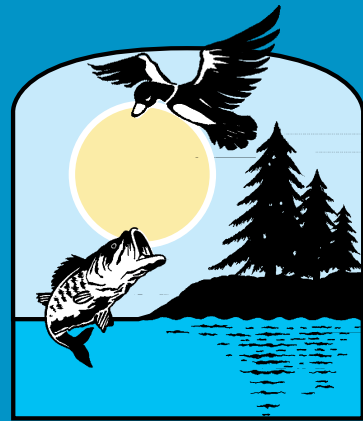


Message in the Bottle

A River
Adventure



RENEW OUR
RIVERS®



Message in the Bottle - A River Adventure

Lesson Plan

Background

On May 5, 2001 Charlotte Phifer, along with other volunteers, found an old soft drink bottle during a Renew the Coosa cleanup on H. Neely Henry Lake. Inside the plastic bottle was a note, dated May 6, 1982, with instructions about who to contact if it was ever found. It turned out a young boy had placed the bottle and message in Terrapin Creek, a tributary of the Coosa River in Cherokee County. The message in the bottle had traveled 58 miles over 19 years until it was plucked from the river near Alabama Power's Plant Gadsden.

Remarkably, it was at Plant Gadsden where the Renew the Coosa campaign was conceived. Charlotte's husband, Gene, a plant employee, organized the first cleanup in 1999. The next year he organized a larger cleanup. Soon the cleanups spread to other waterways, and Renew the Coosa became Renew Our Rivers. Today, Renew Our Rivers volunteers are cleaning waterways in Alabama, Georgia, Florida and Mississippi, and have removed millions of pounds of trash and debris.

While Gene Phifer envisioned river cleanups, Charlotte Phifer saw an educational opportunity. Charlotte realized the message for children - do not litter - was not in the bottle but the bottle itself. The bottle, and its 19-year journey in the river, became the catalyst for the Message in the Bottle anti-litter environmental education program.

This coloring book demonstrates the ways that litter can get into our waterways and stresses the benefits of a clean environment. Thanks to Flinda Hill and Tracy Heggins of Mississippi Power for development of the lesson plan that follows the storyline. And special thanks to Tim Towns of Alabama Power for his drawings that bring to life the characters in "Message in the Bottle - A River Adventure."

Teaching Guide

Good morning everyone! We are going to learn about litter prevention today and we are going to use a coloring book that Alabama Power and Keep Etowah Beautiful, an affiliate of Keep America Beautiful, gave to us. They care about our environment and want to help children learn how to take care of our world. Today, we're going to talk about water and litter. To start our program, let me tell you about some of the litter I saw today.

(Tell the class about litter you saw on your way to school; mention litter in ditches, along the side of the road, in yards, etc.) Now let's talk about litter you saw.

I've passed out the Renew Our Rivers coloring books and now I want you to turn to the first page. ***(Show workbook page.)***

You'll see two children playing outside on a sunny day near a river. Let's talk about the different animals we see and how they use the river. What about the trees and the grass?

(Explain the different ways that the animals and plants use the river as a resource: Frogs for swimming, eating and raising their families, trees and grass for nutrients, birds for bathing and drinking, boys and girls for drinking, playing, swimming and watching nature, etc. Call on students that raise their hands and offer suggestions. Write the different ways on the blackboard. Be sure to include: bathing, drinking, cooking, cleaning, agriculture, power generation, transportation, industry, recreation ... and anything else they think of!)

Thank you. That was a long, very good list of the ways we use water. We depend on water for so many things in our lives that we often take clean water for granted. Did you ever stop to think just how much water is available on Earth for us to use?

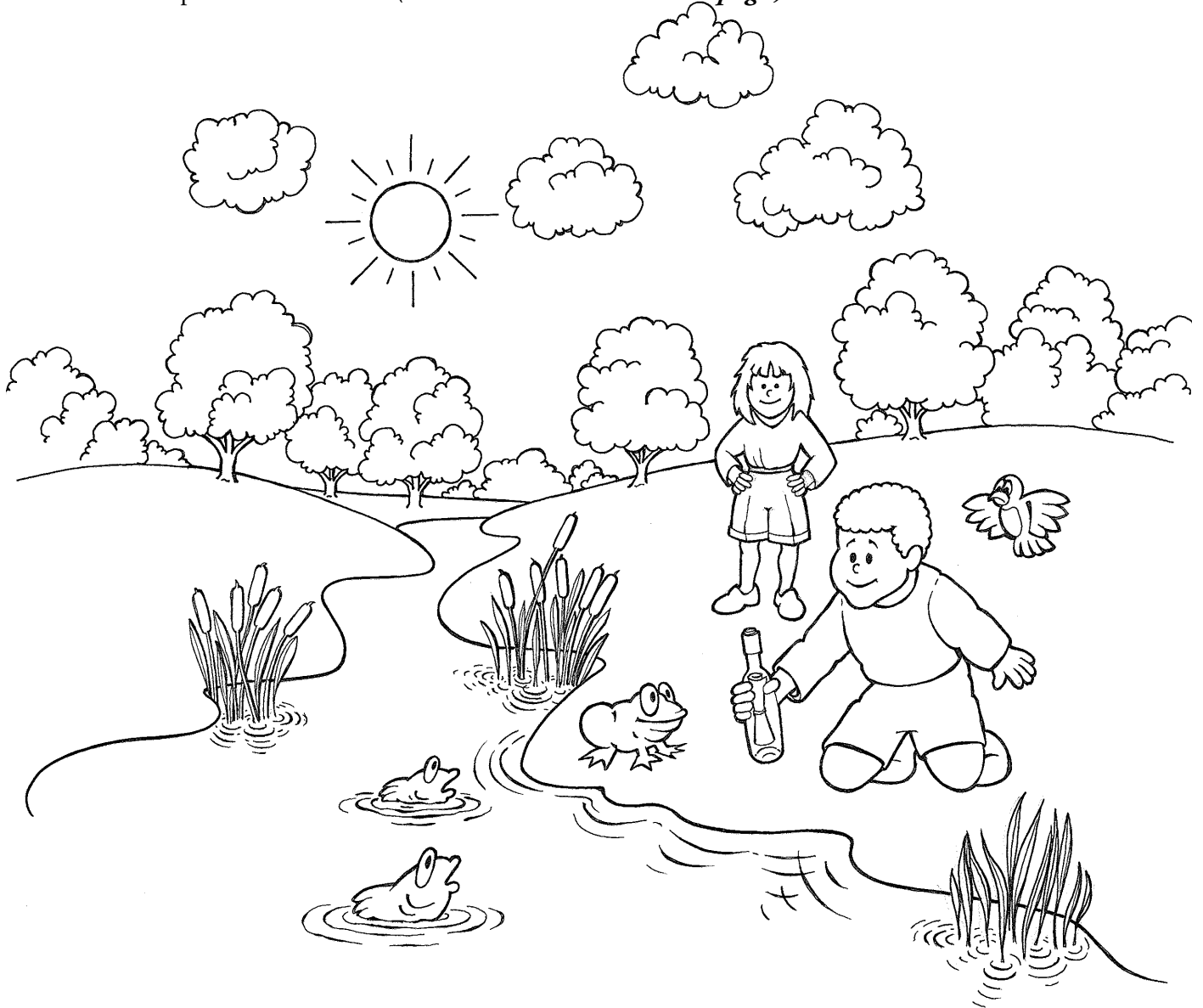
(Gesture accordingly to get all students to rise.) Let's pretend that all of you are ... WATER. You represent all the water on Earth. Now, I'd like you three students to remain standing ... ***(choose three students at front of room)*** and everyone else may sit down. ***(Direct everyone else to sit down.)*** These three students still standing represent FRESH WATER. All the rest of you represent SALT WATER. Salt water makes up 97 percent of all water on Earth. As you know, human beings can't live off of salt water. In fact, only 3 percent of the entire world's water is FRESH WATER that human beings might be able to use. But now, I'm going to have to ask one of you to sit down. ***(Direct one of the three students still standing to sit down.)***

He/she who just sat down is fresh water, but we can't drink it. They are FROZEN water, existing as glaciers, icebergs and polar ice caps. Because this water is frozen, we can't use it for anything other than sightseeing. OK - we still have 2 percent left, unfortunately, I'm going to have to ask ***(pick one of the 2 remaining students)*** to sit down. Can you guess what type of fresh water he/she represents? They represent groundwater. Some groundwater we can use and we use it in a variety of ways. But a lot of groundwater is very, very deep underground and we can't get to it. Now we have one person left standing ... out of all the students in this class. ***(Turn to the last standing student.)***

Out of this whole room full of water, you represent the only water that's available for us to drink: about one percent of the world's supply! (*Allow last student to sit down, thank them.*) Discuss whether or not they realized this fact. Stress the importance of taking care of the water that is available for our use and consumption. You may also ask them if we get any new water when it rains ... discuss how we do not and briefly touch on the water cycle. With such a small amount of water available for people to use, you'd think we'd all be very careful not to waste or pollute our water. But sometimes, people are thoughtless, or careless, or they just don't realize what they are doing to our rivers, lakes and streams.

Lisa and David, the children in the coloring book, have written a note. They want to put the bottle in the water and see if some day, someone will get their note. They are not trying to litter; they just want to try an experiment.

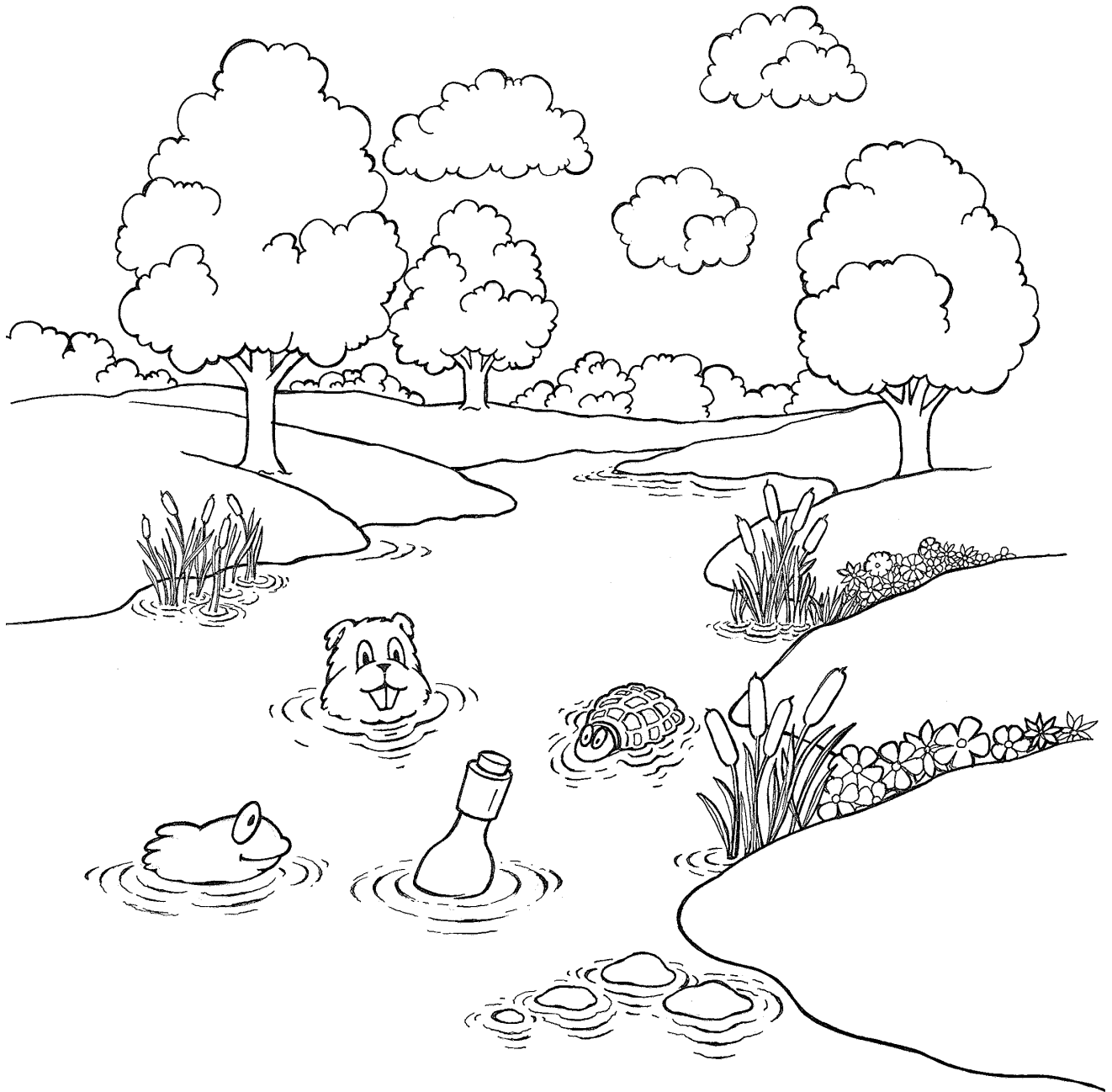
Now, I want you to do the work of scientists as you figure out what is polluting the water in our rivers and where it comes from. Turn the page and let's see what adventures lie ahead for the "message in the bottle." Let's find all of the things that don't belong in the water. Let's try to think of different ways these things could hurt the animals that live in and depend on that water. (*Ask the children to turn the page.*)



Lisa and David put a message
in a plastic bottle and place it in the river.

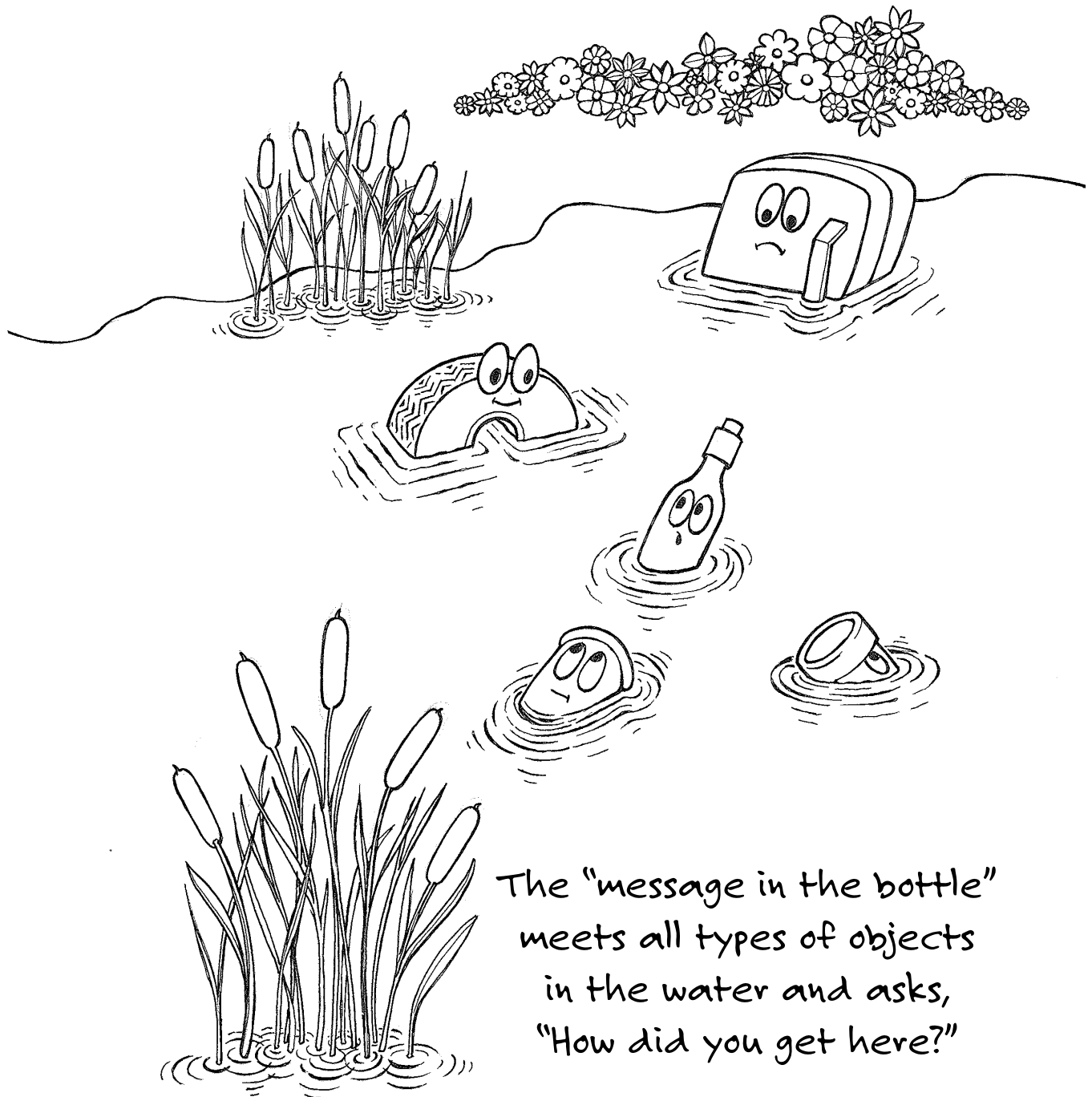
(Ask the children to name all of the objects in the river, on this and the next page, that do not belong there. Ask them what kind of harm they can do to the water and the animals that live there.)

Have all of you future scientists finished now? Have we named all of the things in the water and talked about how they are polluting the river? The "message in the bottle" asks all of the other objects how they got there.



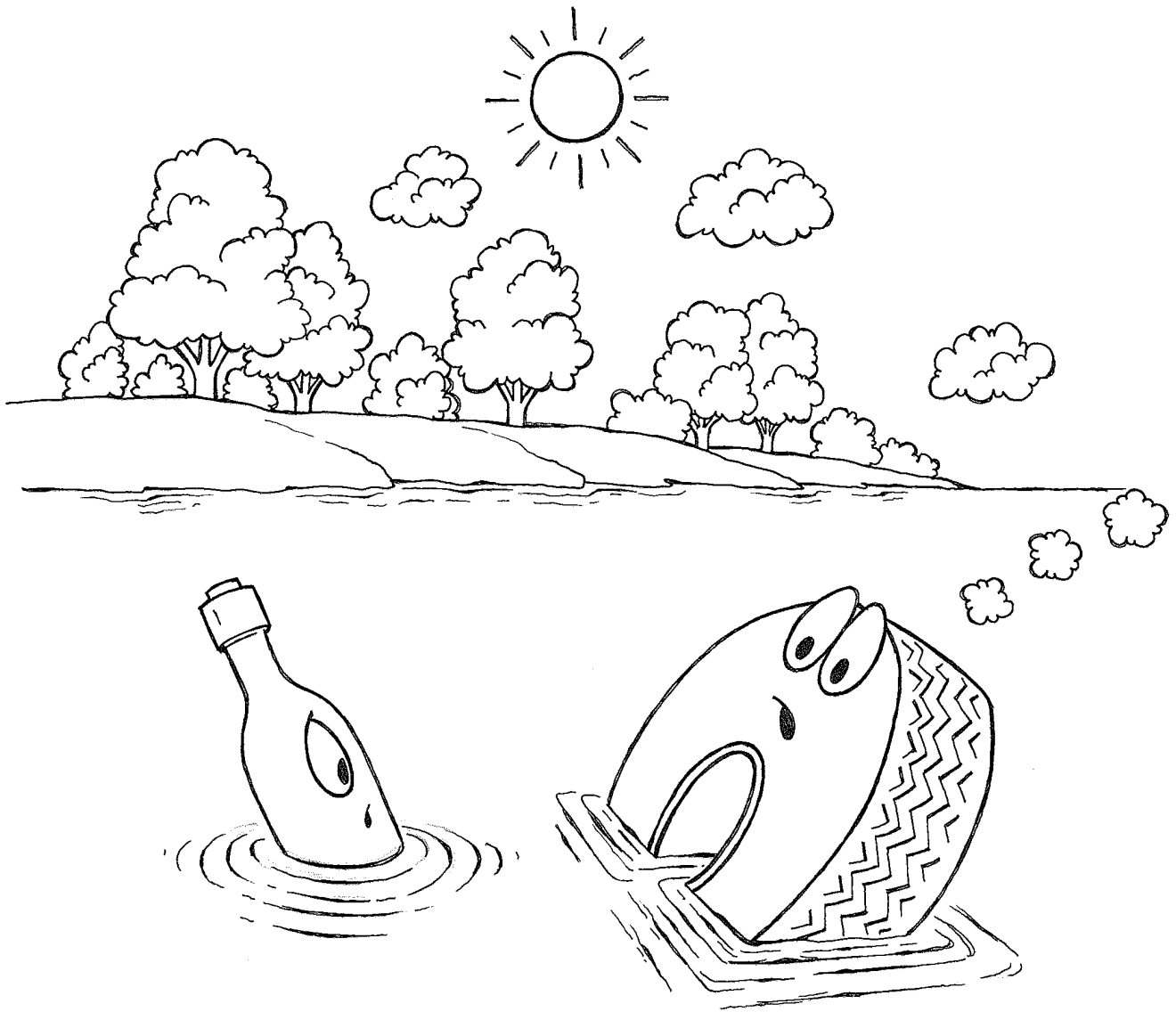
They wonder what adventures lie ahead
for their "message in the bottle."

(Ask the children to turn the page.)



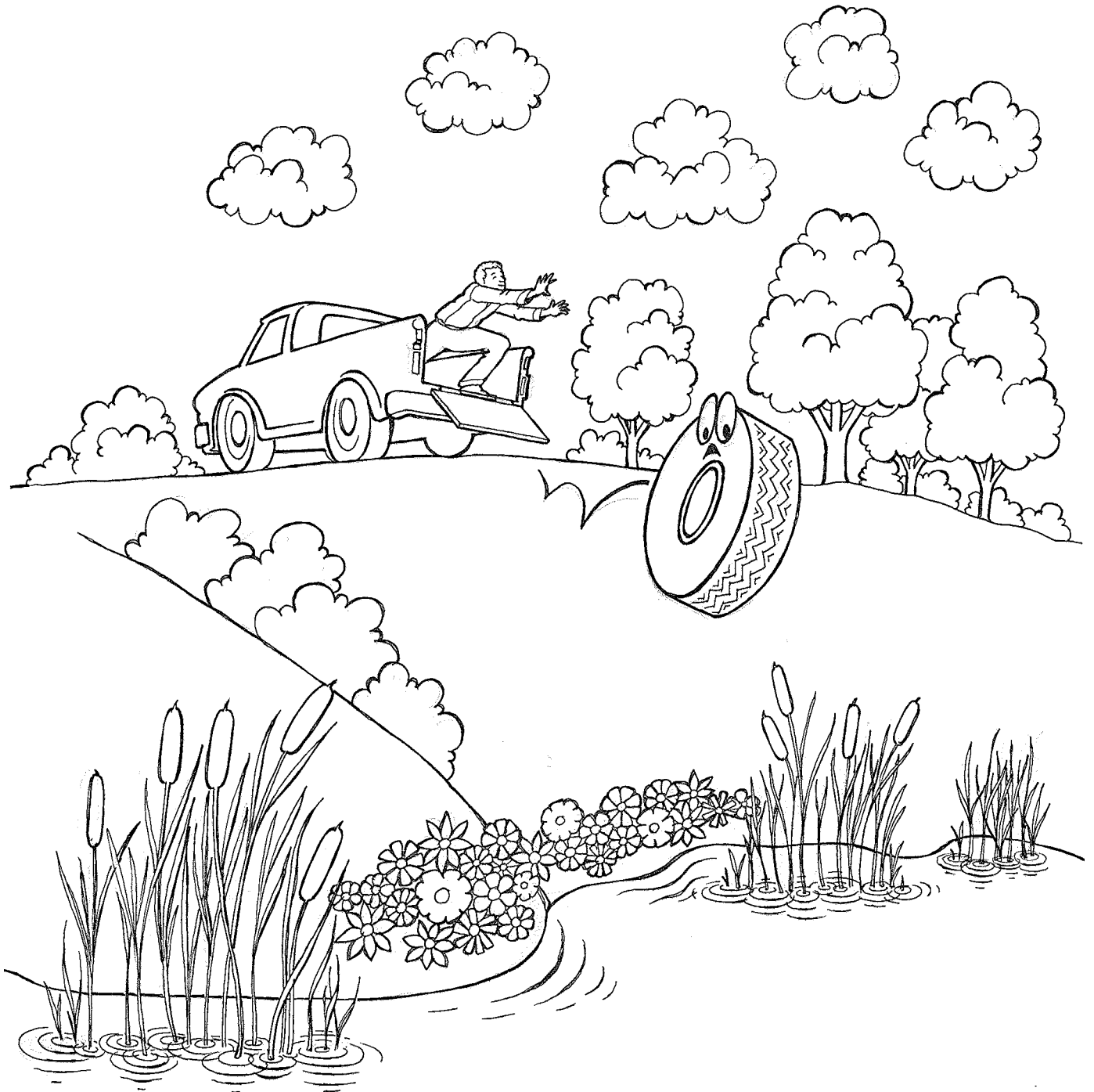
The "message in the bottle"
meets all types of objects
in the water and asks,
"How did you get here?"

When the message asked the tire how it got there, what was its answer?

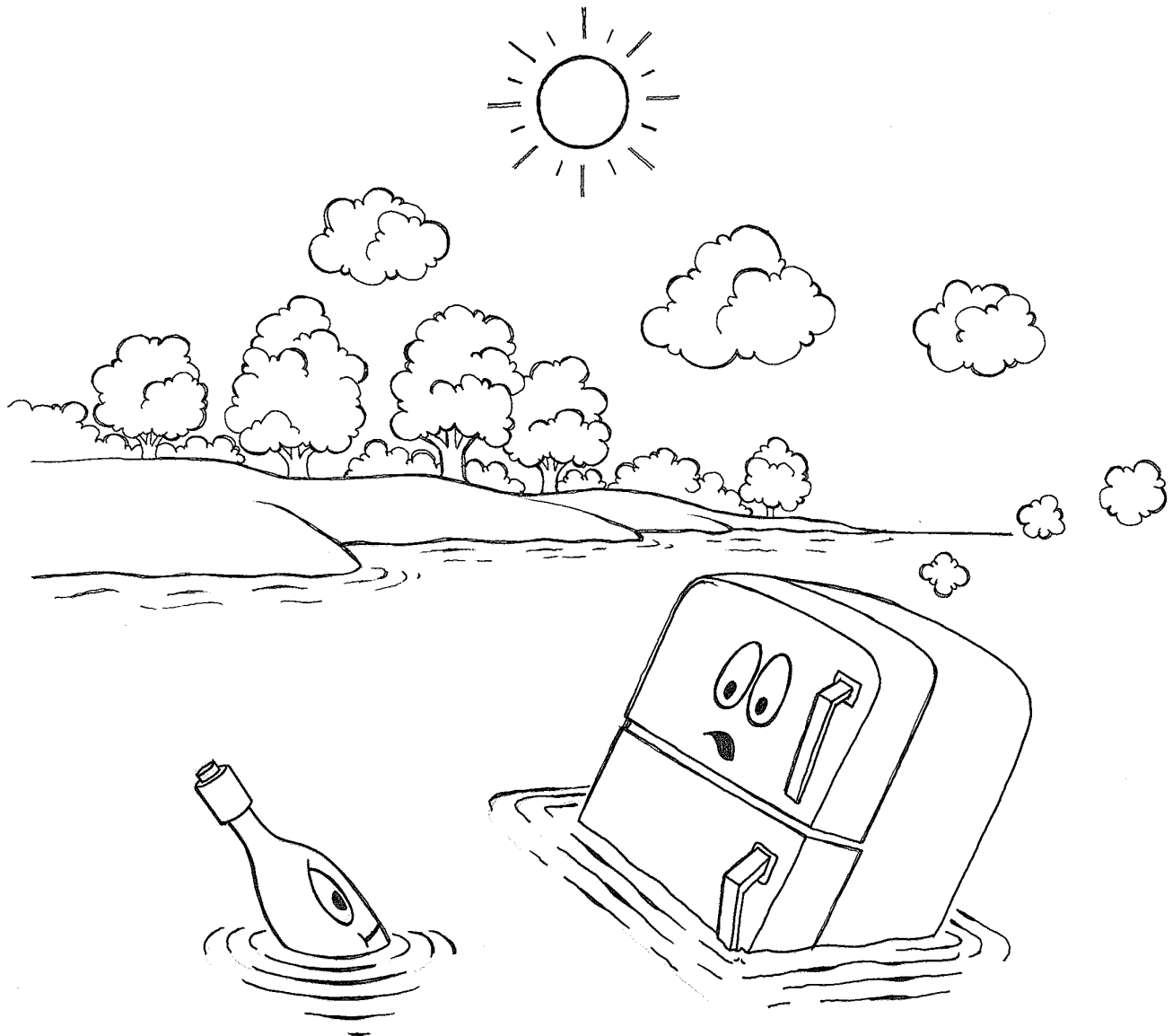


The tire said,
"I was rolled into the river."

(Ask the students if they can figure out what else the man could have done with the tire: he could have left it at the tire store, for instance. Discuss with the students that people litter because they do not realize the harm it does. Many adults need to learn about litter and the problems it causes our environment. Most people do not litter to be mean but because they have not been taught about litter. Ask the children to turn the page.)



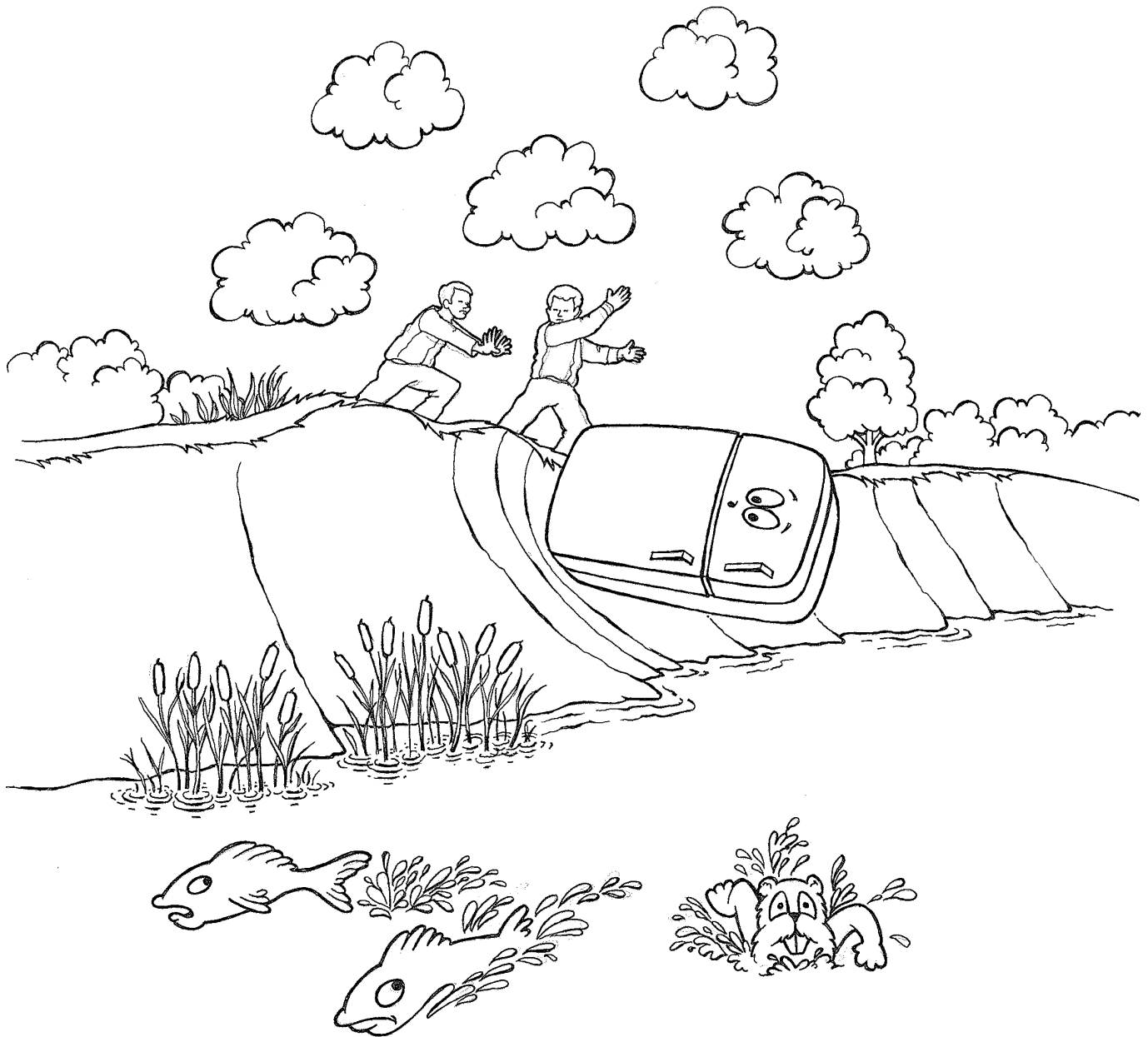
What did the refrigerator say when the bottle asked it how it got into the river?



The refrigerator said,
"I was dumped off the
bank into the river."

(Discuss with the students that there are places we can take our old refrigerators where they will be disposed of properly; an example is to have the store take it away when they bring a new one or take it to household hazardous waste recycle day. Discuss how the fish and beaver are afraid. Discuss how wildlife is harmed by eating litter, how littering is irresponsible and against the law.

An example of harming wildlife would be when an endangered sea turtle mistakes a deflated balloon, plastic bag or latex glove for its favorite food: a jellyfish. Once it eats the plastic, it generally will die. Another example is when a plastic six-pack ring gets around the neck of a turtle or bird, killing them or maiming them. Ask the children to turn the page.)



The can and the cup said they were washed into the river from a roadside ditch. *(Ask the children how they think trash in a ditch could be washed into the river. Have them discuss what types of litter they see in the ditches and what it looks like on the river when it rains. Make sure that they mention dirt as one of the pollutants that is washed into the river.)*

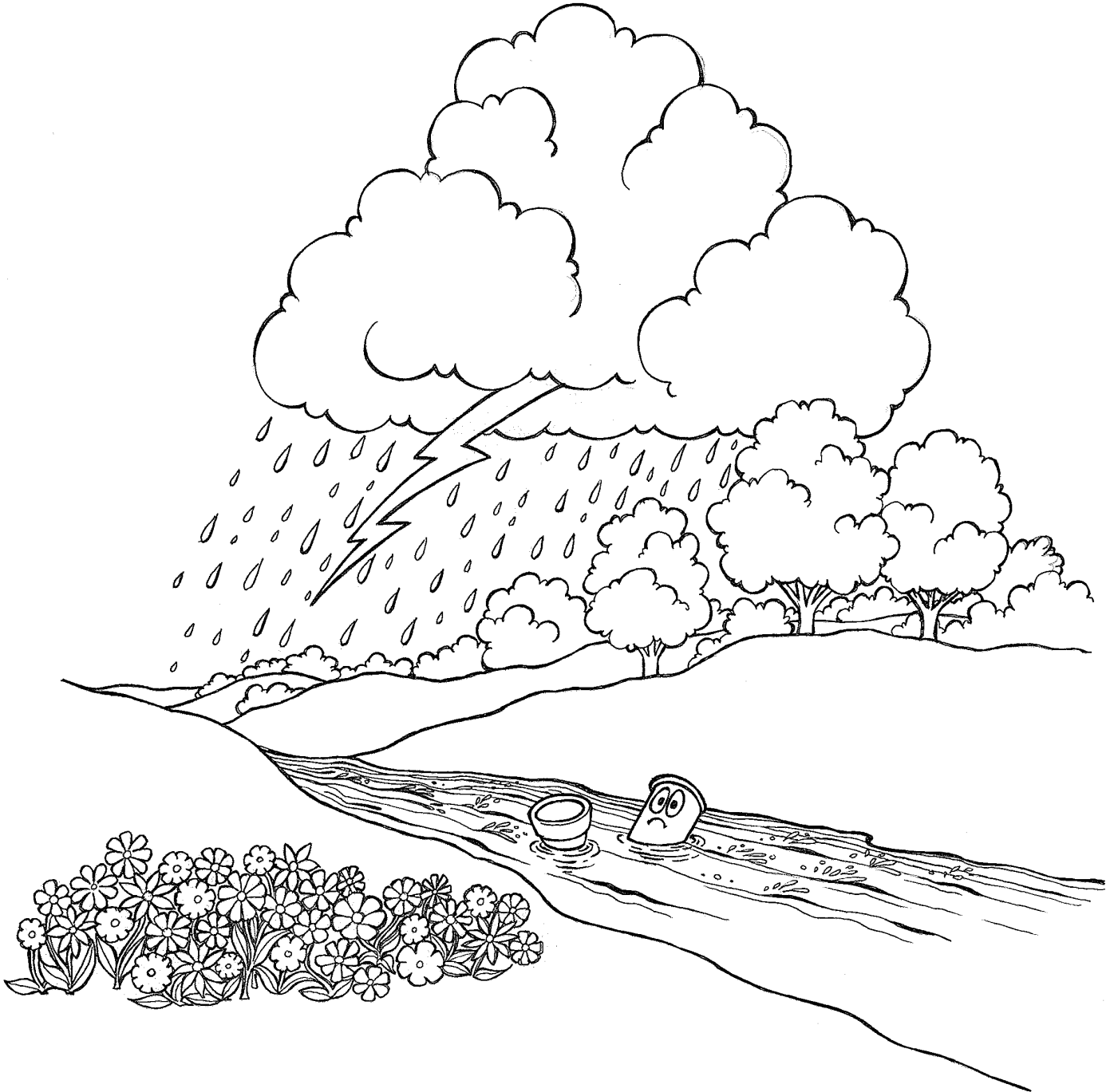


The can and the cup said,
"We were washed from a
roadside ditch into the river."

When it rains and washes dirt into the river, what happens? It becomes very cloudy, doesn't it? If you were a fish trying to breathe in this water, do you think it would be very easy? What if you were a plant trying to get sunlight in this water, would the dirt in the water make it more difficult? Pretend you are a mother fish and you just laid eggs in a nest you made, then mud washes in and covers your eggs. Do you think they are going to hatch? (*Discuss why erosion is a major problem – explain erosion to them if they don't already know. Erosion is caused when rainwater runs over unprotected soil. The result is deep ruts, loss of soil and real estate. Some houses in California actually slide off cliffs due to erosion when it rains. When dirt enters a stream, it causes lowered oxygen levels, cloudy water and shallow stream beds where it used to be deep.*) How can we prevent our topsoil from running off into our rivers?

(*Don't destroy plants along the riverbank, replant areas that have been stripped of vegetation, farmers can practice no-till farming, builders must use silt fencing, etc.*)

Good work! You've been a good group of scientists. (*Ask the children to turn the page.*)

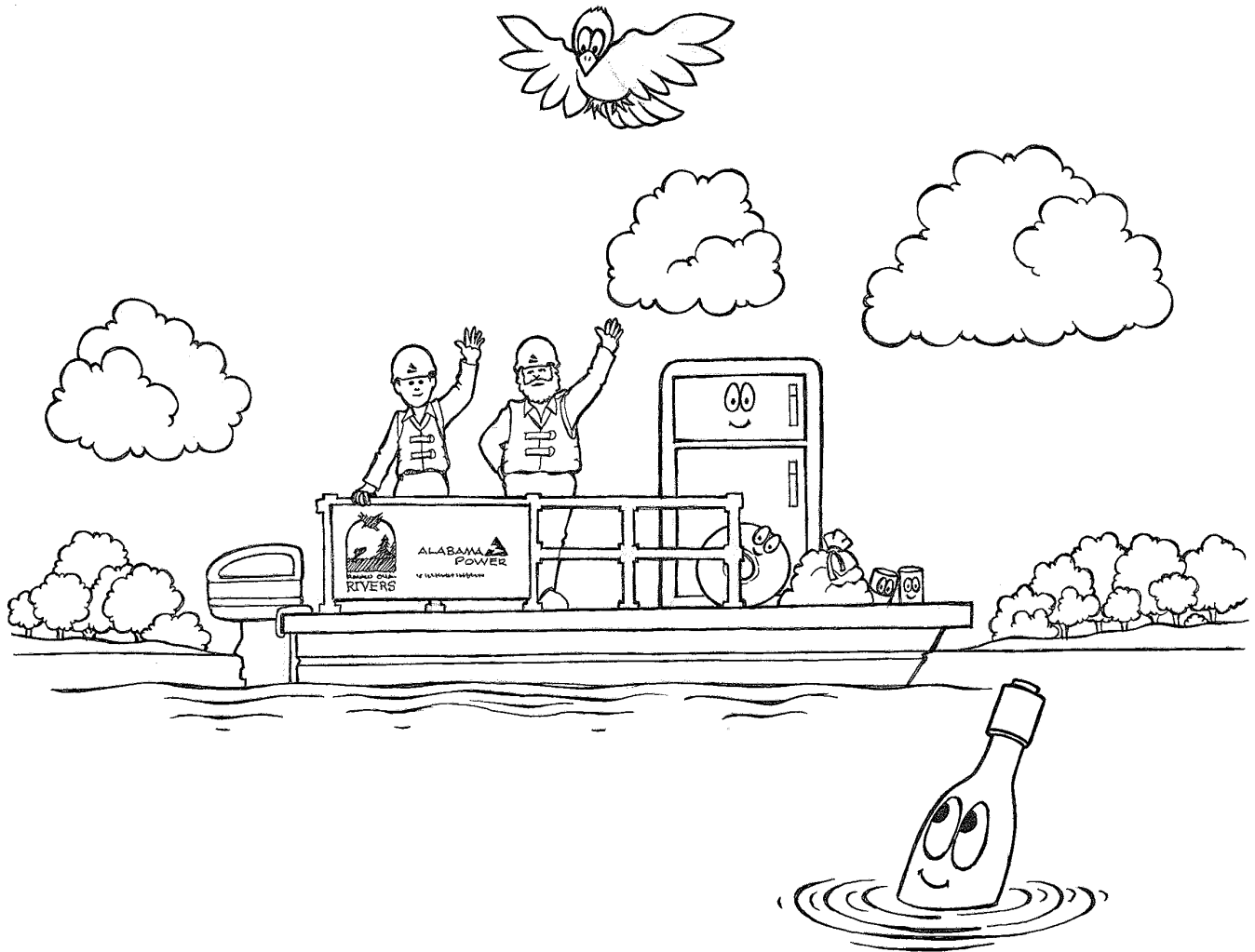


This is called the “Renew Our Rivers page.” It will help you understand what we can all do to help with the litter problem. We’ve learned about the causes and solutions, and until everyone learns, we need to do our best to clean up litter. On this page, everyone is watching and helping the Alabama Power Renew Our Rivers volunteers. They are having a river cleanup. This could be on an island, in a lake or on a river or ocean near your house. The “message in the bottle” sees all of his new friends being taken from the river to be recycled and they were all very happy!

Everyone watches as the
Renew our Rivers
cleanup volunteers approach.



(Ask the students if they have ever seen anyone picking up litter. Also, ask if they ever put plastic bottles or cans in a special container at home to put out for the sanitation workers to pick up. Ask the students to turn the page.)



The "message in the bottle"
saw all his friends being taken
from the river to be recycled.
They were all very happy.

On the last page, the “message in the bottle” has washed all the way down the river to the seashore and is found by two girls named Melissa and Alana.

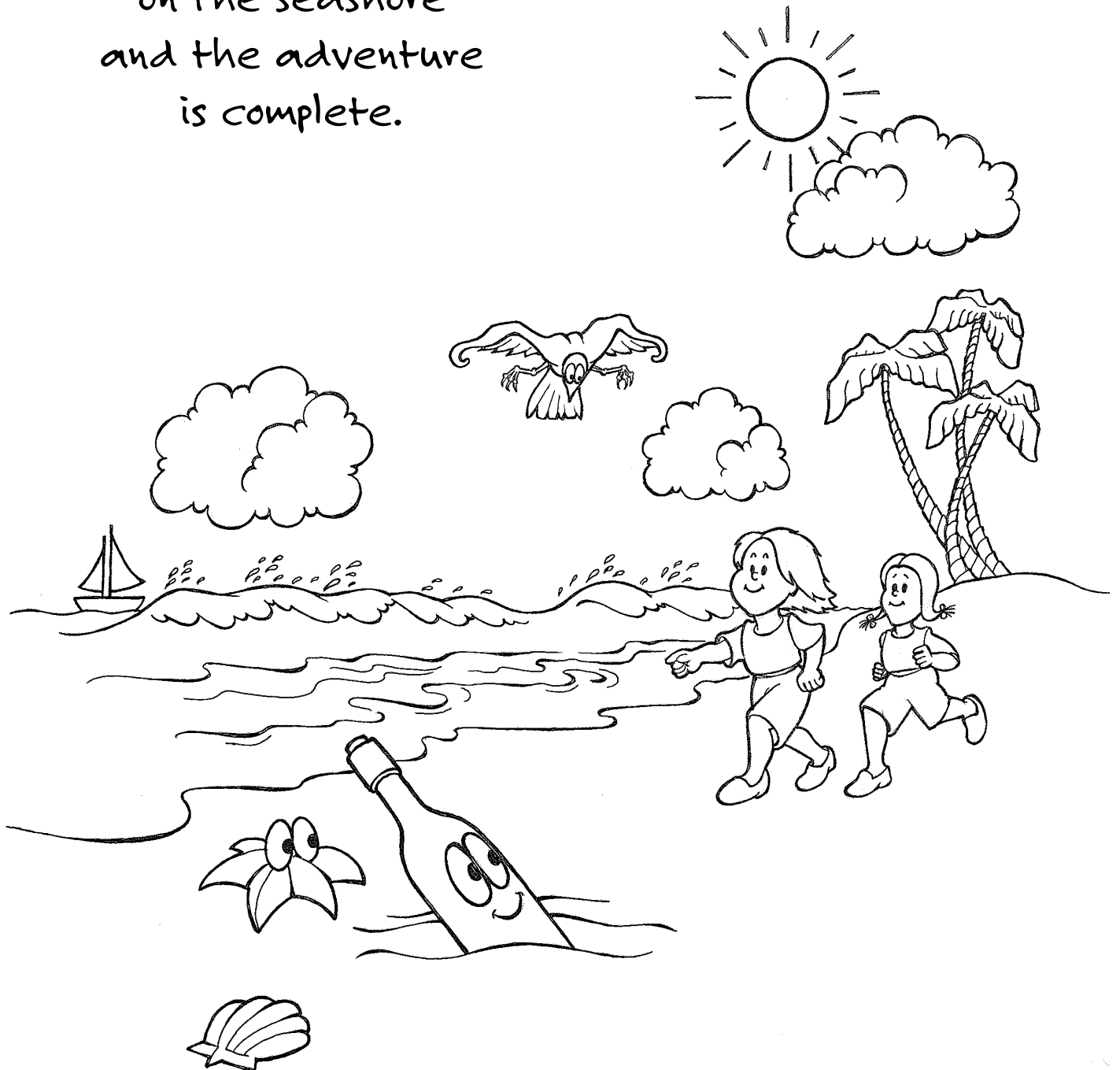
Remember, preventing litter and water pollution is everybody’s business and you can help.

Let’s review what we’ve learned. Who can tell me some ways to take better care of our water?

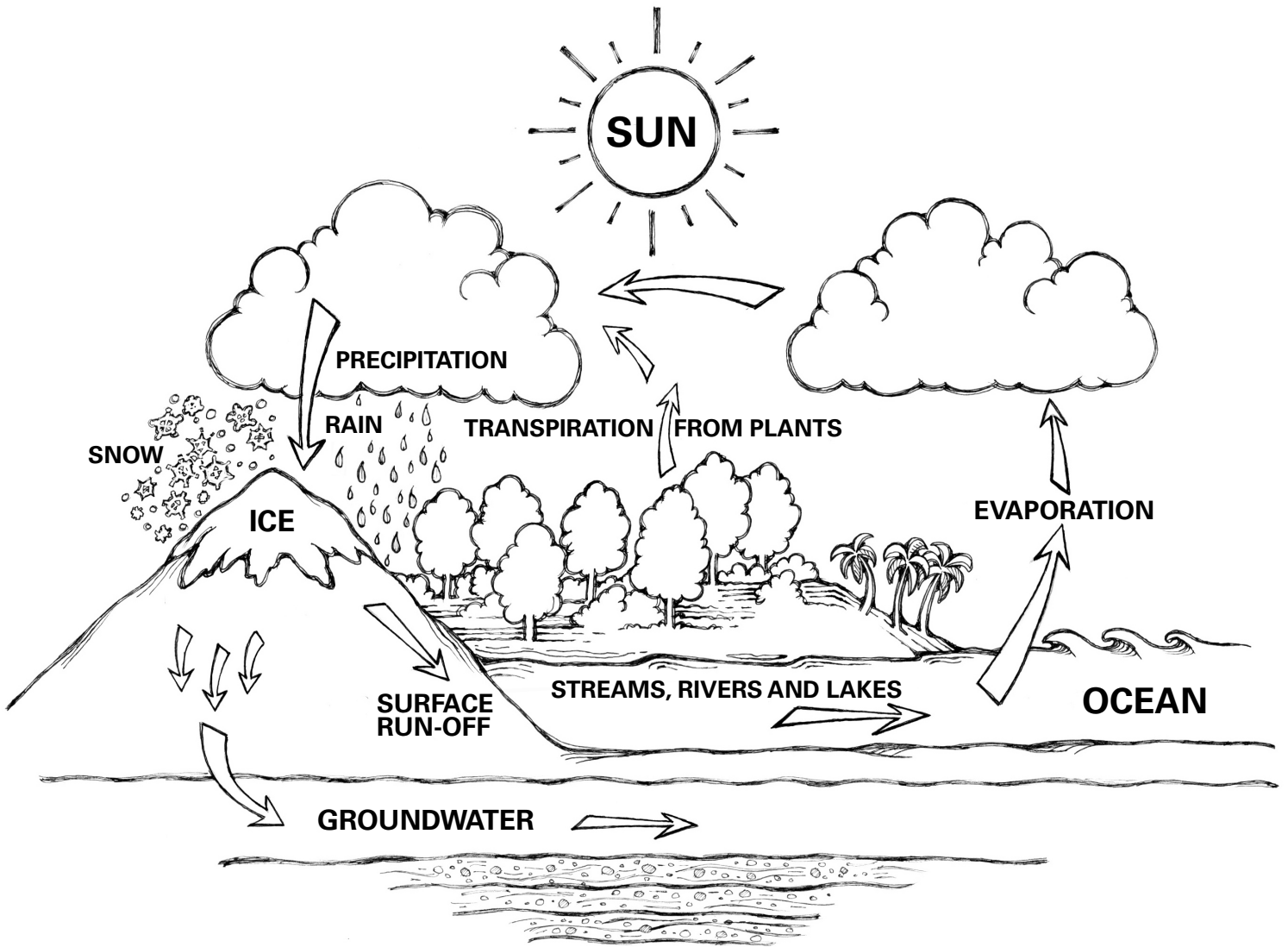
(Accept wide range of answers in brief discussion: Don’t dump paint or oil into rivers, beaches or drains, don’t use too much detergent, turn the water off when you’ve finished using it, etc.)

GREAT! I think you’ve learned a lot from our discussion today. Keep up the good work! Thank you very much and remember: only people can prevent litter!

Melissa and Alana
pick up the bottle
on the seashore
and the adventure
is complete.



The Hydrologic Cycle



Message in the Bottle

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To learn more about the Message in the Bottle program, contact Keep Etowah Beautiful at 256-549-0900. To see the actual bottle, visit the Water Course, Alabama Power's environmental education center in Clanton. For information about the Water Course or the Renew Our Rivers campaign, visit www.alabamapower.com.



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