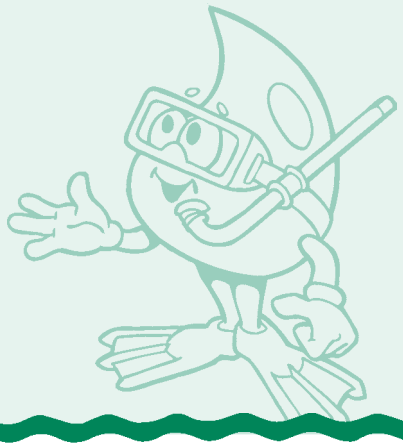
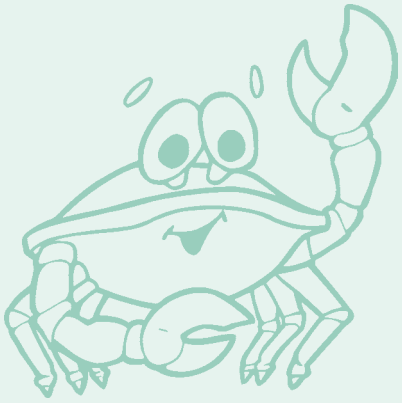
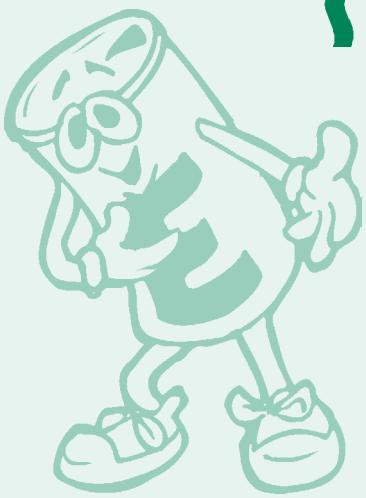


Environmental Outreach ACTIVITY Book





DHEC

PROMOTE PROTECT PROSPER

www.scdhec.gov

Make Every Day... EARTH DAY!

What is Earth Day?

Earth Day is a day when millions of people across the world come together to promote a cleaner, safer environment. Earth Day is held every year on April 22.

The History of Earth Day

Senator Gaylord Nelson of Wisconsin is considered the "founder" of Earth Day. Nelson's idea evolved over a seven-year period beginning in 1962 and resulted in the first Earth Day being held on April 22, 1970. The first Earth Day drew together more than 20 million Americans and became the largest grassroots demonstration in U.S. history. Participants took to the streets, lobbied Congress and began the modern environmental movement. Earth Day 1970 helped develop public support that led to the enactment of the Clean Air Act, Clean Water Act, Endangered Species Act and the Marine Mammal Protection Act as well as the creation of the U.S. Environmental Protection Agency.

The rest is history. In 1990, some 70 million Americans took part in 40,000 Earth Day events across the nation with more than 1.8 million people gathering in New York City and another 800,000 in Washington, D.C. In 2000, more than a half billion people around the world celebrated the 30th anniversary of Earth Day, making it the largest environmental event in history.

Earth Day is now an annual celebration in many communities with events being held throughout April.

Things You Can Do to Celebrate Earth Day

- Reduce, reuse and recycle.
- Conserve energy.
- Conserve water.
- Carpool, bike, walk and ride the bus.
- Buy items made from recycled materials.
- Use a cloth bag when you go shopping.
- Learn about endangered species.
- Think about pollution solutions.
- Keep cars well tuned and maintained.
- Compost food and yard waste.
- Keep storm drains free of trash.
- Put litter in its place.
- Water your lawn only when it needs it.
- Dispose of hazardous substances properly.
- Wrap gifts in the Sunday comics.
- Learn about earth-friendly products and materials.

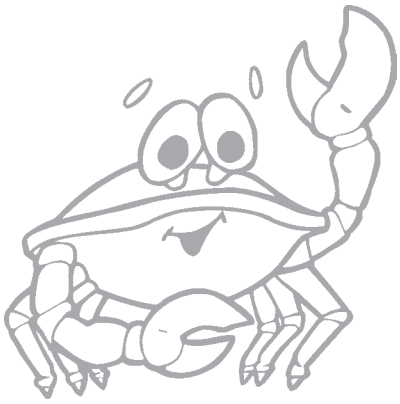
"The objective was to organize a national demonstration of concern for the environment so large that it would shake up the political establishment and force this issue onto the national agenda. It was a gamble, but it worked."

– ***Senator Gaylord Nelson**, founder of Earth Day*

"That Earth Day has survived as an annual, international event is a heartening testament to the strength of a good idea."

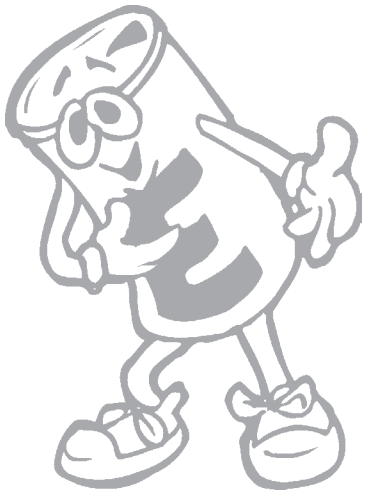
– ***Denis Hayes**, Chair, Earth Day Network*

Environmental Outreach ACTIVITY Book



DHEC

PROMOTE PROTECT PROSPER



Presented by the South Carolina Department of Health and Environmental Control

DHEC's Bureau of Air Quality

www.scdhec.gov

CLEAN AIR TIP:
Besides being fun and good exercise, biking and walking can be good for air quality!

Do your share to SPARE THE AIR!

How many of the following activities do you do? Read each description and give yourself two points for each activity you do regularly. Add your score for both HOME and SCHOOL and calculate your total at the bottom of the page.

AT HOME	POINTS
I encourage my parents to purchase Energy Star Appliances.	
I compost yard trimmings instead of burning them.	
I turn off the lights, TV, computer, stereo and any electrical equipment when I'm not using them.	
I encourage my family to combine errands and reduce trips.	
I encourage my parents not to idle the car engine unnecessarily in the driveway or on errands.	
I carpool, bike or walk whenever possible.	
I encourage my parents to routinely maintain the family car and make any necessary repairs.	
TOTAL POINTS FOR HOME	

AT SCHOOL	POINTS
I carpool, walk, ride my bicycle or take the bus to school.	
I help my school to get and share the ozone forecast.	
I turn off the lights, computer and any electrical equipment when I'm not using them.	
I write articles for the school newspaper or design displays, posters or bulletin boards about preventing air pollution.	
I help plant and maintain shade trees on the school campus.	
I help plan "Walk to School Day" at my school.	
I encourage my bus or car driver not to idle the vehicle unnecessarily on the school campus.	
TOTAL POINTS FOR SCHOOL	

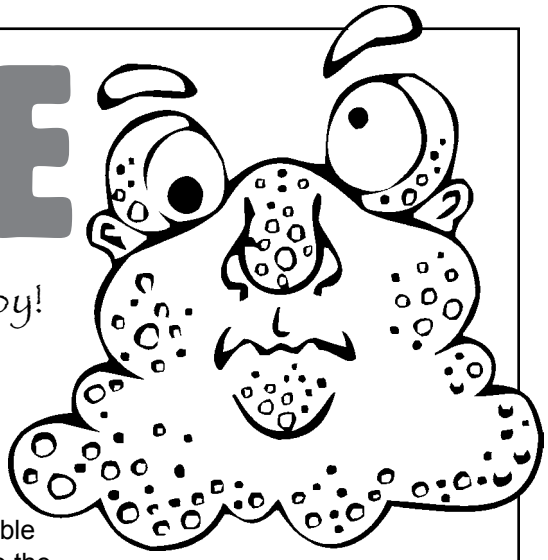
TOTAL POINTS:

(10-14) You're a Clean Air Superstar!
(4-9) Keep up the good work!
(1-3) You're on the right track! Do a few more activities each day.
(0) It's time for action! It's never too late! Start today!

OZONE

Good up high, bad nearby!

Ozone is a gas you can't see or smell. Ground-level ozone is the bad ozone. It forms when air pollutants from things like car exhausts and factories mix with hot sunlight. When humans inhale too much bad ozone, they can have trouble breathing. The good ozone is high above the ground where we cannot breathe it. Good ozone protects us from the sun's harmful rays. Remember, ozone is good up high, bad nearby.



Mr. Ozone

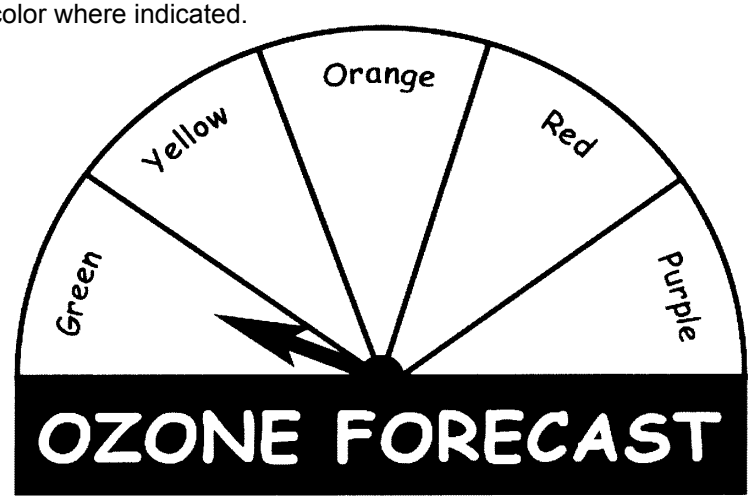
DHEC's Bureau of Air Quality

www.scdhec.gov

DID YOU KNOW?
The Ozone Forecast is available during Ozone Season – April 1 through September 30. Get the ozone forecast at (866)238-4973 or sign up at www.enviroflash.info.

Have you seen this before?

Look for it on television or in the newspaper. This is the **Ozone Meter**. It shows you the ozone level for the day. Complete the meter by coloring in the correct color where indicated.



WHAT DOES IT MEAN?

Green = It's a great day to be active outside!
Yellow = It's a good day to be active outside.
Orange = It's OK to go outside and be active for recess or PE class. For longer activities, take it a little easier.
Red = Take it a little easier if you do any outside activities.
Purple = It's a good day to play inside.

DHEC's Bureau of Air Quality

www.scdhec.gov

DID YOU KNOW?
Lichen – a flaky, gray fungus found on trees and rocks – is an indicator of good air quality.

Air Quality WORDSEARCH

After you find the hidden words, look for the message left by the remaining letters **in order**. Write it below. See page 23 for the answers.

E	D	S	D	O	C	Y	E	A	W
O	M	U	M	L	U	S	N	S	E
H	S	I	O	O	E	R	O	B	A
T	A	U	S	E	K	S	Z	E	T
S	D	Z	R	S	C	E	O	S	H
S	H	T	E	I	I	A	R	T	E
E	F	O	X	R	C	O	L	O	R
L	O	O	P	R	A	C	N	S	E
A	T	N	E	D	A	E	L	S	R
A	I	R	C	O	M	P	O	S	T

FIND THESE WORDS:

Asbestos
Carpool
Clouds
Compost
Dust
Emissions
Haze
Lead
Ozone
Smoke
Toxics
Trees
Weather

Write the hidden message here.

_____

_____

_____

COMPOSTING...

A Natural Way to Keep the Air Clean

When you and your family rake your yard, what will you do with all those leaves? Some people burn them, but the smoke pollutes the air, making it difficult for you and your neighbors to breathe.

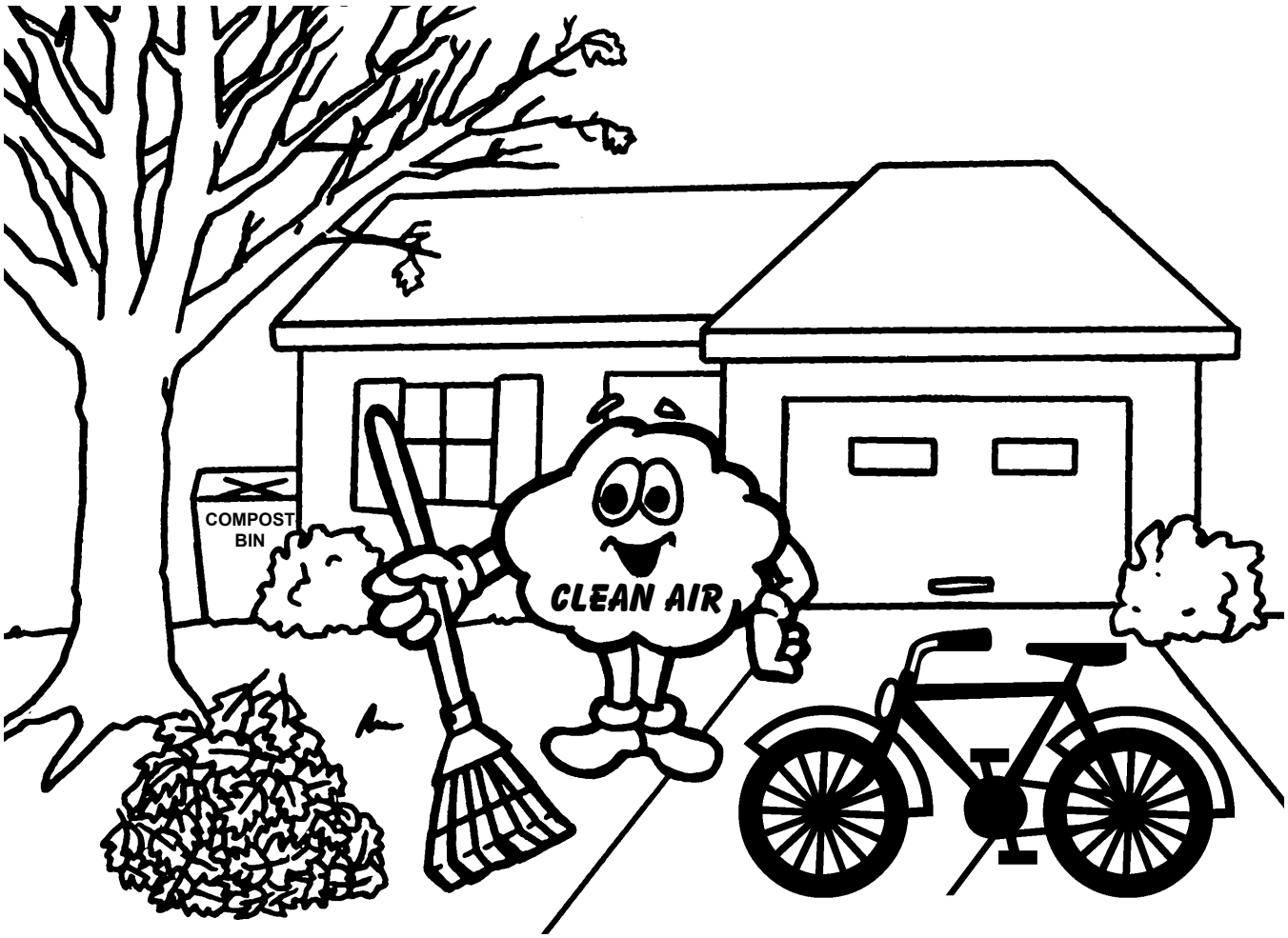
Composting is the best way to dispose of leaves and other yard trimmings. It helps to keep the air clean and provides a good mulch for your garden and flower beds. Another way to keep the air clean is by riding your bicycle.

DHEC's Bureau of Air Quality

www.scdhec.gov

CLEAN AIR TIP: Compost your leaves instead of burning them. Compost is great to use in your flowerbeds and gardens.

Composting is nature's way of recycling.

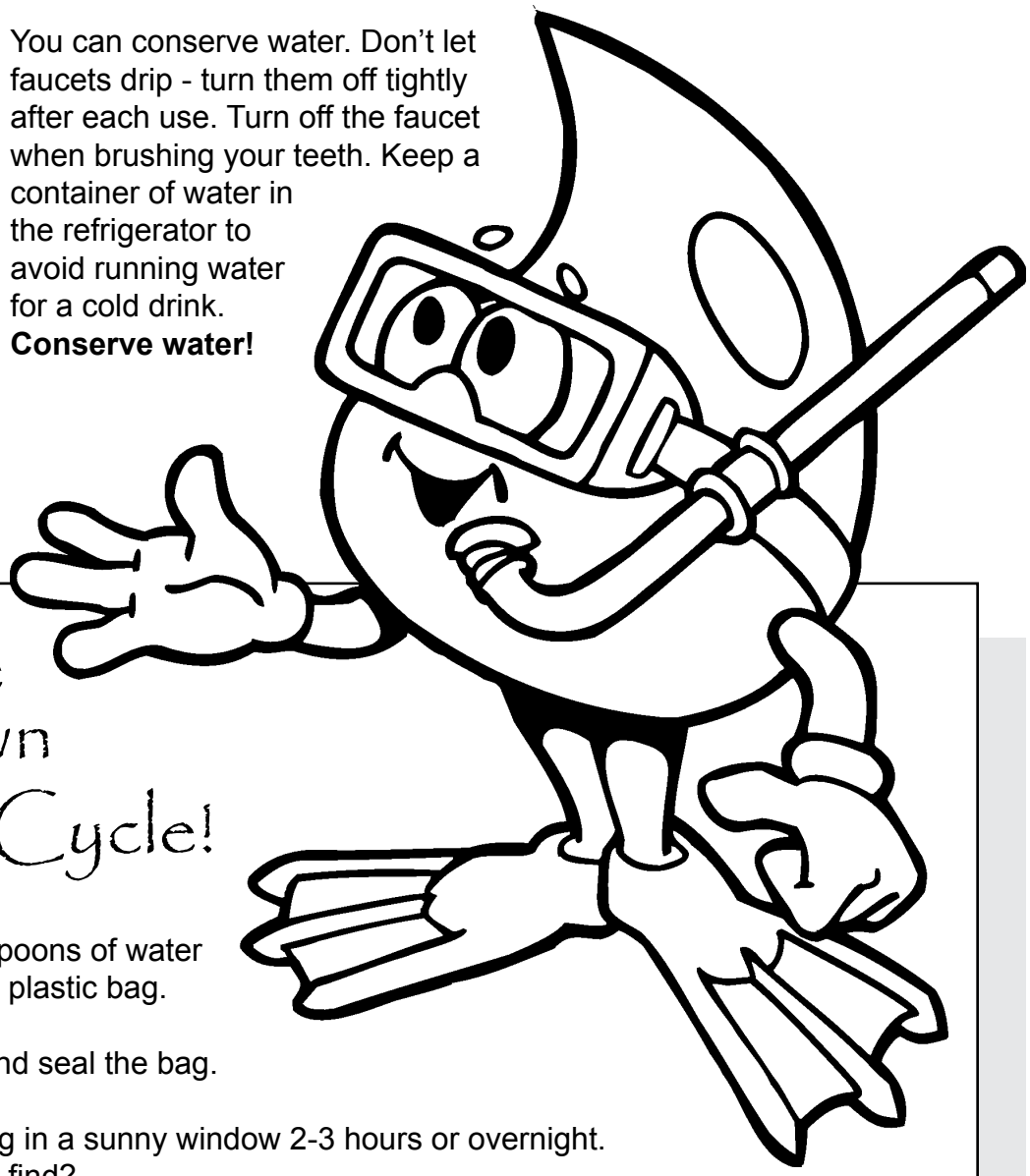


DHEC's Bureau of Water
www.scdhec.gov/HomeAndEnvironment/Water/

WATER-SAVING TIP:
Remember to turn off the water when brushing your teeth.

SPLASH!

You can conserve water. Don't let faucets drip - turn them off tightly after each use. Turn off the faucet when brushing your teeth. Keep a container of water in the refrigerator to avoid running water for a cold drink. **Conserve water!**



Create your own Water Cycle!

1. Put two teaspoons of water in a sealable plastic bag.
2. Blow air in and seal the bag.
3. Place the bag in a sunny window 2-3 hours or overnight. What do you find?

The water at the bottom of your plastic bag is the "lake." The fog on the inside shows how clouds form. Drops that fall from the top are "rain." If the bag stays warm, more water will remain in the air just as it does outside on very humid days.

WATER, WATER EVERYWHERE!

DHEC's Bureau of Water
www.scdhec.gov/HomeAndEnvironment/Water/

WATER-SAVING TIP: Take shorter showers. Turn off the water when lathering up.

Unscramble these words to identify the major sources of water we use. The answers can be found on page 24.

KSLEA _____

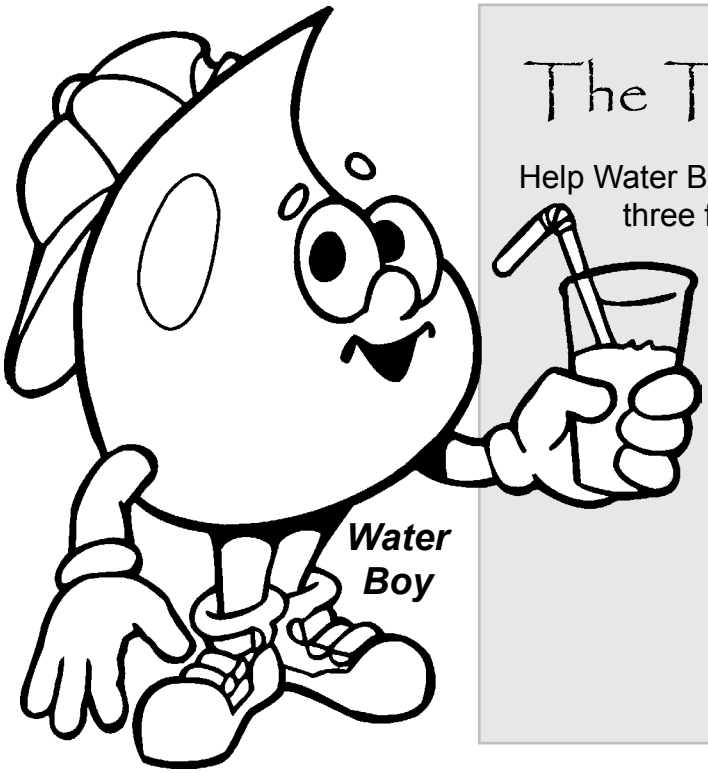
RREVIS _____

SSAMERT _____

DGRWRETUNAO _____

EEOIRRSRV _____

QRFAIUE _____



The Three Forms of Water

Help Water Boy unscramble the **BOLD** words to find the three forms of water and list them below. The answers are on page 23.

In **IIUDQL** form we know water as **NAIR** or **TPA TERWA**. In **DLOSI** form, it is **EIC**. As a **SGA**, we call it **RPVAO**.

_____

_____

_____

DHEC's Bureau of Water
www.scdhec.gov/HomeAndEnvironment/Water/

DID YOU KNOW?
One gallon of used motor oil can contaminate as much as 1 million gallons of drinking water.

Go with THE FLOW

Rain water on the move picks up pollutants, then flows into storm drains (grated openings near street curbs). Storm drains carry this "polluted runoff" through pipes beneath the street. Some of these pipes lead directly to lakes, rivers and even the ocean. Other runoff seeps directly into the ground.

Find each pollutant in this word puzzle. Stop them before they reach our storm drains. The answers are on page 23.

FIND THESE WORDS:

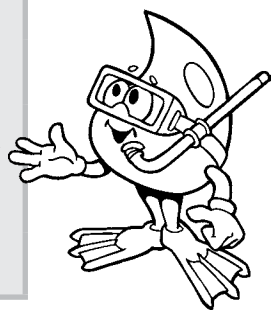
Fertilizer
Weed Killer
Chemicals
Trash
Paint
Oil
Batteries
Varnish
Glue
Turpentine
Pesticides
Insecticides

Hint: These words, like water, travel in lots of directions.

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

DID YOU KNOW?
Only 3 percent of the water on Earth is fresh. More than two-thirds of this fresh water is frozen at the North and South poles. We all share less than 1 percent of all the fresh water on earth.

MORE...
We need water to produce a lot of the goods we use. It takes between 7 to 25 gallons of water to produce 1 gallon of gasoline.



How do you MEASURE UP?

To have enough water to go around, all of us must change wasteful water habits now. A normal faucet open all the way pours out 3 to 5 gallons of water a minute. An outside tap allows even greater flows. Installing a “low-flow” device can cut that flow in half.

How much water do you use?

Reduce the amount of water you use and waste and track your progress using the information below. Add the number beside your daily water-saving activities and total them in the box on the bottom right.

IN THE KITCHEN

Washing Dishes
A dishwasher uses about 10 gallons of water.

Fill a container with soapy water and run water only to rinse — PLUS 6

Run the dishwasher only when full or wash them by hand if there are only a few dishes — PLUS 5

OUTSIDE

Watering Plants and the Lawn
A sprinkler hose uses 10 gallons per minute.

Use an automatic shut-off valve — PLUS 5

Water during the morning or evening (reduces waste by reducing evaporation) — PLUS 10

Use a drip hose — PLUS 6

THROUGHOUT THE HOUSE

Fixing Leaks
One leaky toilet can waste 20,000 gallons a year. Test your toilets by putting red food coloring in the tank (not the bowl). Don’t flush overnight. Check it in the morning. If the water in the bowl has turned red, you have a leak.

Find leaks and fix them — PLUS 15

IN THE BATHROOM

Taking a Bath
A full bathtub uses 25 gallons of water.

Half-filled tub — PLUS 3

Sponge bath — PLUS 8

Taking a Shower
An average shower lasts 7 to 10 minutes and uses 25 to 50 gallons of water.

7 to 9 minutes — PLUS 2

5 to 6 minutes — PLUS 4

Under 5 minutes — PLUS 5

Install a “low-flow” shower head — PLUS 10

Turn off water when lathering up — PLUS 4

Collect water while it is warming; use to water plants — PLUS 8

Flushing the Toilet
One normal flush uses 5 gallons; a low-flow flush uses 1.5 to 3.5 gallons.

Flush only when you must — PLUS 5

Install low-flow toilets — PLUS 10

Brushing Your Teeth or Washing Your Face
If you let the water run while you scrub or brush, you’ll waste 2 gallons of water.

Turn off the water while brushing or washing — PLUS 5

DHEC’s Bureau of Water
www.scdhec.gov/HomeAndEnvironment/Water/

DID YOU KNOW?
The average American uses about 100 gallons of water a day.

How did you do?

20 Points and Below
Do you really want to waste all that water?

21 to 40 Points
You’re starting to go with the flow!

41 to 60 Points
Treat yourself to a big glass of water. You’ve earned it!

61 Points and Above
CONGRATULATIONS! You’re a true water conservation star!

YOUR SCORE

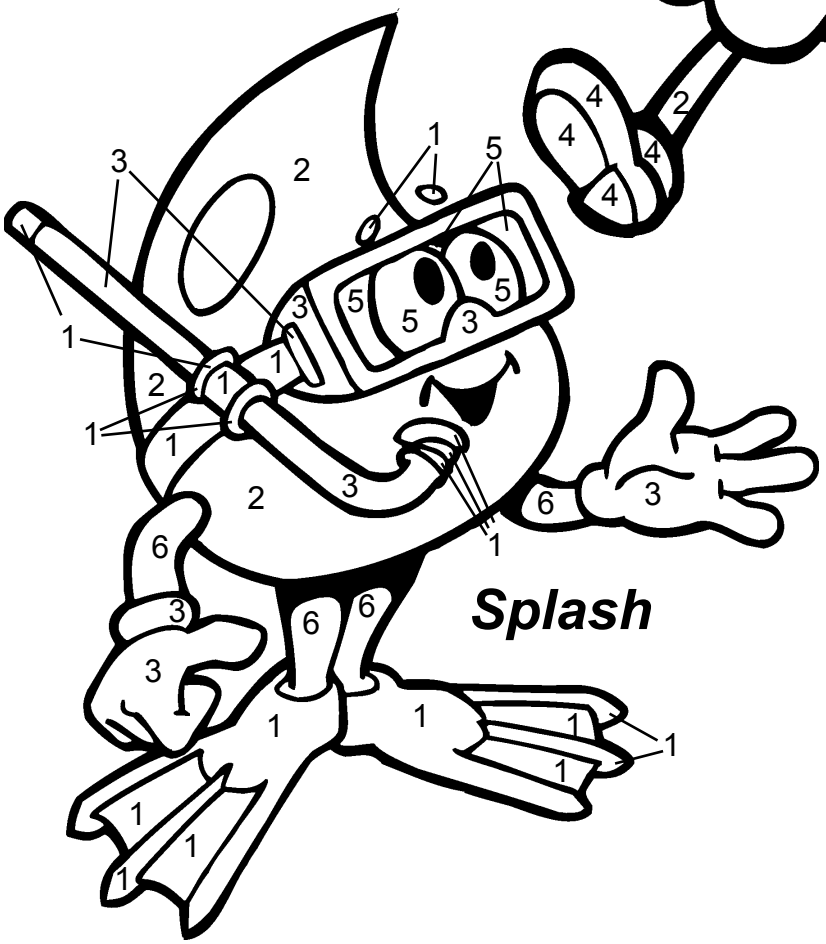
See if you’re really doing better. Compare your family’s recent water bill with last year’s.

COLOR BY NUMBER!

Color the **Clean Air Kid** by following the color key below.

1 – RED
2 – BLUE
3 – YELLOW
4 – BROWN
5 – GRAY

The **Clean Air Kid** is the mascot for DHEC's Bureau of Air Quality.



Color **Splash** by following the color key below.

1 – ORANGE
2 – BLUE
3 – YELLOW
4 – BROWN
5 – GRAY
6 – PURPLE

Splash is the mascot for DHEC's Bureau of Water.

COLOR SOME MORE!

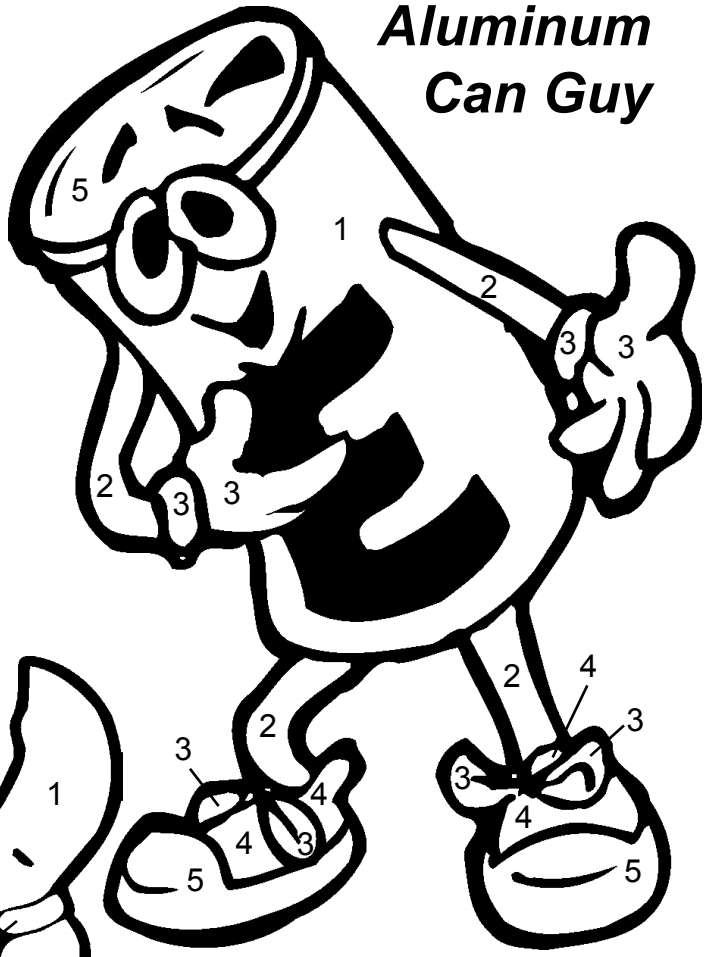
Here are two more characters to color. Use the color keys for each or make up one of your own!

Aluminum Can Guy

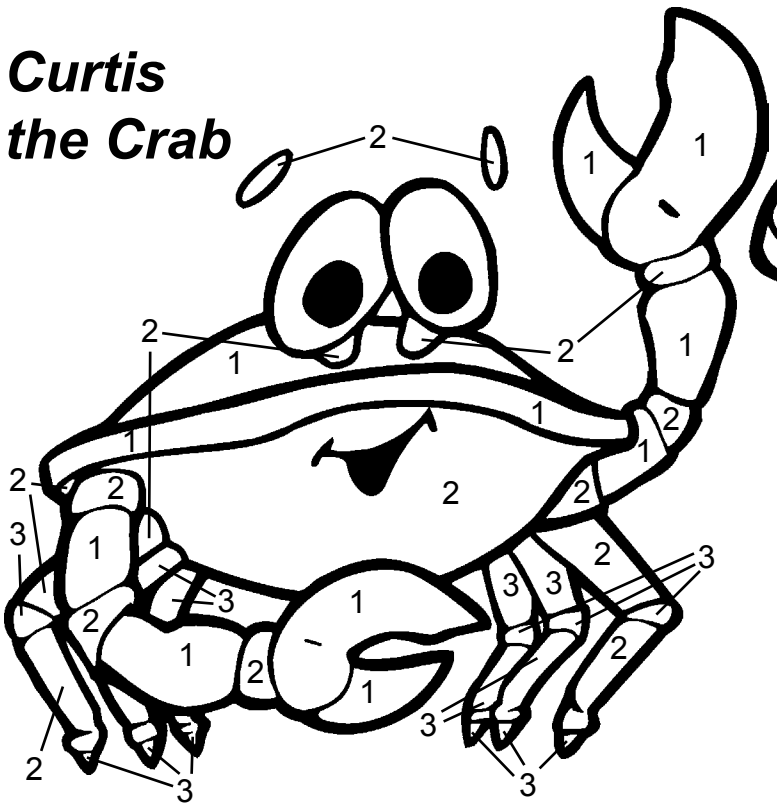
Color **Aluminum Can Guy** by following the color key below.

1 – RED
2 – BLUE
3 – YELLOW
4 – GREEN
5 – GRAY

Aluminum Can Guy is one of the Recycle Guys, the mascots for DHEC's Office of Solid Waste Reduction and Recycling.



Curtis the Crab



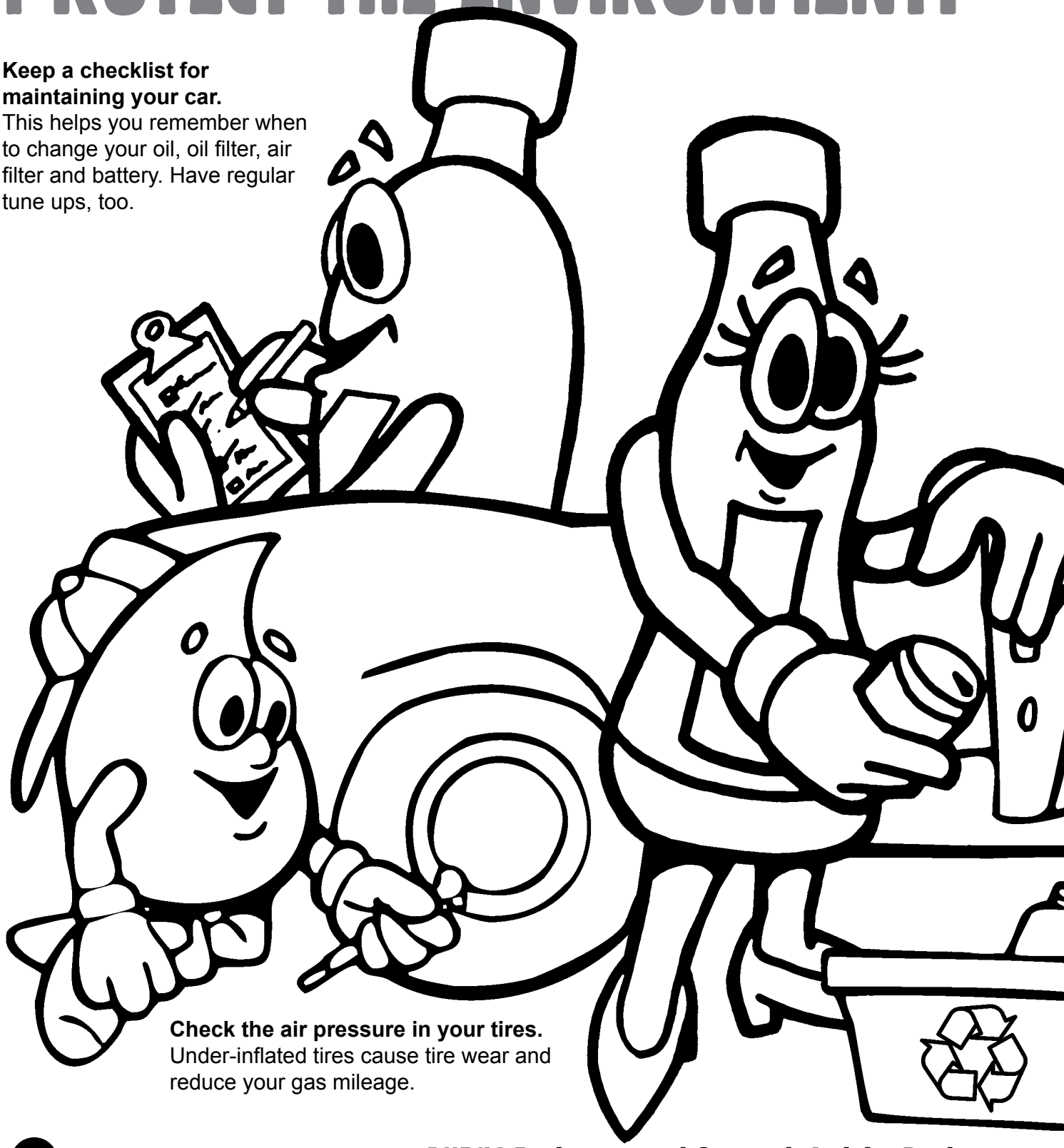
Color **Curtis the Crab** by following the color key below.

1 – PINK
2 – RED
3 – DARK RED

Curtis the Crab is the mascot for DHEC's Office of Ocean and Coastal Resource Management.

Taking care of your car can help PROTECT THE ENVIRONMENT!

Keep a checklist for maintaining your car.
This helps you remember when to change your oil, oil filter, air filter and battery. Have regular tune ups, too.



Check the air pressure in your tires.
Under-inflated tires cause tire wear and reduce your gas mileage.

Replace oil and air filters according to the manufacturer's recommendation. This helps reduce pollution. Remember to recycle your used oil filters, too.

Recycle plastic and glass soft drink bottles and aluminum cans when you get a cold drink at a convenience store. Put trash in its proper place, too.

Take good care of your car. Proper maintenance, like changing your oil regularly, helps your car last longer and reduces air pollution. Recycle used motor oil. It's the law! Don't forget to recycle your oil bottles and filters, too.

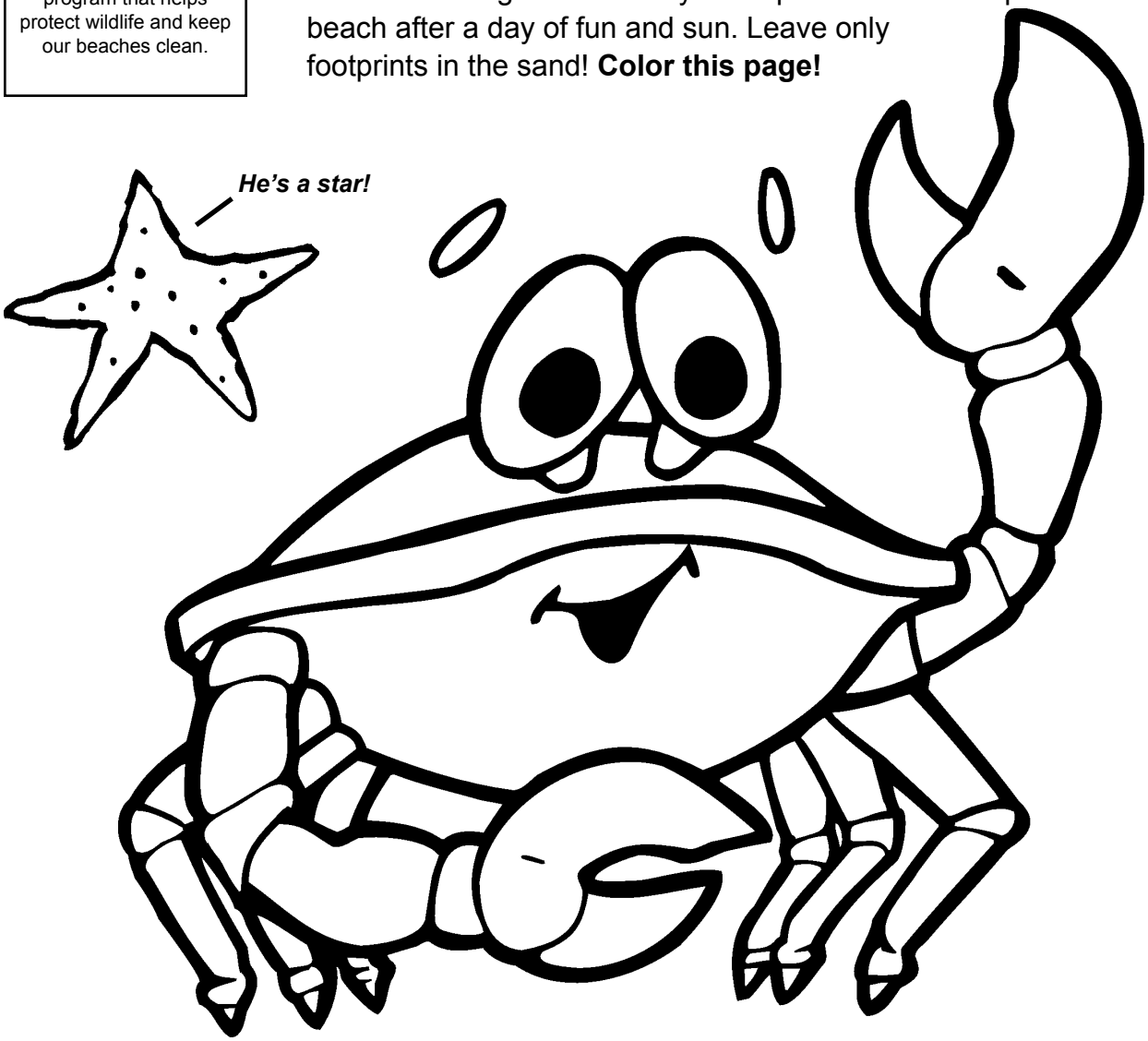
DHEC's Office of Ocean and Coastal Resource Management

www.scdhec.gov

DID YOU KNOW?
DHEC's OCRM sponsors "Adopt-A-Beach," a volunteer litter pickup program that helps protect wildlife and keep our beaches clean.

CURTIS the Crab!

The beach is not only a fun place to play, but it's also the home to hundreds of animals. Some animals mistake trash for food and become sick after eating it. That's why it's important to clean up all litter from the beach after a day of fun and sun. Leave only footprints in the sand! **Color this page!**



Ocean WORDHUNT

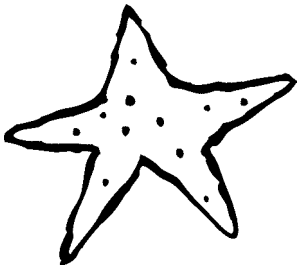
Find these words: *seashell, ocean, beach, crab, starfish, sand, shark* and *wetlands*. The answers are on page 23.

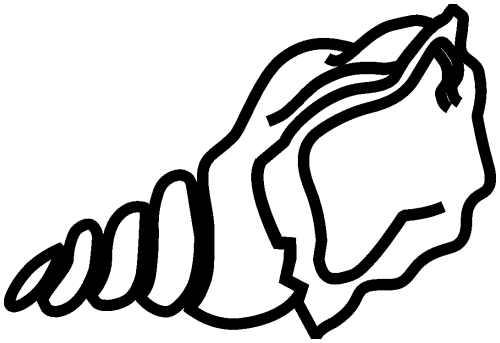
J	S	U	W	E	T	L	A	N	D	S	I	B
C	K	A	A	B	C	R	A	B	H	U	E	I
C	R	Y	N	W	Q	Y	U	F	C	A	A	Z
P	C	A	A	D	F	Y	E	W	C	A	Z	C
S	E	A	S	H	E	L	L	H	S	V	A	H
Q	M	C	K	S	H	A	R	K	P	R	S	R
Y	T	R	O	C	E	A	N	H	P	O	W	W
P	R	C	O	S	T	A	R	F	I	S	H	M

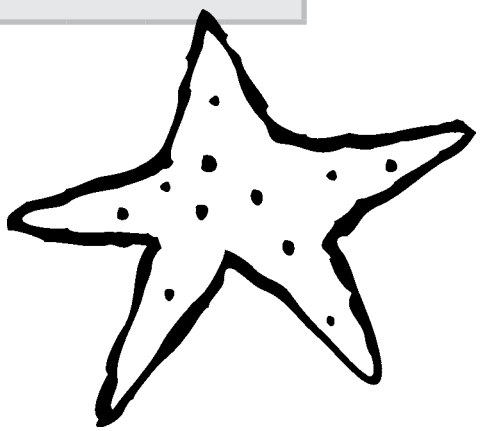
DHEC's Office of Ocean and Coastal Resource Management

www.scdhec.gov

DID YOU KNOW?
Plastic from bottles, bags, toys and food containers can pollute the environment for hundreds of years!







DHEC's Office of Ocean and Coastal Resource Management

www.scdhec.gov

DID YOU KNOW?
Wetlands and marshes are home to many types of animals and plants. Birds, fish, crabs and shrimp all depend on wetlands for food, shelter and reproduction.

SEARCH the Sea!

It's important to keep litter out of the sea to protect the animals that live there. Can you find the things that shouldn't be in the sea?

Can you find the *boat, can, milk jug, tire, plastic bag* and *golf club?* The answers are on page 23.

A-MAZE-ING

DHEC's Office of Ocean and Coastal Resource Management

www.scdhec.gov

DID YOU KNOW?
OCRM is responsible for the protection of the coastal environment and for promoting responsible development along the South Carolina coast.

Keep the beach clean. Help **Curtis the Crab** put the plastic bottle in the recycling bin.

The answer is on page 24.

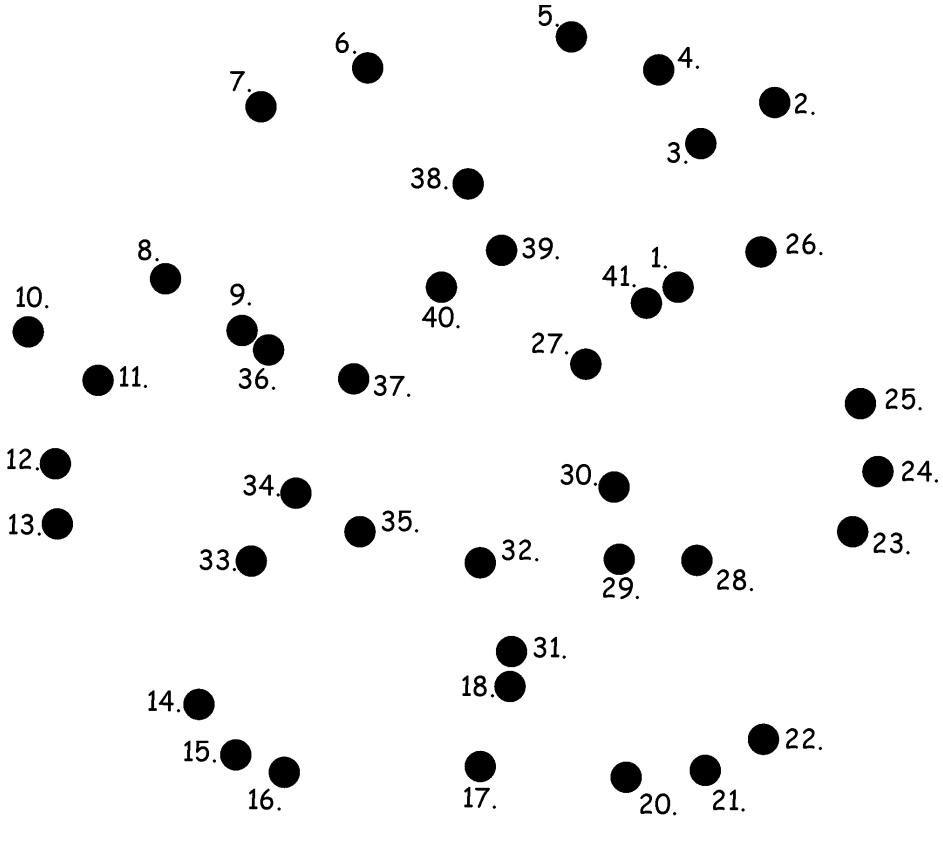
DHEC's Office of Solid Waste Reduction and Recycling

www.scdhec.gov/recycle

DID YOU KNOW?
Recycled paper can be made into notebook paper, envelopes and other items.

RECYCLE South Carolina!

Connect the dots and a familiar image will appear!



The solution is on page 24.

Recycle JUMBLE

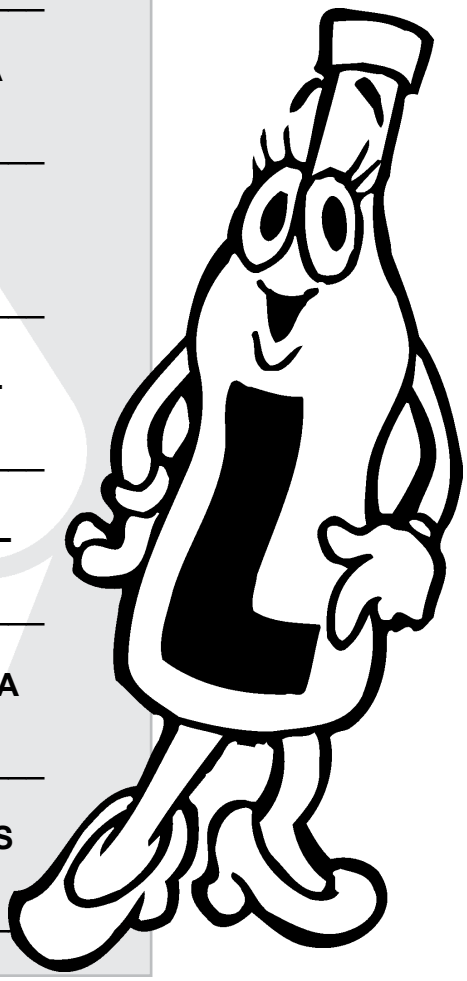
The following items can be recycled. Can you unscramble them? The answers are on page 24.

LTACISP TBLTEOS	ESELT
_____	_____
CTAPLIS AGSB	AEPRP SBGA
_____	_____
IMKL GUSJ	ILO
_____	_____
PAWESNPRE	LOI STOBTEL
_____	_____
UMNUIMAL	LAECR GSASL
_____	_____
ARC ARTESBTIE	RBWNO SSLGA
_____	_____
BDORAACDR	NRGEE SALGS
_____	_____

DHEC's Office of Solid Waste Reduction and Recycling

www.scdhec.gov/recycle

DID YOU KNOW?
Aluminum cans may be back on the store shelf within six weeks of being recycled.



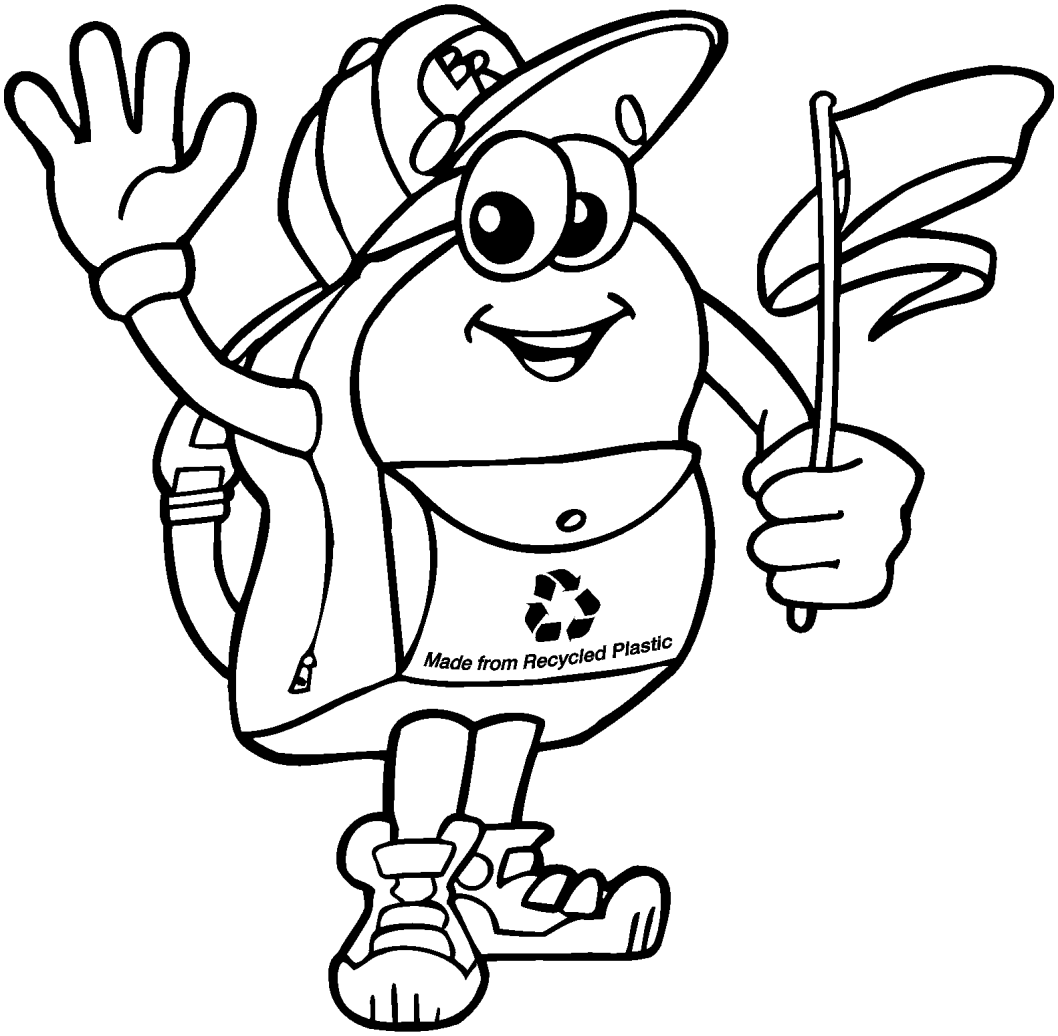
DHEC's Office of Solid Waste Reduction and Recycling

www.scdhec.gov/recycle

RECYCLING TIP:
Always use both sides of your paper, then recycle it.

Buy RECYCLED!

Buy school supplies made from recycled materials. Backpacks and rulers are made from recycled plastic. Pencils and paper are made from recycled newspaper and cardboard. **Color this page!**



Follow the Arrows!

When shopping, look for the chasing arrows on the products you buy.

Made from recycled materials

Recyclable

RECYCLE Plastic Bottles!

DHEC's Office of Solid Waste Reduction and Recycling

www.scdhec.gov/recycle

RECYCLING TIP:
Recycling aluminum cans saves 95 percent of the energy used to make cans from raw materials.

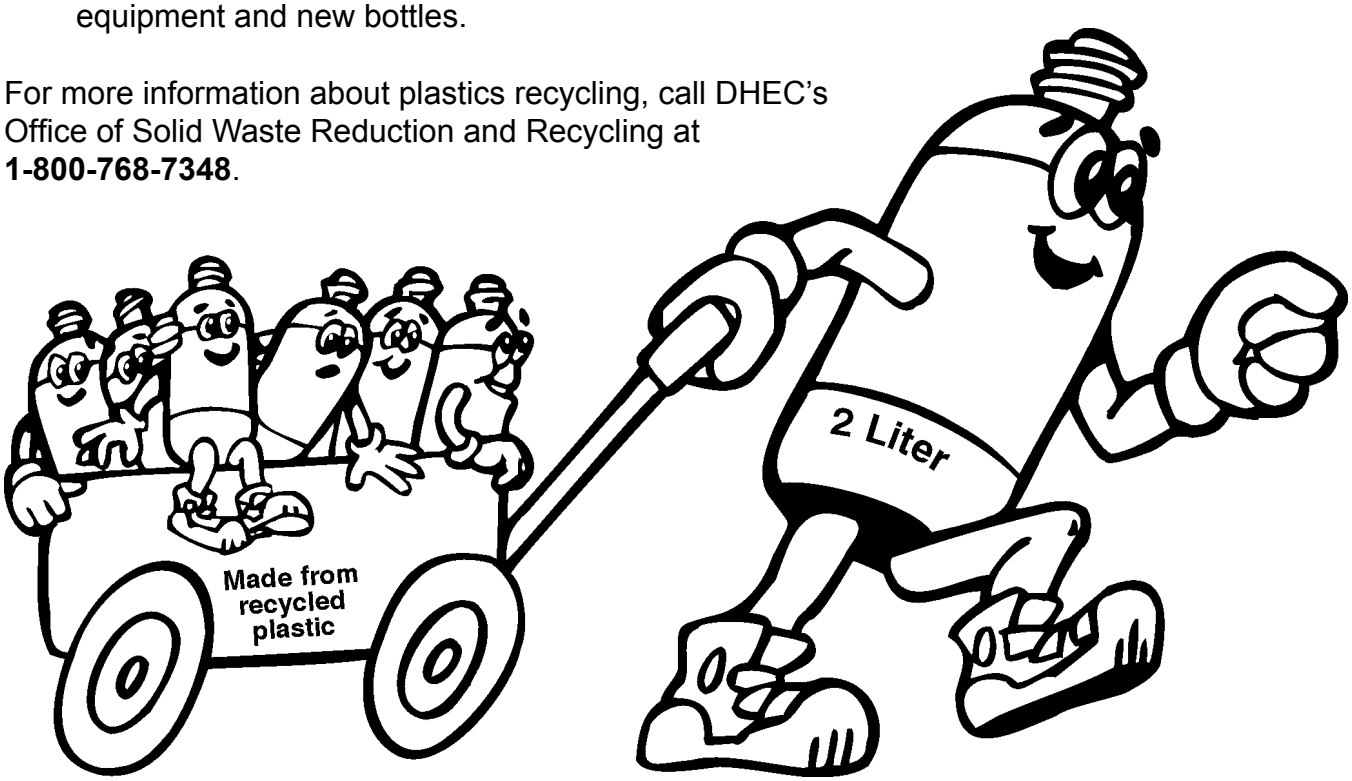
- **Bottles of all sizes can be recycled.** Remember, it's important to recycle those individual beverage bottles (12-, 16- and 20-ounce) that you buy at convenience stores.

- **Here's how to recycle.** Remove the cap and properly discard it. Rinse and flatten to eliminate contamination and save space in your bin. Recycle by putting it in your recycling bin or taking it to a recycling center.

- **Buy recycled plastic, too.** Recycled PET bottles (like soda bottles) can be used to make many new products, including polyester carpet, T-shirts and sweaters, coats, industrial strapping and, of course, new PET bottles. HDPE bottles (like milk jugs) can be made into garden and landscape products and furniture, playground equipment and new bottles.

Recycle your single-serve plastic bottles, too!

For more information about plastics recycling, call DHEC's Office of Solid Waste Reduction and Recycling at **1-800-768-7348**.



DHEC's Office of Solid Waste Reduction and Recycling

www.scdhec.gov/recycle

DID YOU KNOW?
Glass is 100 percent recyclable.

RECYCLE Wordsearch!

Can you find all of the words listed in the column on the left?

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

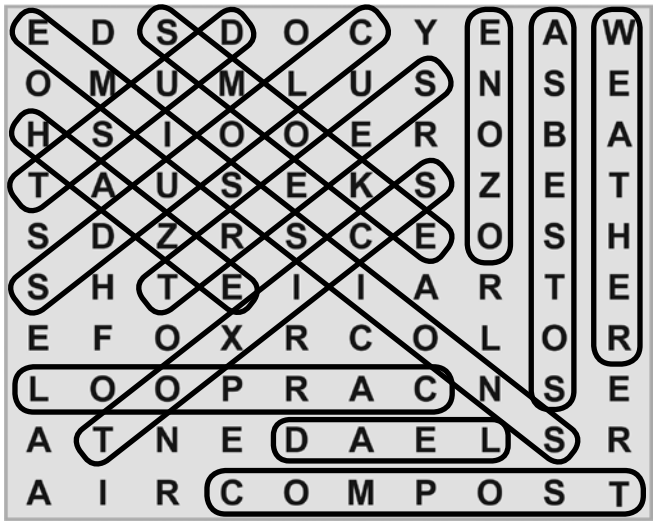
Aluminum
Bin
Bottle
Can
Cardboard
Compost
Glass
Jar
Jug
Motor Oil
Newspaper
Paper
Plastic
Recycle
Reduce
Reuse
Steel
Solid
Waste

The answers are on page 24.

ANSWERS

Air Quality Wordsearch

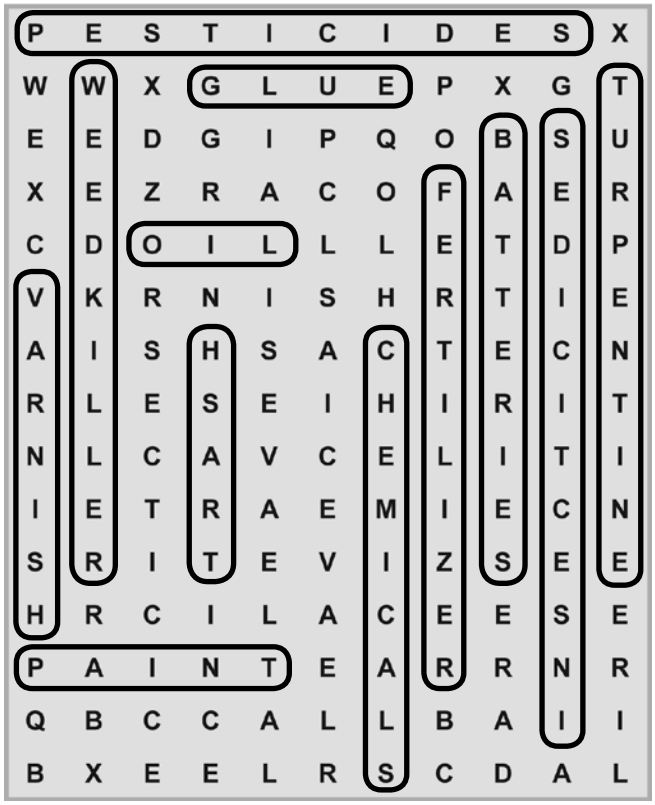
From page 4



Hidden message: ***"Do your share for cleaner air."***

Go with the Flow

From page 8



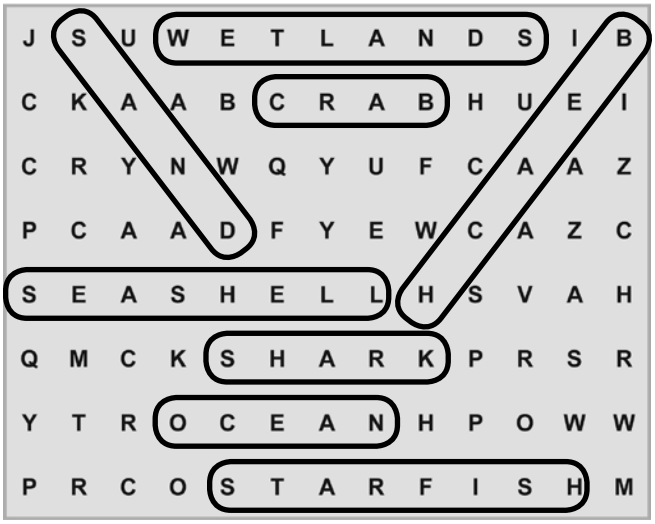
The Three Forms of Water

From page 7

In LIQUID form we know water as RAIN or TAP WATER. In SOLID form, it is ICE. As a GAS, we call it VAPOR. The three forms of water are LIQUID, SOLID and GAS.

Ocean Wordhunt

From page 15



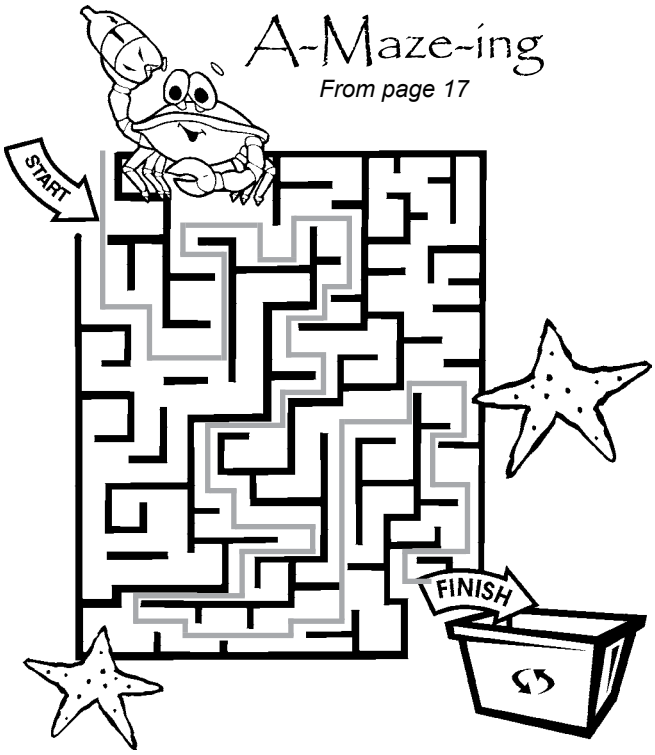
Search the Sea!

From page 16

ANSWERS

A-Maze-ing

From page 17



Water, Water Everywhere!

From page 7

Lakes	Rivers
Streams	Groundwater
Reservoir	Aquifer

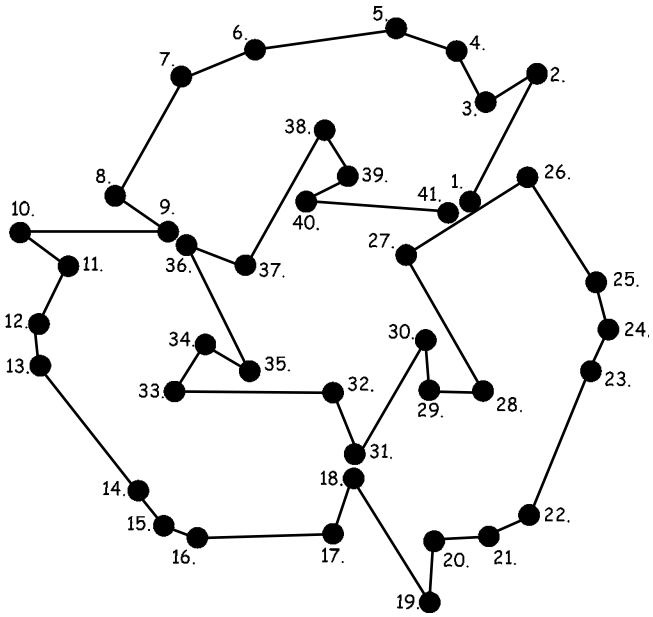
Recycle Jumble

From page 19

Plastic Bottles	Steel
Plastic Bags	Paper Bags
Milk Jugs	Oil
Newspaper	Oil Bottles
Aluminum	Clear Glass
Car Batteries	Brown Glass
Cardboard	Green Glass

Recycle South Carolina!

From page 18



Recycle Wordsearch!

From page 22

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

ATTENTION TEACHERS! HERE ARE SOME EARTH DAY AND EVERY DAY ACTIVITIES FOR YOU!

Eight Ways to Celebrate EARTH DAY AT SCHOOL

1. **Put on an environmental awareness fair.** Feature "hot" environmental concerns such as wildlife issues, global warming and energy use, recycling, forests, air and water pollution and smart growth.

2. **Address a local or global environmental problem in class.** In small groups, have each group brainstorm and decide on an environmental issue to investigate. Have each group do research on the topic and report their findings to the class along with possible solutions.

3. **Get creative!** Have students write poetry, create art or develop dramatic presentations on environmental themes.

4. **Expose your students to environmental issues.** Find out what Earth Day activities are taking place in your community. Invite a speaker to come and talk about environmental issues. Visit **www.scdhec.gov**.

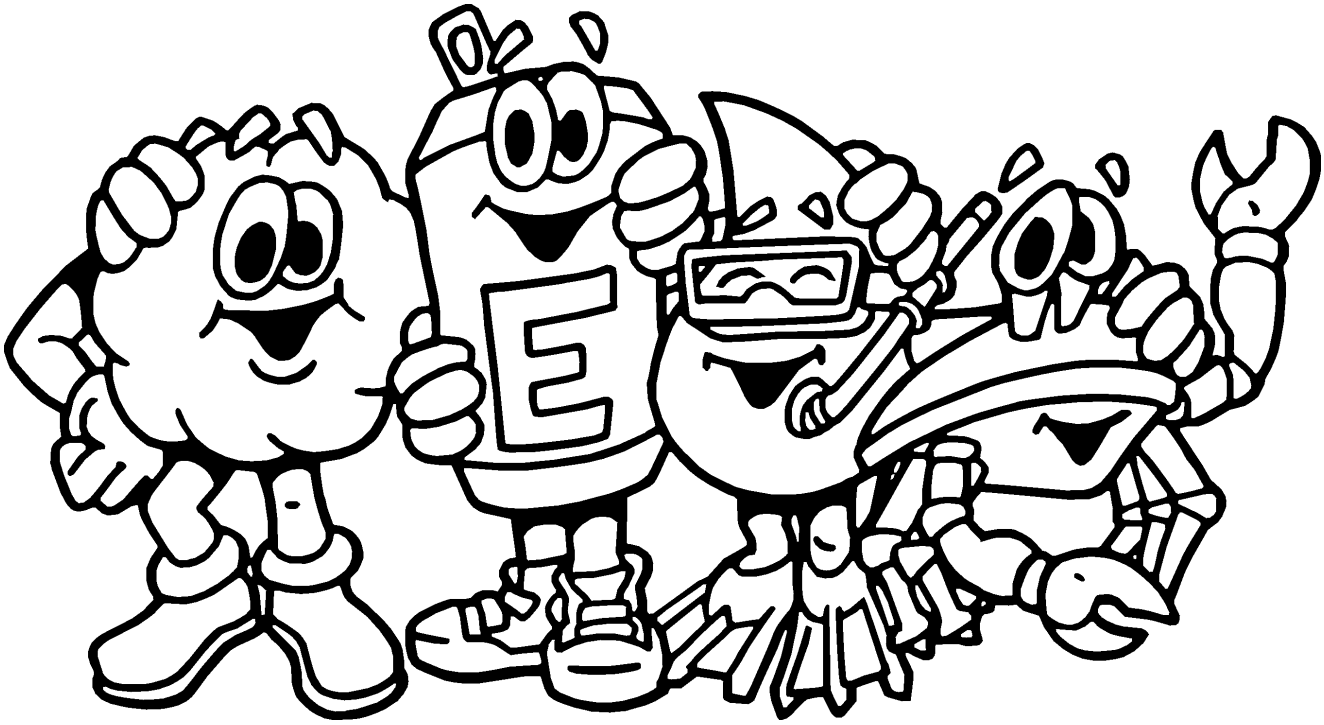
5. **Set up an organic garden at your school.** Start a compost pile for biodegradable items. When it turns to compost, use it in the garden.

6. **Set up a recycling program.** If your school doesn't recycle, set up a program and collect paper, plastic and aluminum cans. If your school does recycle, try to add a new item to your recyclables list.

7. **Create a community green map.** Your map should highlight all of the environmental assets in your community. Include things like local parks, farmers' markets, recycling centers, public transit stations, etc.

8. **Imagine the future.** Have your class write an essay answering the question: "What might the environment be like on Earth Day 2025?" Create a bulletin board or other display of essays and artwork in your classroom or at a central location in your school.

For more Earth Day ideas go to **www.scdhec.gov** and see what Earth Day events are happening in South Carolina.



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CR-011682 3/16