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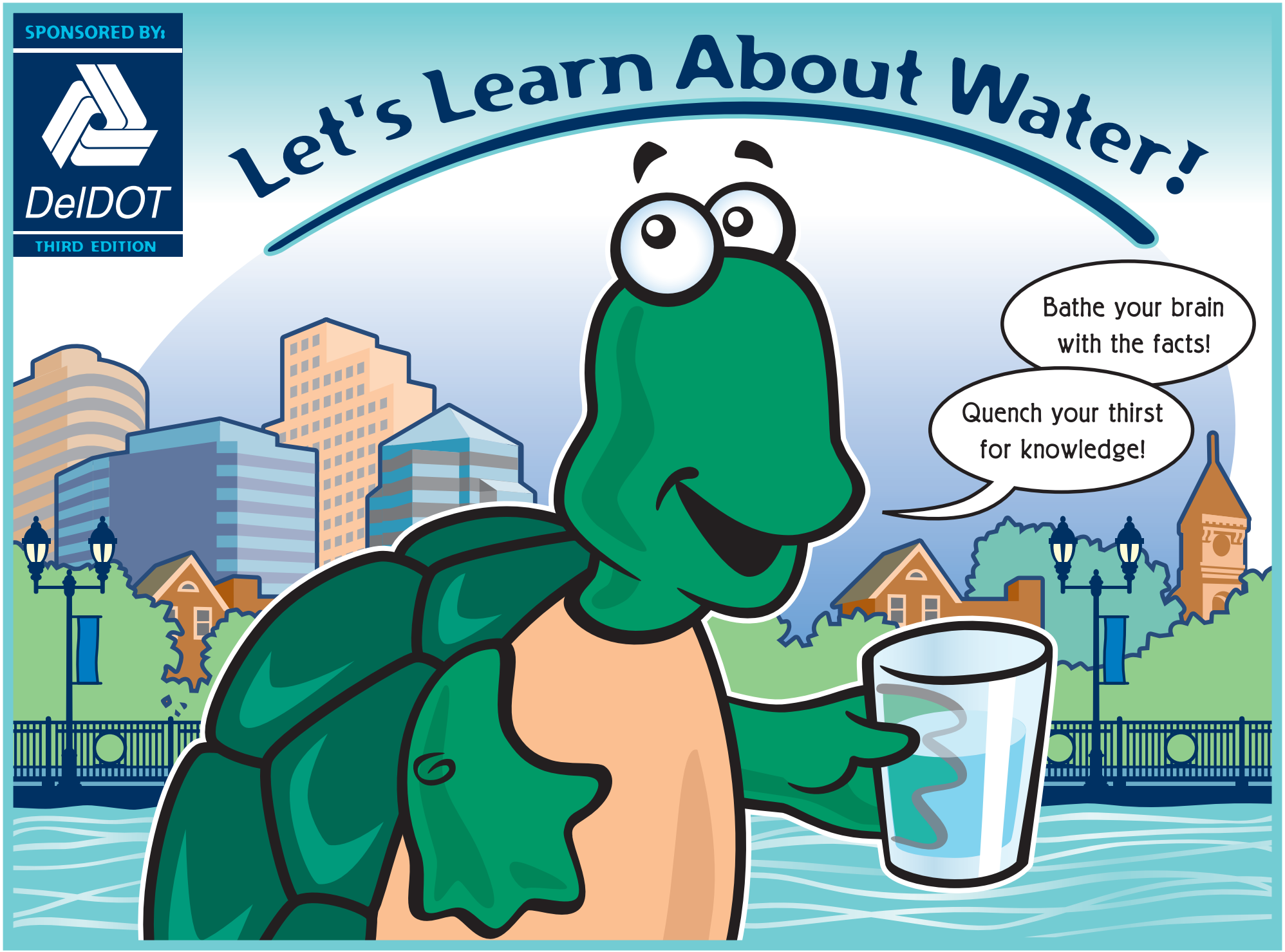
DelDOT

THIRD EDITION

Let's Learn About Water!



Wise Water Use is Important!

Hey Kids! We use water every day, in so many ways! When we pollute the land we pollute our water. Rain washes the trash and pollutants on the ground into our storm sewer inlets and local streams. Dive into this game and learn about the many uses of water, both good and bad, and discover why water is so important!

ONE WAY

START HERE

CITY OF WILMINGTON

Go swimming at a community pool. MOVE AHEAD 1 SPACE

Go to a car wash that recycles water. MOVE AHEAD 2 SPACES

CAR WASH

Leave the faucet dripping for days. GO BACK 1 SPACE

95

Wash the dishes! MOVE AHEAD 3 SPACES

SUDZ

Water your lawn excessively. GO BACK 2 SPACES

CITY OF NEWARK

Brush your teeth. MOVE AHEAD 1 SPACE

Take a really long shower. LOSE A TURN

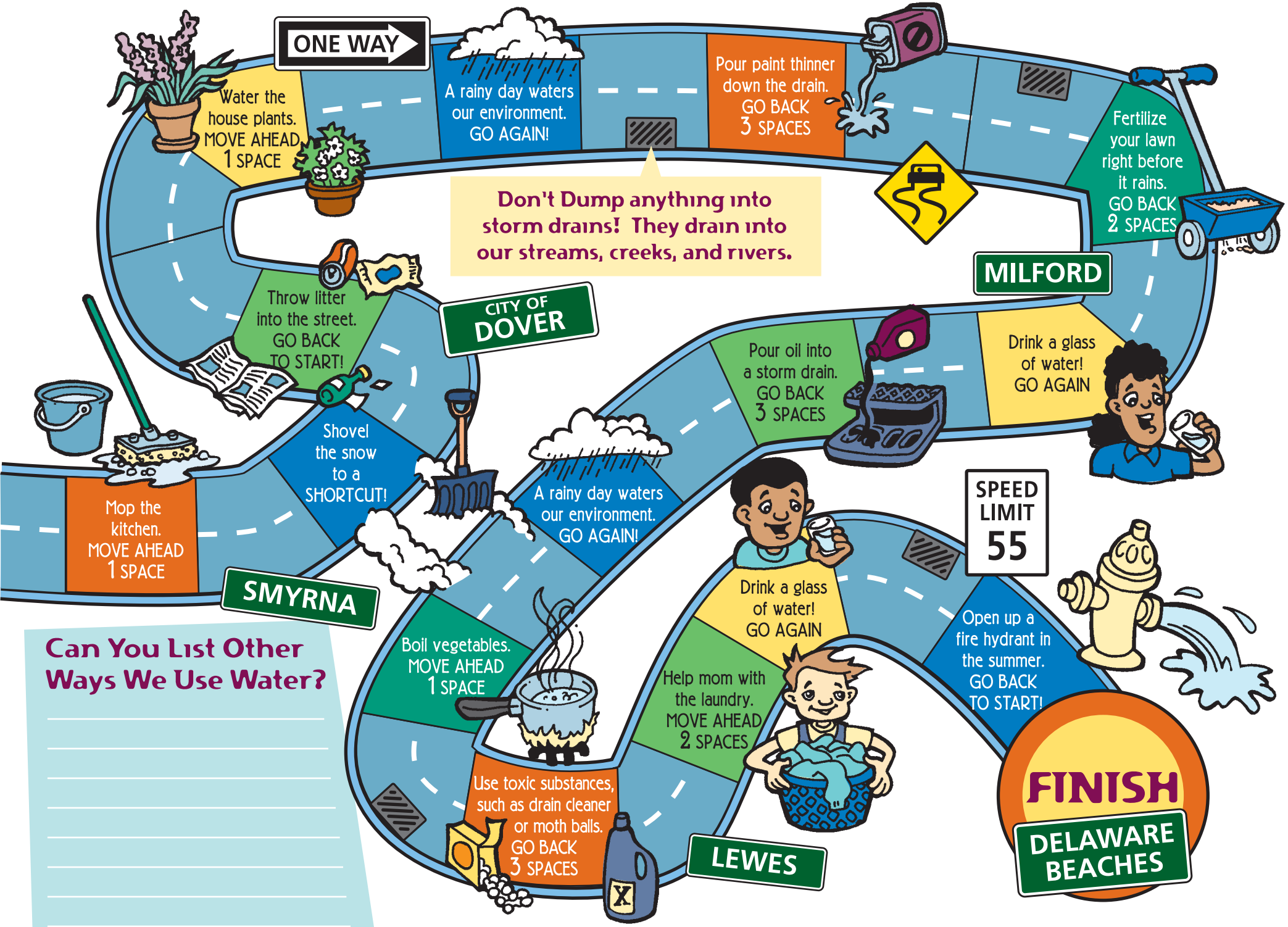
Drink a glass of water! GO AGAIN

Your body needs 8 glasses of water every day!

DIRECTIONS:

1. Find an eraser, paper clip, stick of gum or other game piece and place on "START HERE."
2. Flip a coin when it's your turn:
   HEADS, move 1 space ahead
   TAILS, move 2 spaces ahead
3. The first one to "FINISH" wins.

HAVE FUN!



Can You List Other Ways We Use Water?

_____

_____

_____

_____

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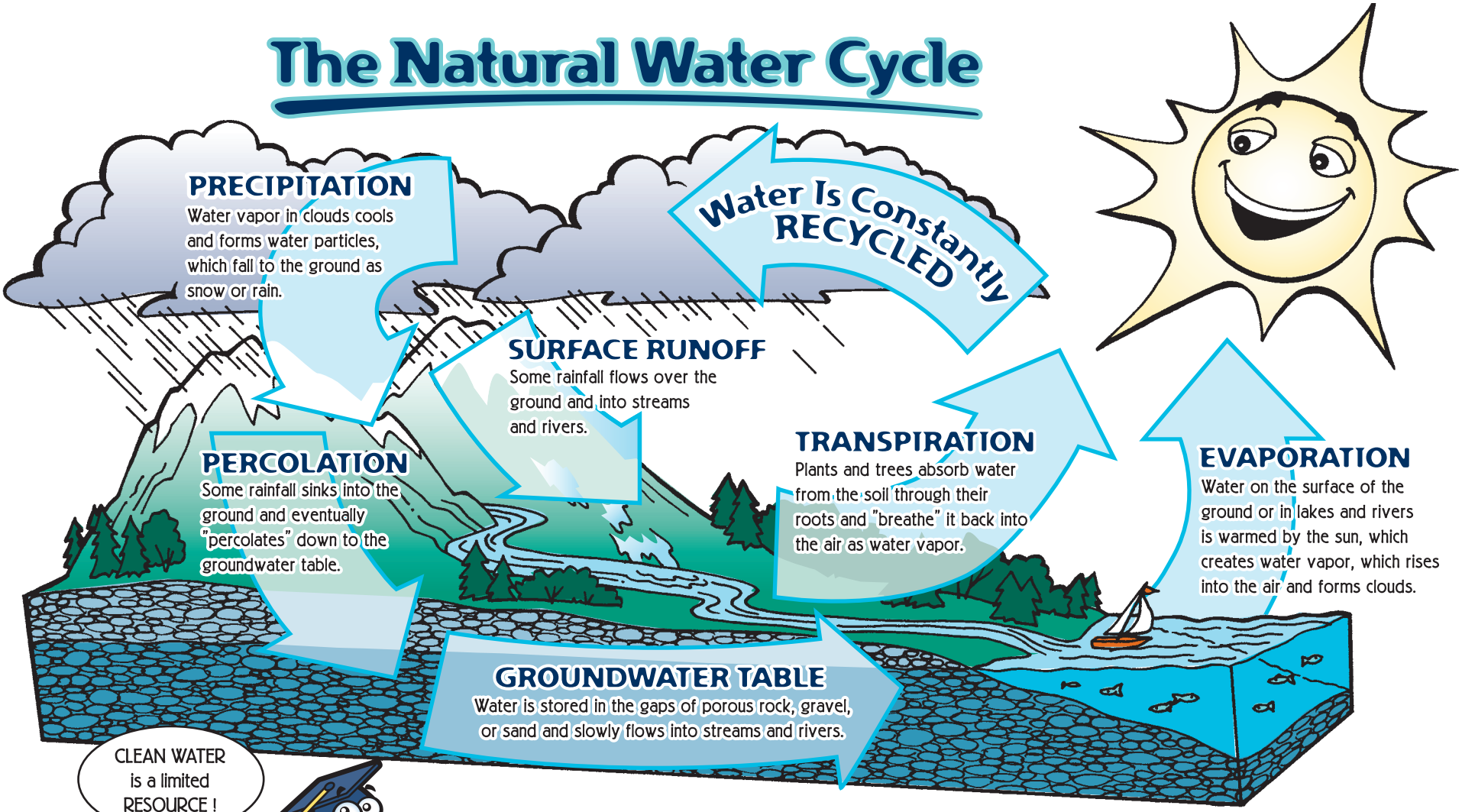
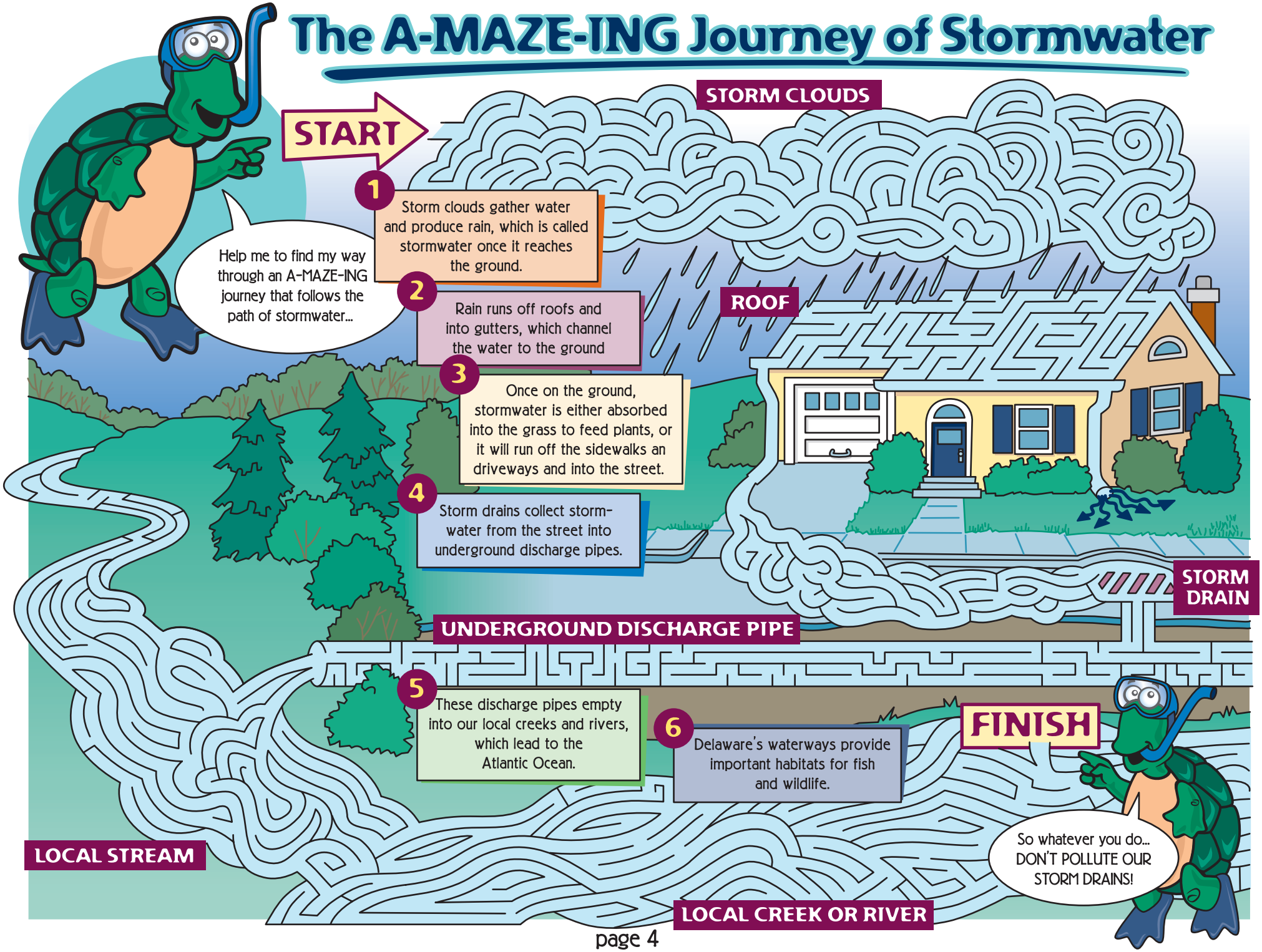
The Natural Water Cycle



The SAME water that the Dinosaurs drank...is the SAME water that we drink today.
Water is constantly recycled and reused over and over again !

Doesn't that make your head SWIM ?

The A-MAZE-ING Journey of Stormwater



The Delaware Estuary

Shaded areas within dashed line represent the Delaware Estuary Region.

Q. What exactly is the DELAWARE ESTUARY?

A. The Delaware Estuary includes portions of Pennsylvania, New Jersey and Delaware and stretches approximately 133 miles from the falls of the Delaware River at Trenton, NJ, and Morrisville, PA, south to the mouth of the Delaware Bay between Cape May, NJ, and Cape Henlopen, DE. The largest tributary to the Delaware Estuary is the Schuylkill River.

Estuaries are areas where salt water from the sea mixes with fresh water flowing off the land. They are among the most productive habitats on earth and are vital spawning, nursery, and feeding grounds for fish and shellfish. They also support wading and migratory birds, reptiles, and mammals. Estuary wetlands filter pollutants and sediments from the land and serve as buffers that protect land from flooding and erosion.

Q. What's a WATERSHED?

A. The WATERSHED of a stream is all of the land that sheds water into that stream when it rains. When rain falls on land, it drains or runs off to the nearest stream or river that is downhill.

Q. What did the ocean say to the beach?

A. Nothing. It just waved.

What's My Watershed Address?

Turn this map 90° clockwise and see if you can find the watershed that you live in!

If you live in this yellow-green area, you live in the NAAMANS CREEK WATERSHED. This creek is mostly underground, just like the Shellpot Creek. If you live in the purple area, you live in the SHELLPOT CREEK WATERSHED.

If you live in Wilmington, you live in one of three watersheds. The western part of the city (shown in lighter purple) is in the SHELLPOT CREEK WATERSHED. The central part of the city (shown in lighter green) is in the BRANDYWINE CREEK WATERSHED. And the eastern part of Wilmington (shown in lighter yellow) is in the CHRISTINA RIVER WATERSHED.

Residents of New Castle live in the ARMY CREEK WATERSHED. Most of the residents of Delaware City live in the DRAGON RUN CREEK WATERSHED, but if you live in the eastern part of the city (shown in lighter blue-green) you live in the CHESAPEAKE AND DELAWARE CANAL WATERSHED.

If you live in Dover, you live in one of two watersheds. The western part of the city (shown in lighter gray) is in the LITTLE CREEK WATERSHED. The eastern part of the city (shown in lighter green) is in the ST. JONES RIVER WATERSHED.

If you live down in Georgetown, you live in one of two watersheds. The western part of the city (shown in lighter yellow) is in the INDIAN RIVER WATERSHED. The eastern part of the city (shown in lighter green) is in the DEEP CREEK WATERSHED.

My Home Address is:

My Watershed Address is:

If you live in Newark, you live in either of two watersheds. The western part of the city (shown in lighter gray) is in the WHITE CLAY CREEK WATERSHED. The eastern part of the city (shown in lighter yellow) is in the CHRISTINA RIVER WATERSHED.

This gray portion of the map is a part of the CHESAPEAKE DRAINAGE SYSTEM, the water that drains from this area eventually will end up in the Chesapeake Bay.

Q. Where do fish wash ?

A. In a RIVER BASIN !

If you live way over there in Millsboro, you live in one of two watersheds. The northern part of the city (shown in lighter yellow) is in the INDIAN RIVER WATERSHED. The southern part of the city (shown in lighter green) is in the IRON BRANCH WATERSHED.

How Can You and Your Family Protect Our Water?

Hey Kids! Protecting our water supply isn't just an adult thing. Its up to each and every one of us! Storm drains in the street (also called sewer inlets) are for water only. Delaware's rain and melting snow pick up all kinds of pollutants as they wash over our sidewalks, streets, parking lots and yards. All of this dirty water flows into storm drains, many of which empty into local creeks and the Delaware Estuary. You can help make our waterways safer for drinking, fishing and boating by keeping pollution and trash out of Delaware's storm drains.

Follow these 6 Tips :

1 Keep litter off the street. This includes candy wrappers, fast food containers and other wastes. Put trash in trash cans and clean-up street litter so it doesn't get washed or blown into the storm drains.

2 Ask your parents to service the car regularly to prevent oils and other fluids from leaking onto the pavement and being washed down the storm drains. People should always recycle used motor oil and antifreeze. Cars should be moved for street sweepings to allow for the removal of debris before it washes down the storm drains.

4 You can help protect our drinking water by cleaning up after your dog. Place dog waste in the toilet or a trash can, not in the street or down the storm drain. Dog waste introduces disease-causing bacteria into our water supply.

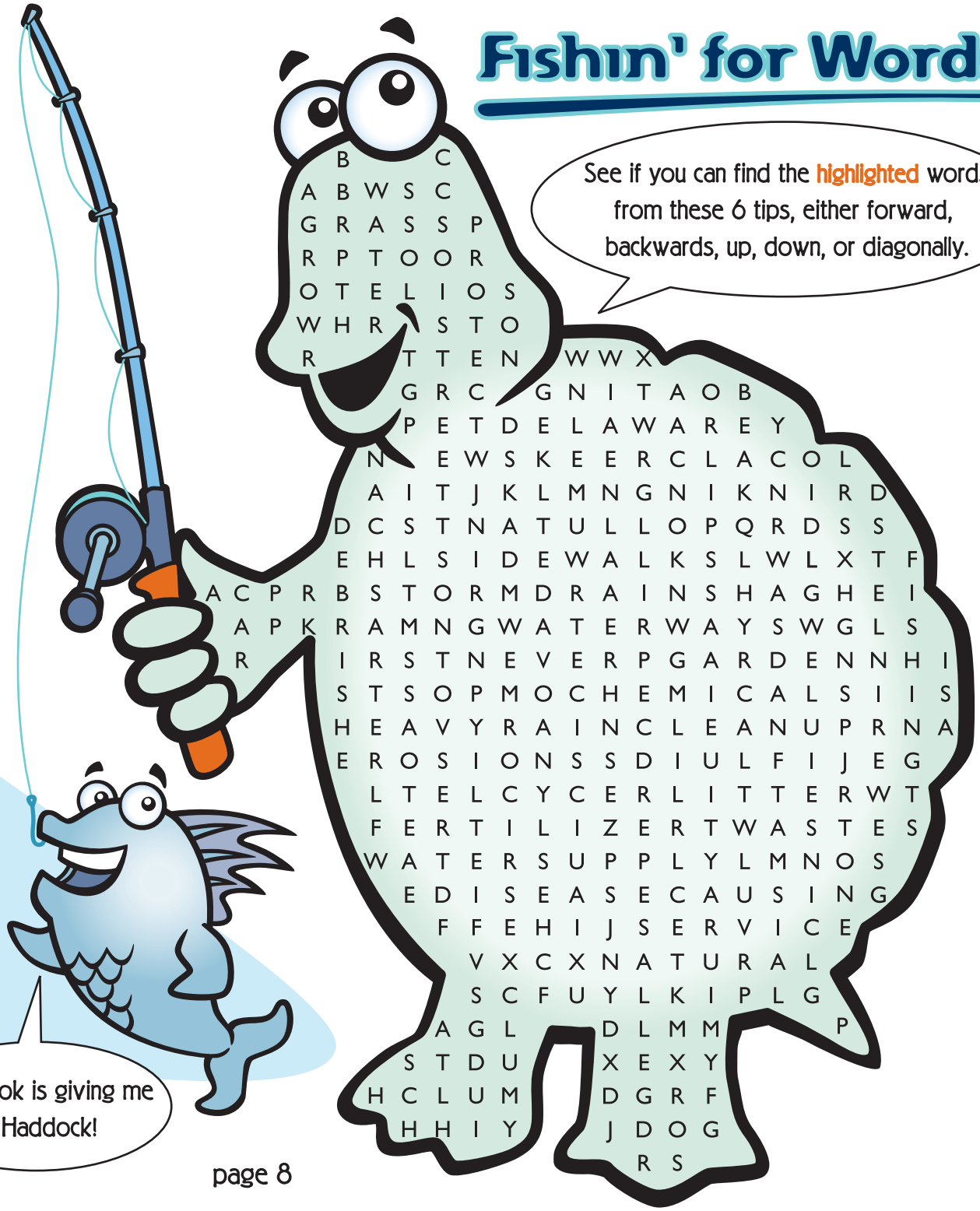
5 Let your grass grow! Taller grass chokes weeds, so ask your parents to set the mower height at 3 inches, water your lawn thoroughly but infrequently to encourage deep root systems, use natural organic fertilizer if you do fertilize (which will release nutrients more slowly than chemical fertilizers), and avoid applying fertilizer before heavy rain.

Fishin' for Words

See if you can find the **highlighted** words from these 6 tips, either forward, backwards, up, down, or diagonally.

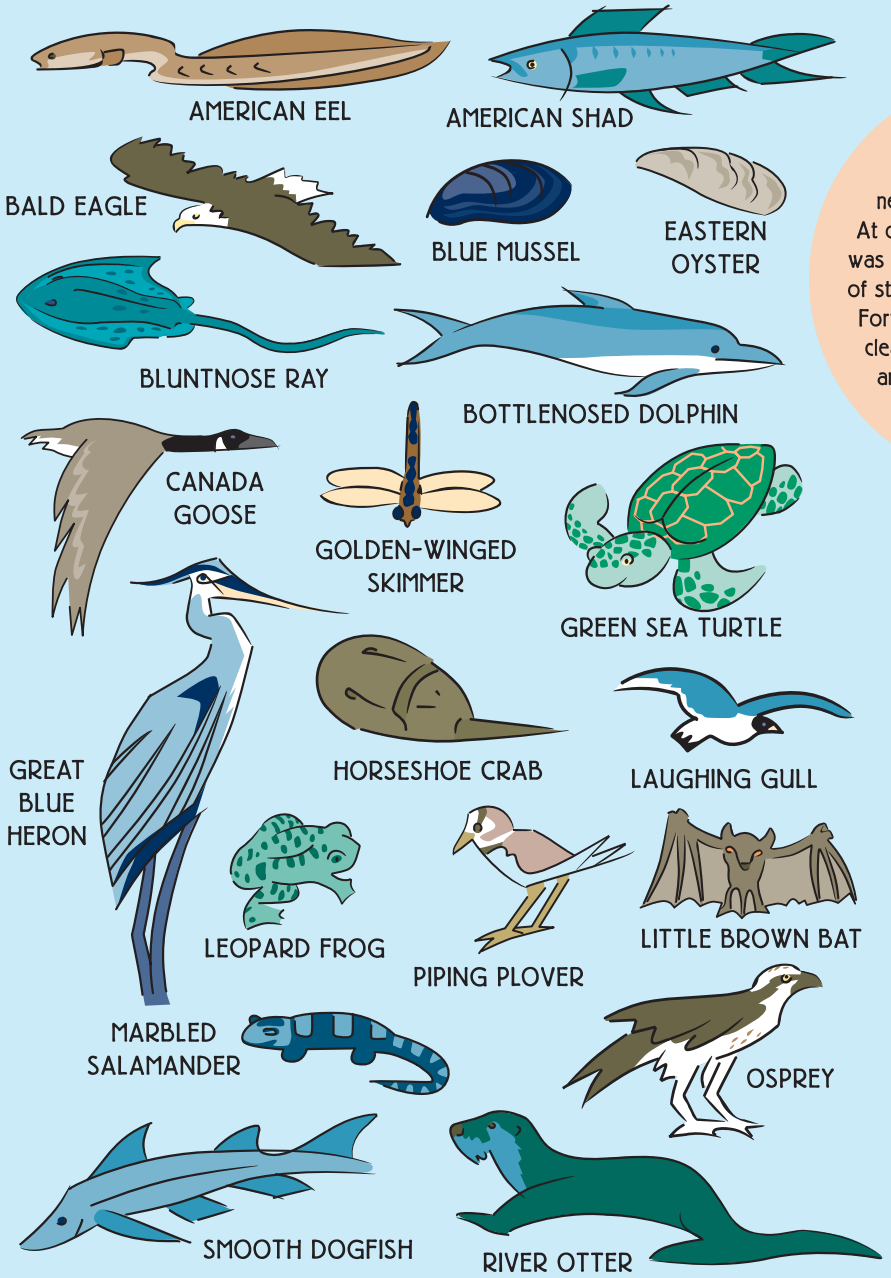
3 Help your parents expand your garden, and cut down on the size of your **lawn**. Maintaining a **garden** without **chemicals** is easier than maintaining a lawn without chemicals. Use native plants, **mulch**, and plant densely to decrease the need for water, **reduce erosion**, and discourage weeds.

6 Help your parents compost leaves and grass clippings. Next year you will have rich **compost** that can be used to enhance your garden **soil**. If you don't compost, carefully bag your leaves and grass clippings. Leaves and grass clippings placed in the street unbagged will **clog** storm drains.



Living Species in Delaware's Coastal Bay

Find and color these living species of Delaware's Coastal Bay:

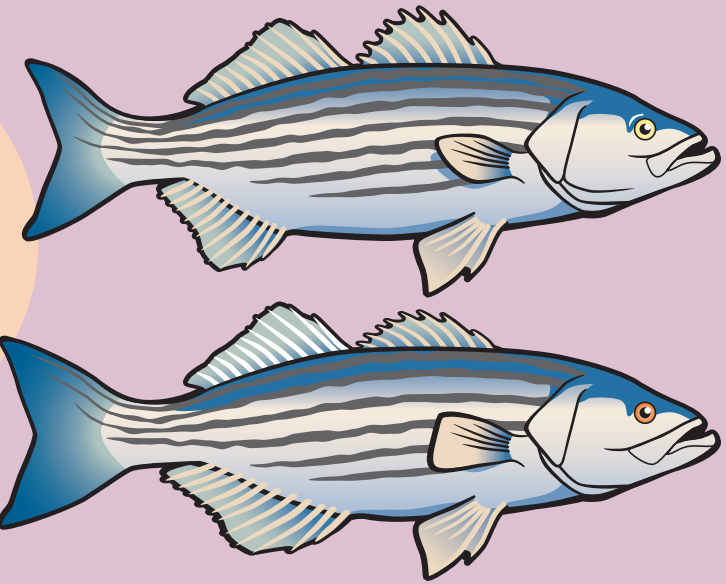


Striped Bass Twins?

These two striped bass may seem to be twins at a first glance, but if you look closer you will discover 10 differences. Can you find them all?

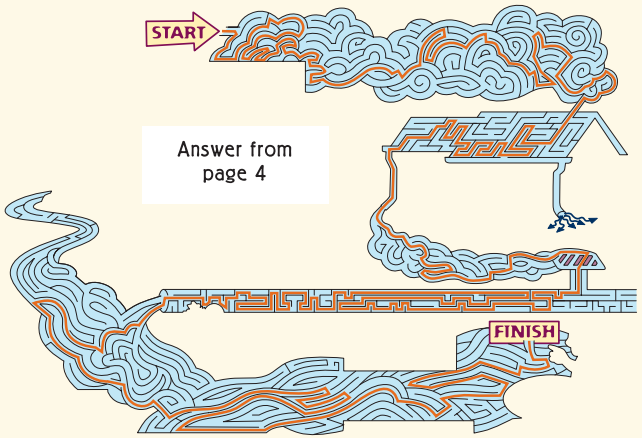
Fun Fact:

Every living organism needs clean water to survive. At one time the Delaware Estuary was so polluted that the population of striped bass nearly disappeared. Fortunately, the Estuary has been cleaned up in the past 25 years, and the population of striped bass has rebounded.



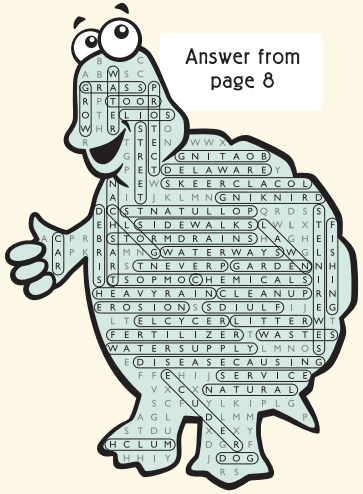
ANSWER KEY

The A-MAZE-ING Journey of Stormwater



Answer from page 4

Fishin' for Words

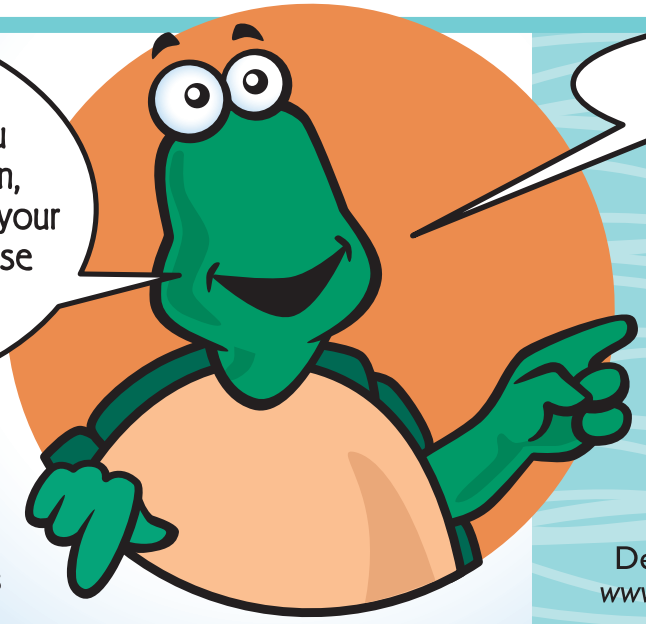


Answer from page 8

Striped Bass Twins? (Answer from puzzle at top of page)

THE BOTTOM BASS HAS THESE DIFFERENCES: 1) One less stripe. 2) Larger mouth. 3) Different shaped side fin. 4) Missing a line on the chin area. 5) Longer tail. 6) Different eye color. 7) Smaller top central fin. 8) Larger lower back fin. 9) White spines on upper back fin. 10) Missing the white eyebrow line.

If you want to learn more about water and what you can do to help keep it clean, or how you can connect with your local watershed group, please contact the following organizations:



DelDOT

Delaware Department of Transportation
P.O. Box 778 • Dover, DE 19903
(In-state) 1-800-652-5600
(Local or out-of-state) 302-760-2080
E-mail: dotpr@state.de.us • Website: *www.deldot.gov/stormwater*

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E-mail: dross@DelawareEstuary.org
Website: *www.DelawareEstuary.org*

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Committed to Service Excellence

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Email: kdinsmore@newark.de.us
Website: http://www.cityofnewarkde.us/NPDESstormwaterprogram

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Also, check out these exciting websites for more water wisdom:

Academy of Natural Sciences
www.acnatsci.org

Center for Watershed Protection
www.cwp.org

Delaware Audubon Society
www.DelawareAudubon.org

Delaware Chapter of The Nature Conservancy
http://nature.org/wherewework/northamerica/states/delaware/

Delaware Chapter of the Sierra Club
www.delaware.sierraclub.org/

Delaware Department of Natural Resources & Environmental Control
www.dnrec.delaware.gov

Delaware Nature Society
www.delawarenaturesociety.org

Delaware River Basin Commission "Ed Web"
www.state.nj.us/drbc/edweb/

Delaware Riverkeeper Network
www.delawareriverkeeper.org

Stroud Water Research Center
www.stroudcenter.org

U. S. Environmental Protection Agency's Office of Water
www.epa.gov/ow/

Appoquinimink River Association
www.apporiver.org

Center for the Inland Bays
www.inlandbays.org

U.S. Environmental Protection Agency's Nonpoint Source Kid's Page
www.epa.gov/owow/nps/kids