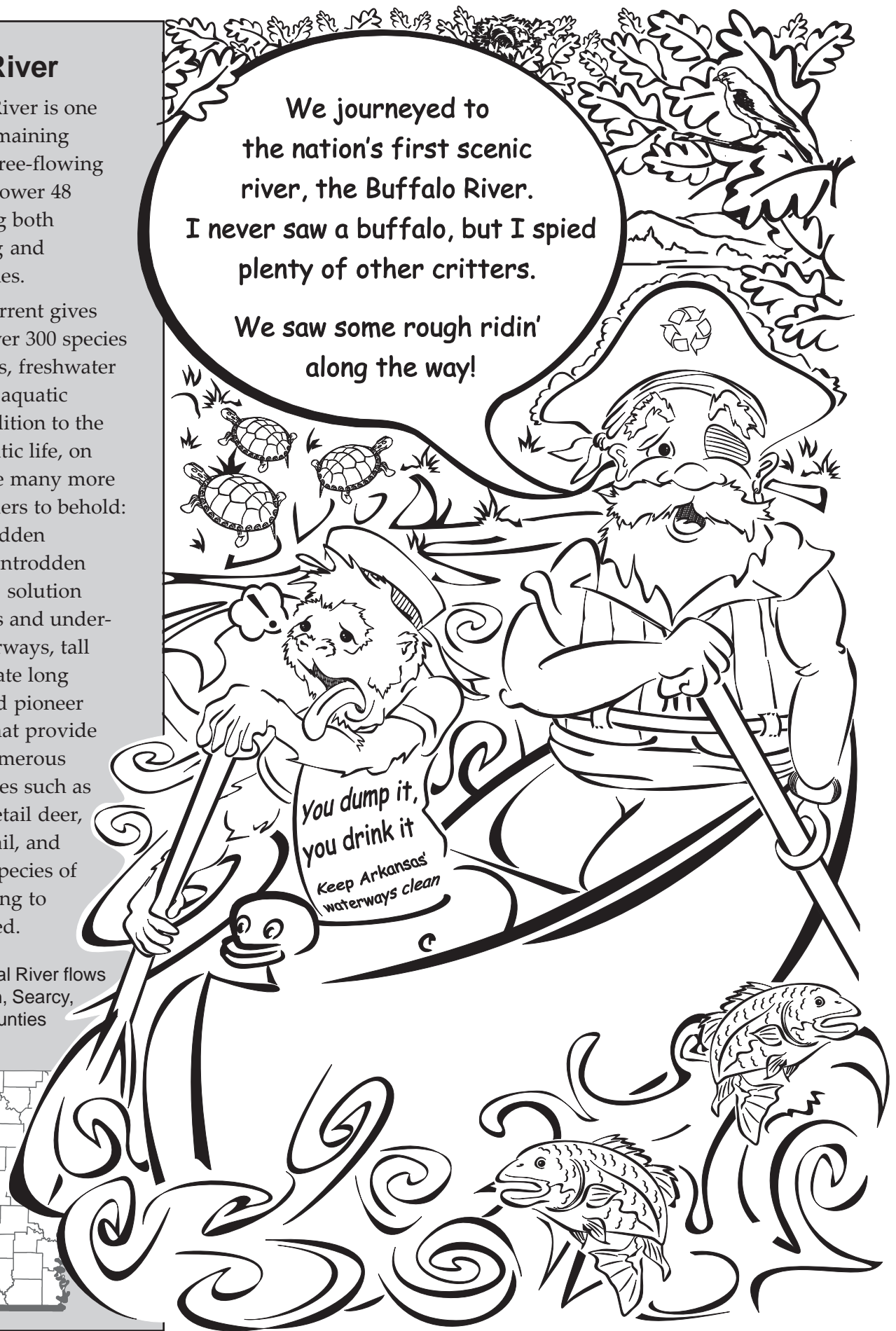
Its ancient current gives life to well over 300 species of fish, insects, freshwater mussels, and aquatic plants. In addition to the thriving aquatic life, on land there are many more natural wonders to behold: caves with hidden formations, untrodden passageways, solution pits and sinks and underground waterways, tall cliffs that create long waterfalls, old pioneer farmsteads that provide forage for numerous wildlife species such as elk and whitetail deer, bobwhite quail, and many other species of wildlife waiting to be experienced.

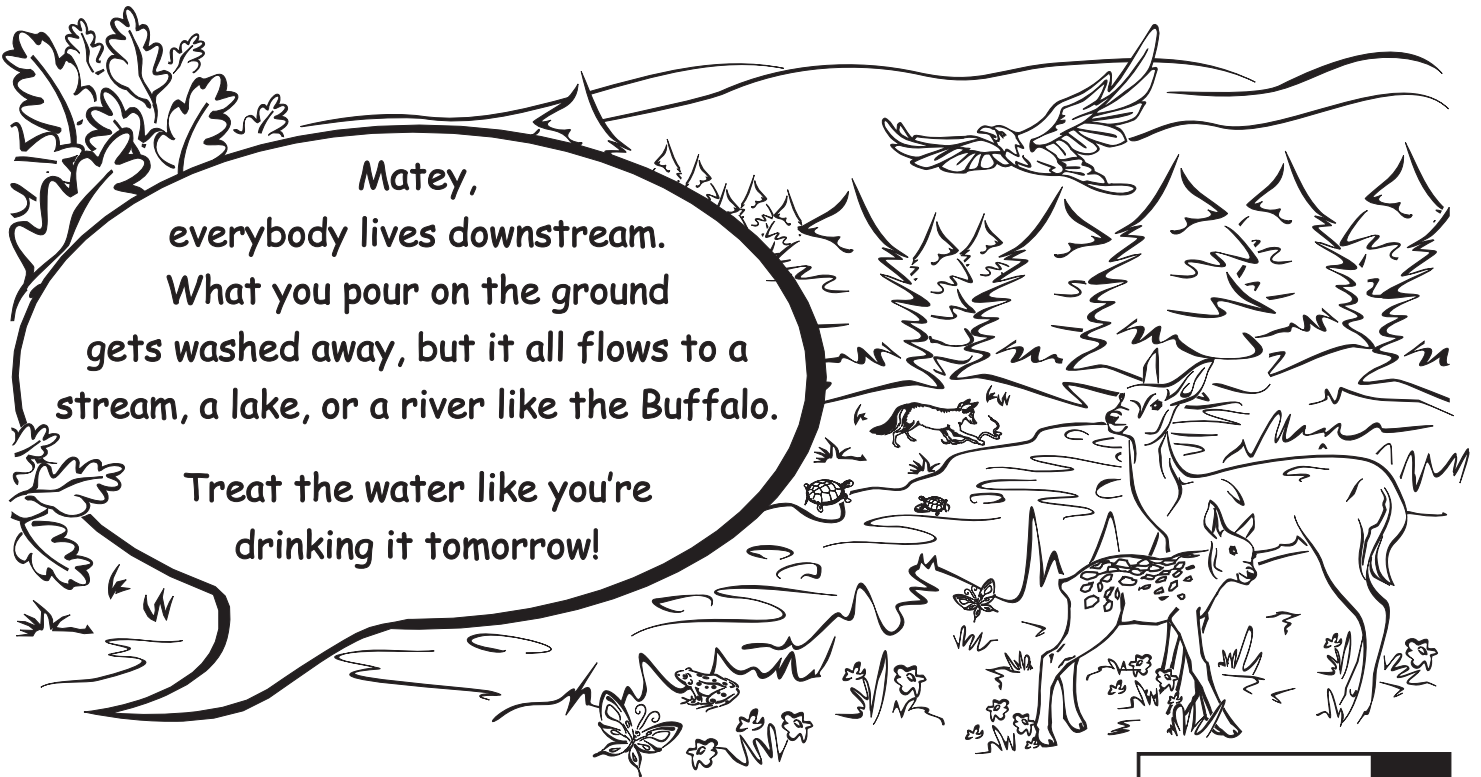
Buffalo National River flows across Newton, Searcy, and Marion counties in Arkansas.



We journeyed to
the nation's first scenic
river, the Buffalo River.
I never saw a buffalo, but I spied
plenty of other critters.

We saw some rough ridin'
along the way!





Matey,
everybody lives downstream.
What you pour on the ground
gets washed away, but it all flows to a
stream, a lake, or a river like the Buffalo.

Treat the water like you're
drinking it tomorrow!

Buffalo River Code Key Puzzle

Early residents of the Buffalo River area may have used symbols to communicate. Below are a few suggestions to follow while enjoying the Buffalo River; however, some of the words are written using symbols.

Use the symbols in the Code Key to discover the missing words.

Don't !



Respect , be quiet.




Keep your hands in the .





Pack your gear to it from water.




A= 

C= 

E= 

I= 

L= 


N= 

O= 

P= 

R= 

T= 

U= 

CODE KEY



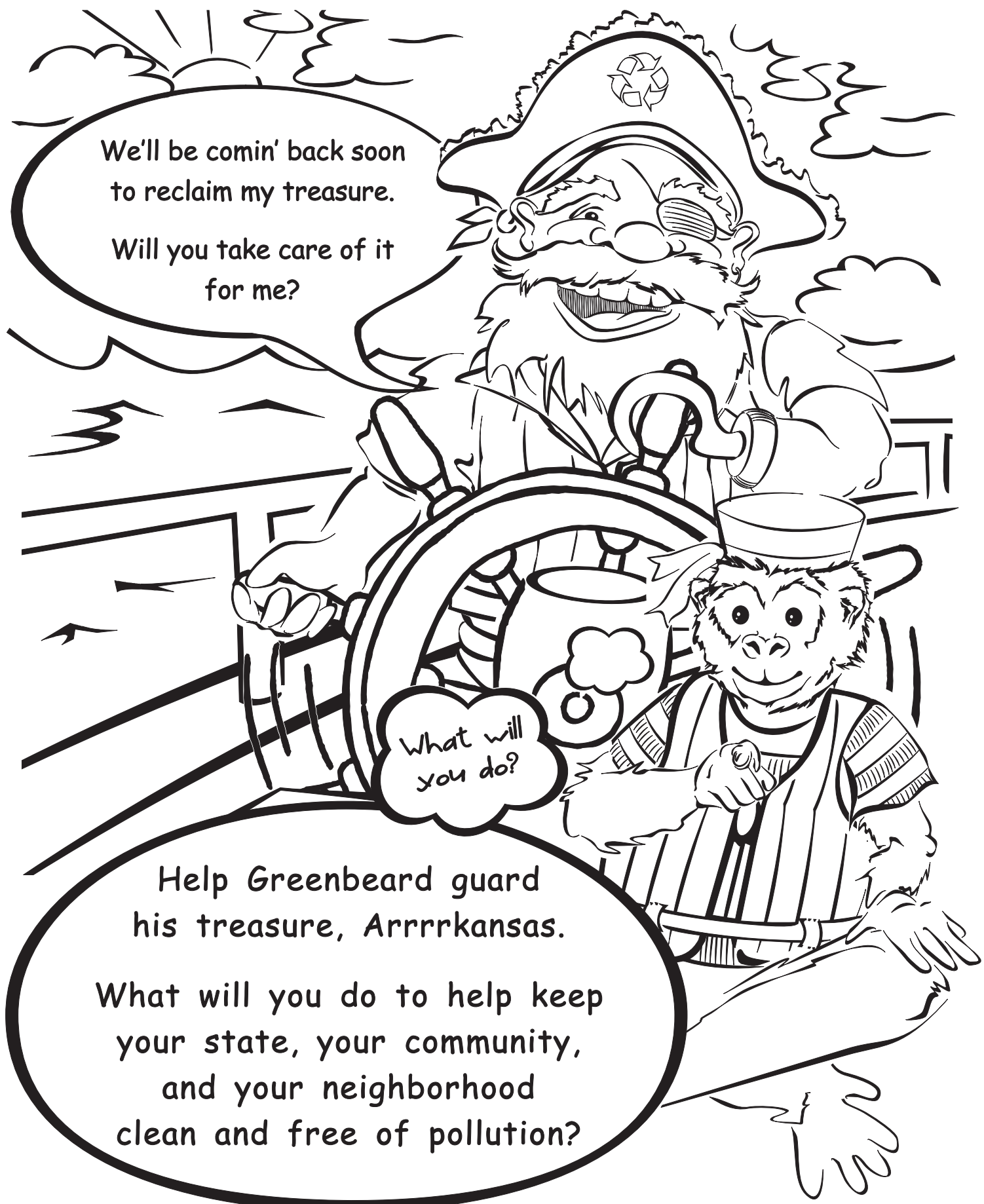
We found that Arkansas is full of wide, open spaces. You can explore dozens of parks and wilderness areas. It's enough to make a me a landlubber!

What a great adventure we had!

Where was that cave again?

And so, my friends,
you see that we discovered
treasures untold
in a land called...
Arrrrrkansas.





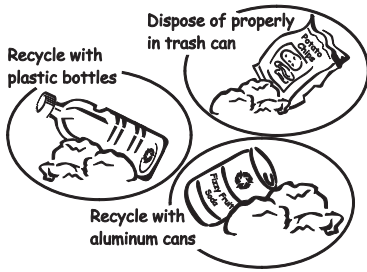
We'll be comin' back soon
to reclaim my treasure.
Will you take care of it
for me?

What will
you do?

Help Greenbeard guard
his treasure, Arrrrkansas.
What will you do to help keep
your state, your community,
and your neighborhood
clean and free of pollution?

Greenbeard's Treasure Arkansas Activities Answer Page

Page 12 - Find and circle the objects that do not belong. Where do they belong?



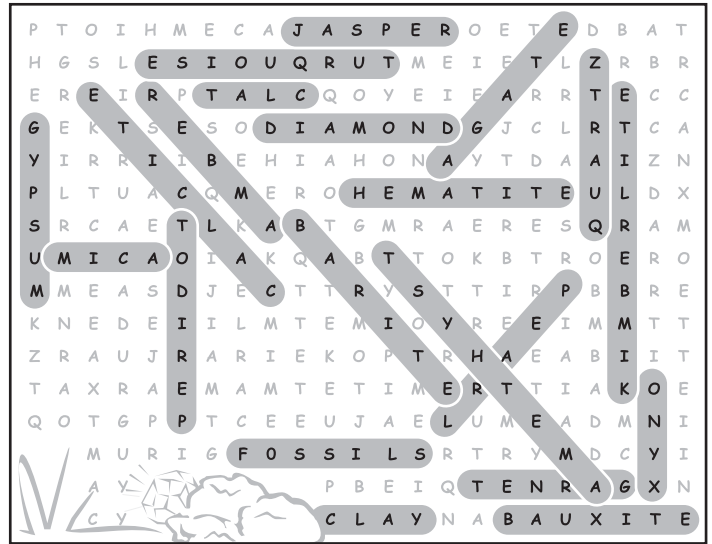
Page 15 - What do animals need? Word Scramble

dofu f o o d
 rawte w a t e r
 therles s h e l t e r
 pesac s p a c e

All these things together make up an animal's

h a b i t a t

Page 13 - Arkansas Rocks and Minerals Word Search



Page 17 - Buffalo River Code Key Puzzle

Don't L I T T E R!

Respect N A T U R E, be quiet.

Keep your hands in the C A N O E.

Pack your gear to P R O T E C T it from water.

Page 8 - Toltec Mounds Word List Puzzle

The tallest mound at Toltec, rises 49 feet above the surrounding delta flatlands.

The Native Americans who lived at Toltec are known as the Plum Bayou people.

The Plum Bayou people built sturdy houses and farmed as well as fished and hunted.

Artifacts found at the site include ceramics and stone tools.

Always set an example by not littering, no matter where you are.

By creating less waste, we take up less space on the planet and leave more room for other creatures.

It takes almost 100 years for an aluminum can to break down in the environment but it can be easily recycled into a new one.

Page 9 - Arkansas Homegrown Word List!

In an Arkansas garden:

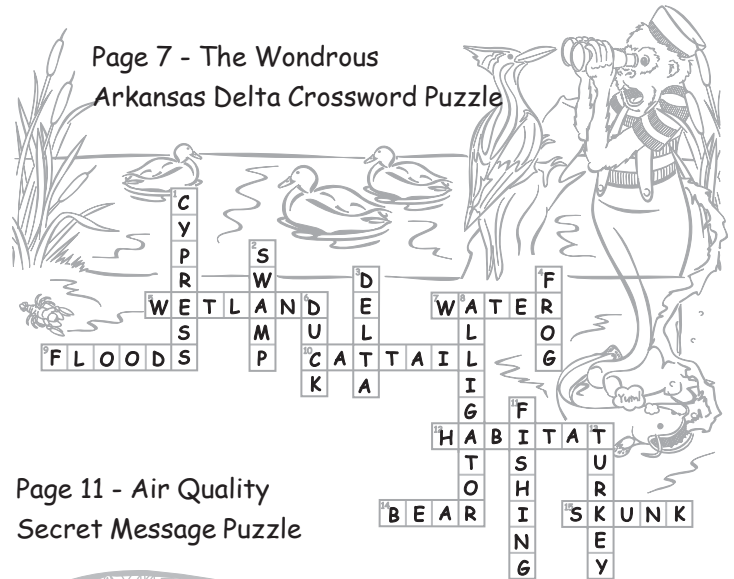
Feed soil with compost you can make from leaves and food scraps.

Prevent erosion by terracing hills.

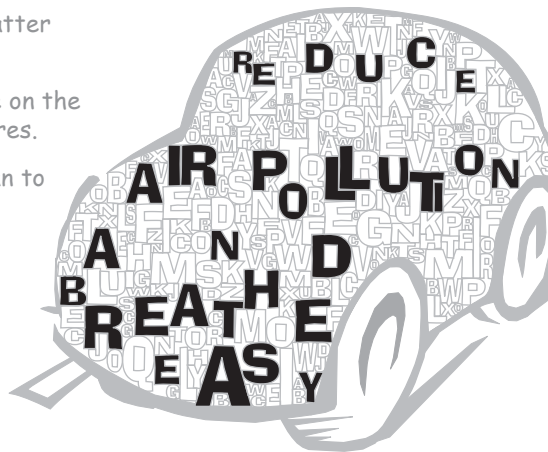
Seeds need soil and water to grow.

Lots of sunlight helps plants grow tall.

Page 7 - The Wondrous Arkansas Delta Crossword Puzzle

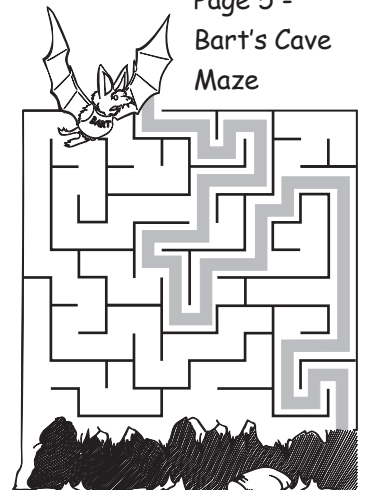


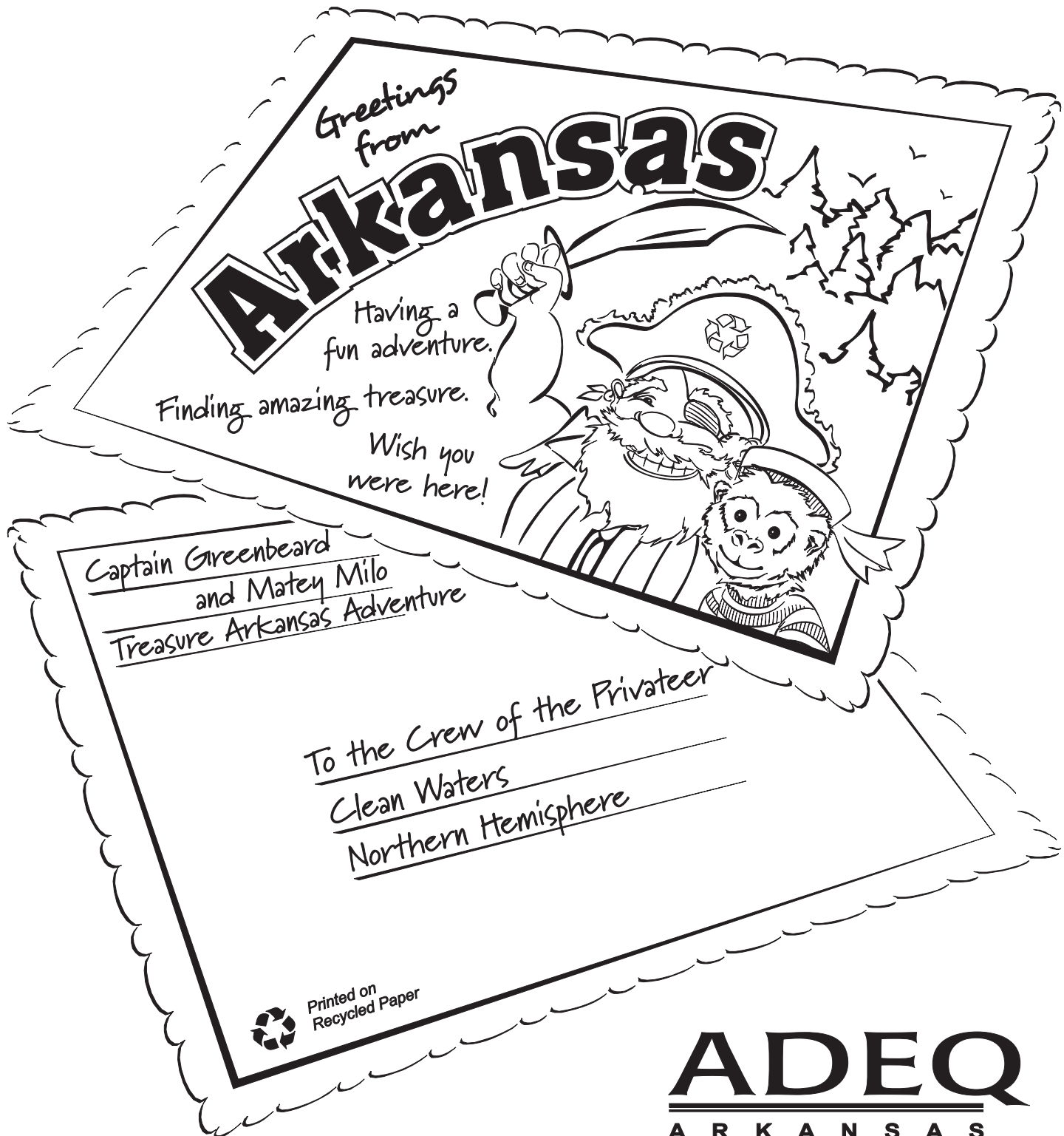
Page 11 - Air Quality Secret Message Puzzle



REDUCE AIR POLLUTION
AND BREATHE EASY

Page 5 - Bart's Cave Maze





Captain Greenbeard
and Matey Milo
Treasure Arkansas Adventure

To the Crew of the Privateer
Clean Waters
Northern Hemisphere

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