



Environmental Outreach ACTIVITY Book



Presented by the
South Carolina Department of Health and Environmental Control



**DHEC's
Bureau
of Air Quality**

www.scdhec.net/baq

CLEAN AIR

TIP
Remind adults
to refuel their cars
after 6 PM during
the summer.



CLEAN AIR KID

Help keep the air clean by riding your bike or walking to nearby places. Conserving electricity also helps keep the air clean because power plants don't have to burn as much fossil fuel.
Spare the air!

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 exhaust and factories mix with hot sunlight. When humans breathe in 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

WHO ARE THEY?

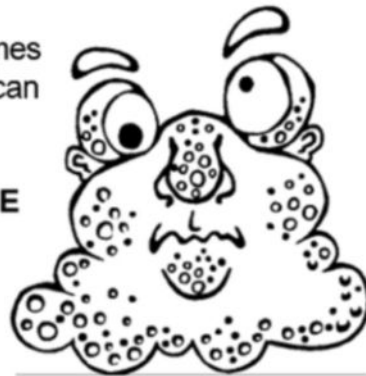
You've met **MR. OZONE**. Now unscramble the names of these other common air pollutants. The answers can be found on page 23.



DHEC's Bureau of Air Quality
www.scdhec.net/baq

DID YOU KNOW?
You can check the **OZONE FORECAST** daily by visiting the Web site listed above.

MR. OZONE



1 **BNARCO NIOXEMOD**

2 **RIA CITXOS**

3 **SETBOSSA**

GRNOTINE EDXIODI

L RTPICAUTEA R METAT

4 **RULUFS IDEXIDO**

5 **ADEL**

6 **ADEL**

7 **ADEL**



**DHEC's
Bureau
of Air Quality**

www.scdhec.net/baq

DID YOU KNOW?

Lichen, a flaky gray fungus found on trees and rocks, is an indicator of good air quality.

**FIND THESE
WORDS:**

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

Air Quality WORDSEARCH

After you find the hidden words, look for the message left by the remaining letters and write it down. The answer is on page 23.



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.

What to Do?

Clean Air Kid has done a good job cleaning the yard and garage. What should he do with the pile of leaves and his leftover paints and cleaners? The answers are on page 23.



**DHEC's
Bureau
of Air Quality**
www.scdhec.net/baq

CLEAN AIR
TIP
Compost your
leaves instead of
burning them.





**DHEC's
Bureau
of Water**

www.scdhec.net/water

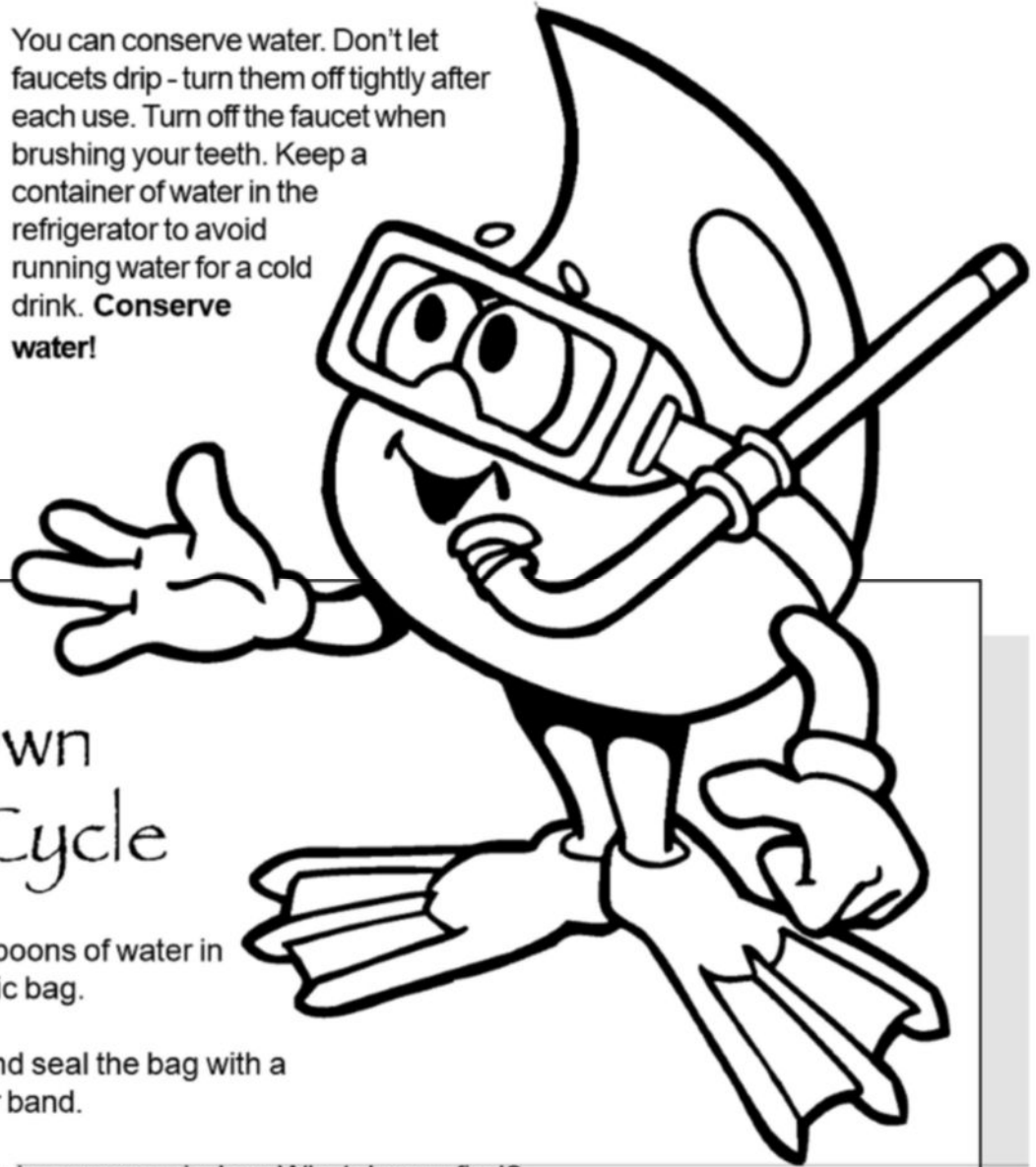
WATER-SAVING

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 small plastic bag.
2. Blow air in and seal the bag with a heavy rubber band.
3. Place the bag in a sunny window. 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...

Unscramble these words to identify the major sources of water we use. The answers can be found on page 23.

KSLEA

SSAMERT

EEOIRRSRV

RREVIS

DGRWRETUNAO

QRFAIUE



**DHEC's
Bureau
of Water**

www.scdhec.net/water

WATER-SAVING

TIP
Take shorter showers; turn off the water when lathering up.



The Three Forms of Water

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 **ZNOERF** form, it is **EIC**. As a **SGA**, we call it **RPVAO**.



**DHEC's
Bureau
of Water**

www.scdhec.net/water

DID YOU KNOW?

Drinking water can be treated by adding air to it, running it through filters or by adding cleaning chemicals to it.

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

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.



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

SINK or SWIM

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.



DHEC's Bureau of Water

www.scdhec.net/water

DID YOU KNOW?

The average American uses about 100 gallons of water a day.

How Do You Measure Up?

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 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 last 10 minutes.

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

Install water dam 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

IN THE KITCHEN...

Washing Dishes

A dishwashing machine uses about 10 gallons of water.

Let the water run (wasting dozens of gallons) MINUS 5

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

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.



DHEC's Division
of Health Hazard
Evaluation

[www.scdhec.net/eqc/
admin/html/fishadv.html](http://www.scdhec.net/eqc/admin/html/fishadv.html)

FISHING
TIP

When fishing, ask
an adult which fish
are safe to eat.

FISHING FUN!



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Division of Health Education and Promotion.



DHEC's Division of Health Hazard Evaluation

www.scdhec.net/eqc/admin/html/fishadv.html

FISHING TIP

When fishing, ask an adult which fish are safe to eat.

Fishing

WORDFIND

Find and circle the following words in the puzzle below: *advisories, bait, boat, bowfin, catfish, fishing, lake, mackerel, mercury, river, sunfish, tackle, trout and worms.* The answers are on page 24.



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

For information on S.C. Fish Consumption Advisories, call DHEC at 1-888-849-7241 or visit www.scdhec.net/eqc/admin/html/fishadv.html.

CONNECT the Dots!

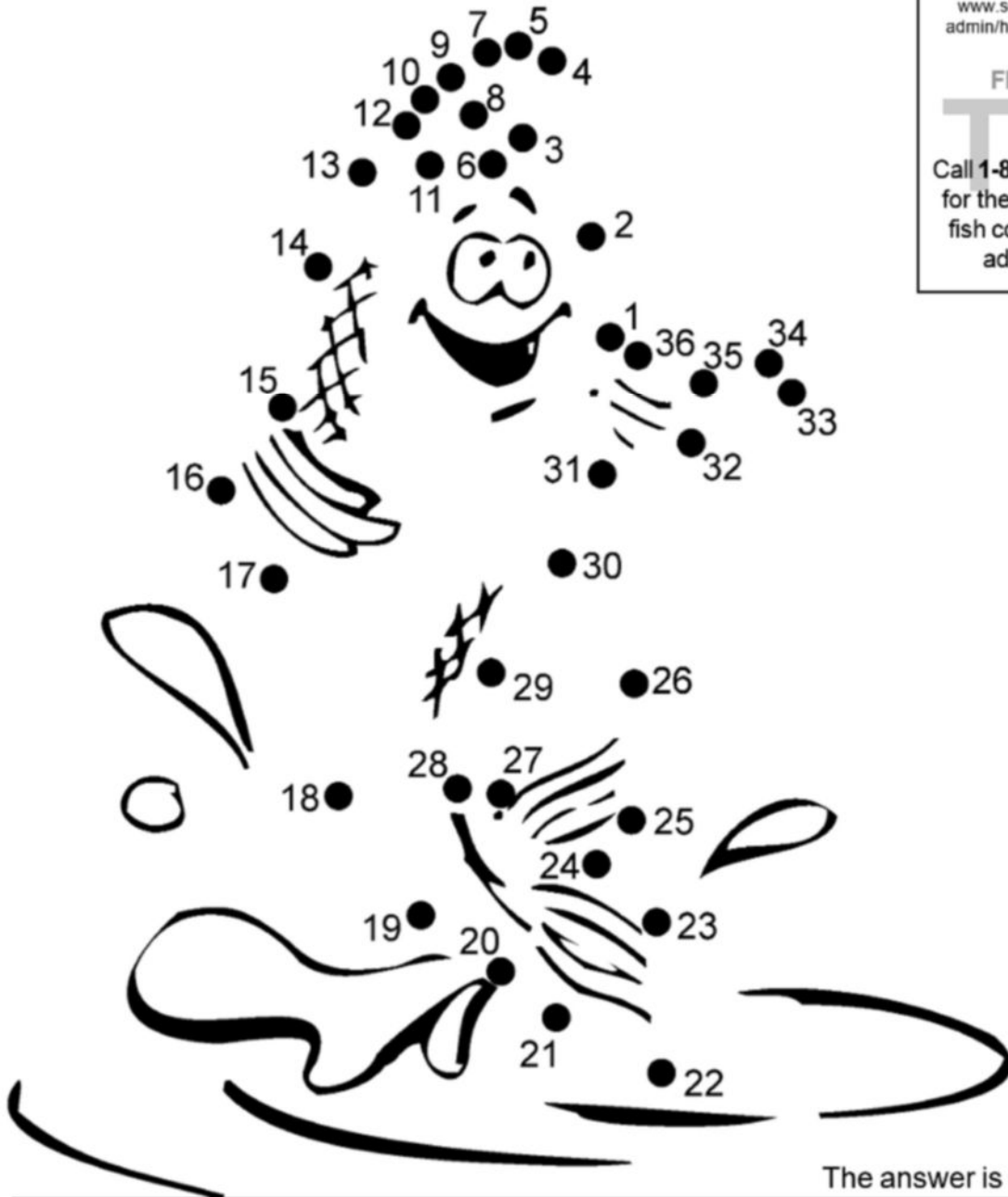


DHEC's Division
of Health Hazard
Evaluation

[www.scdhec.net/eqc/
admin/html/fishadv.html](http://www.scdhec.net/eqc/admin/html/fishadv.html)

FISHING

TIP
Call 1-888-849-7241
for the latest state
fish consumption
advisories.



The answer is on page 23.



DHEC's Office
of Ocean and
Coastal Resource
Management

www.scdhec.net/ocrm

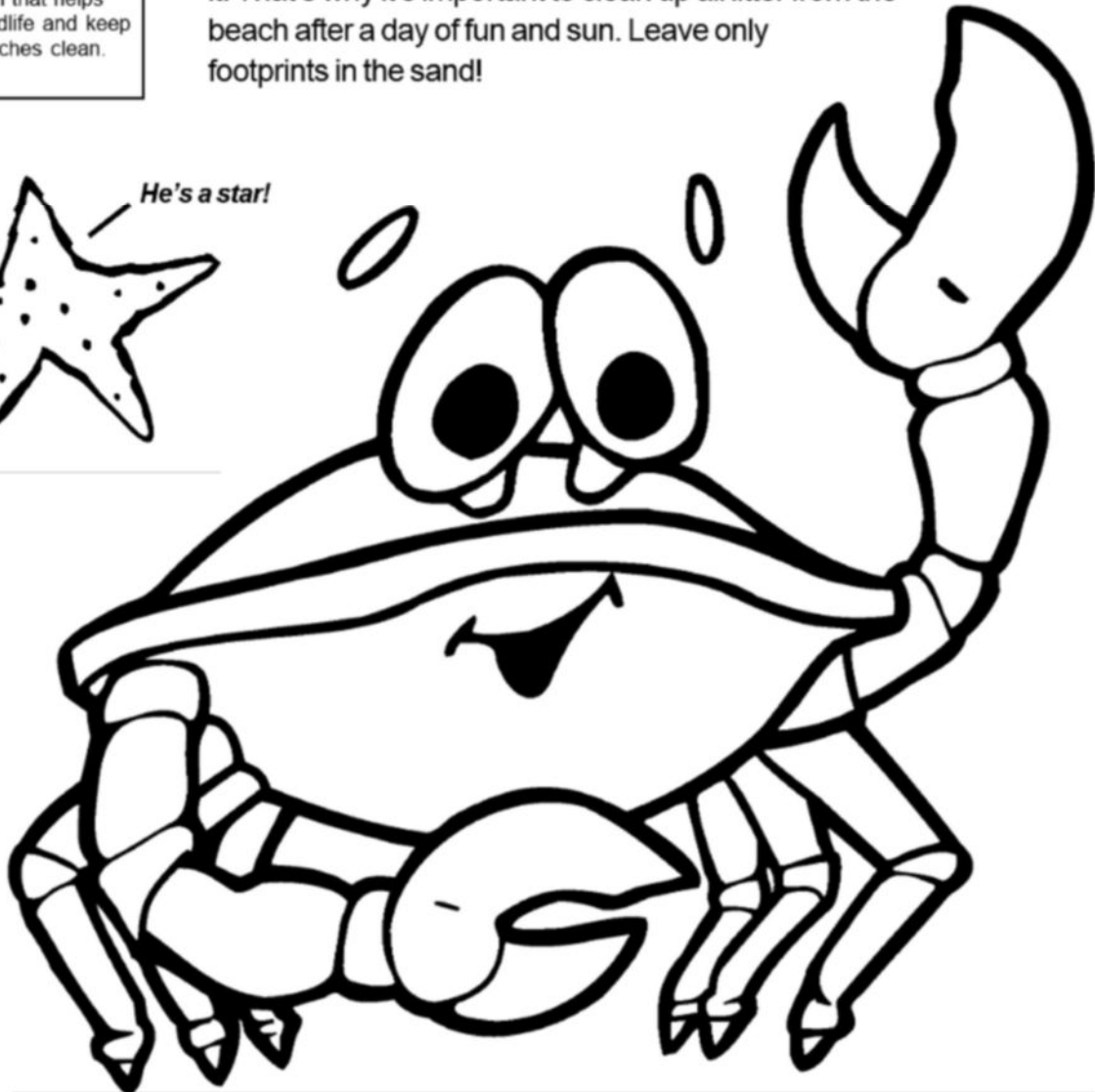
DID YOU KNOW?

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!



SEARCH the Sea!



DHEC's Office
of Ocean and
Coastal Resource
Management

www.scdhec.net/ocrm

DID YOU KNOW?

Wetlands are places that contain water above and/or below the ground that support wildlife and plants. Examples of wetlands are swamps, marshes and bogs.

It's important to keep litter out of the ocean 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* and *golf club*?
The answers are on page 24.





**DHEC's Office
of Ocean and
Coastal Resource
Management**

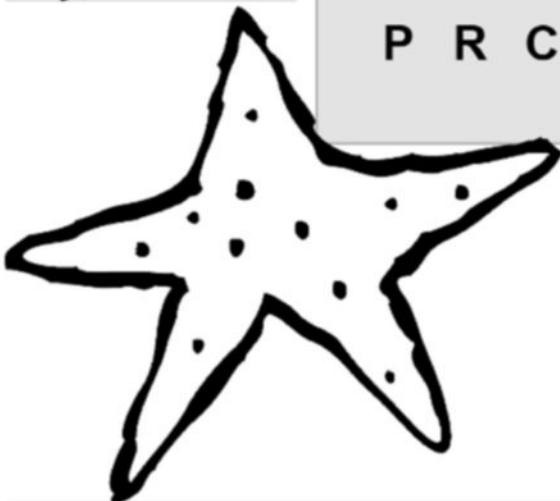
www.scdhec.net/ocrm

DID YOU KNOW?

"CoastWeeks" is an annual celebration of our nation's natural resources. It is celebrated each October.

Ocean WORDHUNT

Find these words: *seashell, ocean, beach, crab, starfish, sand, shark* and *wetlands*. The answers are on page 24.



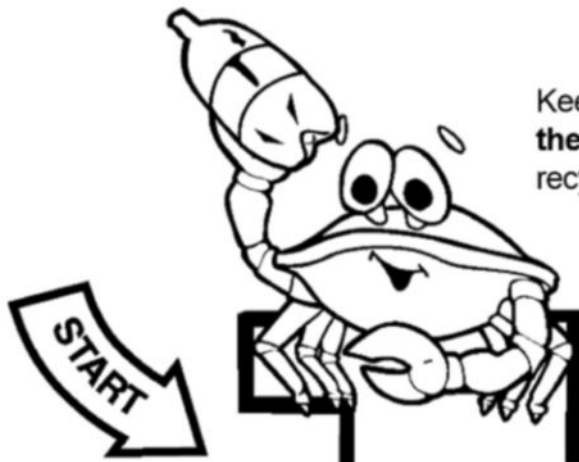
A-MAZE-ING



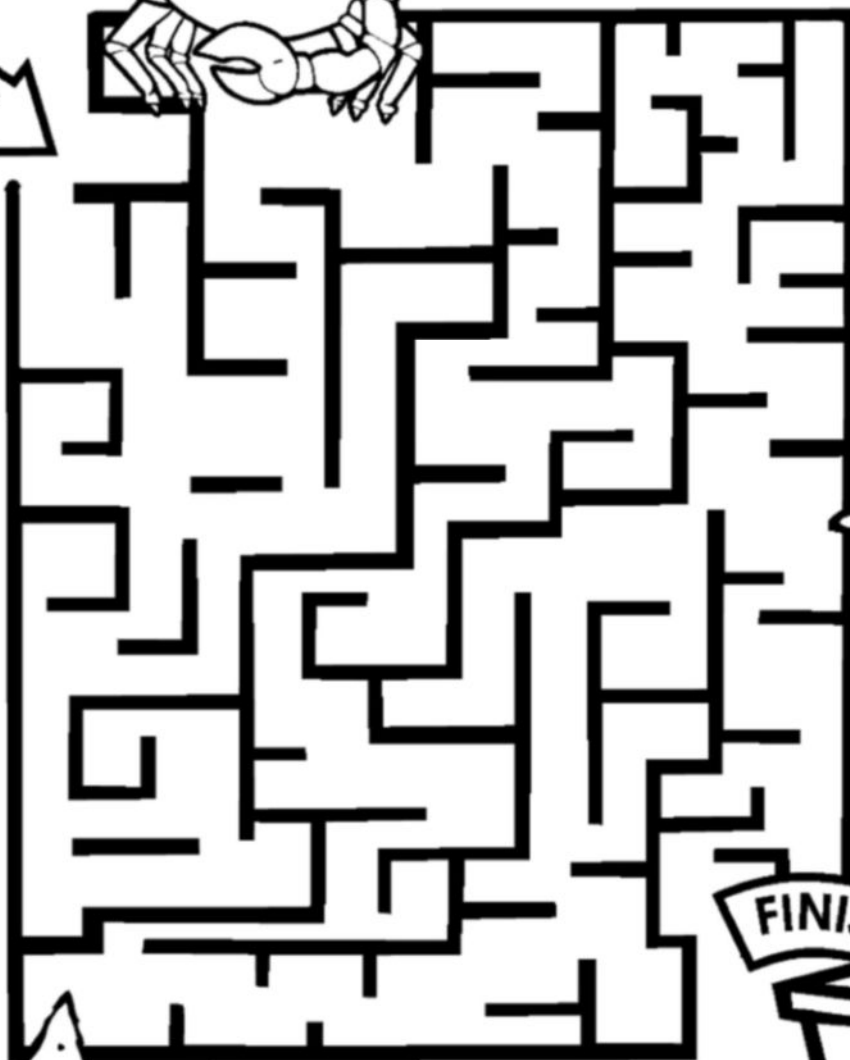
**DHEC's Office
of Ocean and
Coastal Resource
Management**
www.scdhec.net/ocrm

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.



FINISH



The answer is on page 24.



DHEC's Office
of Solid Waste
Reduction and
Recycling

www.scdhec.net/recycle

DID YOU KNOW?

Recycled paper can be made into notebook paper, envelopes and other items.

RECYCLE

South Carolina!

Remember these four simple things:
REDUCE, REUSE, RECYCLE
and **RESPECT**.

Here are a few good reasons to recycle:

Recycling saves valuable landfill space.

Recycling reduces problems associated with litter.

Recycling conserves natural resources.

Recycling saves energy.

Recycling can reduce pollution.



Look for us on television, too!

Recycling JUMBLE

The following items can be recycled. Can you unscramble them? The answers are on page 23.



**DHEC's Office
of Solid Waste
Reduction and
Recycling**

www.scdhec.net/recycle

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

LTACISP TBLTEOS

ESELT

CTAPLIS AGSB

AEPRP SBGA

IMKL GUSJ

ILO

PAWESNPRES

LOI STOBTEL

UMNUIMAL

LAECR GSASL

ARC ARTESBTIE

RBWNO SSLGA

BDORAACDR

NRGEE SALGS





DHEC's Office
of Solid Waste
Reduction and
Recycling

www.scdhec.net/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. What items do you intend to use at school made from recycled materials?



Follow the Arrows!

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



Made from
recycled materials



Recyclable

RECYCLE

Plastic Bottles!

It's easy to recycle plastic bottles, just...

Know the code. There are various types of plastic. Look for the numbered code on the bottom of the container to see what type of plastic it is. All plastic bottles are recyclable, but check which types are recycled in your community. More than 95 percent of all plastic bottles are either #1 PET or #2 HDPE.

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 can be used to make many new products, including polyester carpet, T-shirts and sweaters, polyester carpet, coats, industrial strapping and, of course, new PET bottles. HDPE bottles can be made into garden and landscape products and furniture, playground equipment and new bottles.

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.net/recycle

RECYCLING

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





**South Carolina
Energy Office**

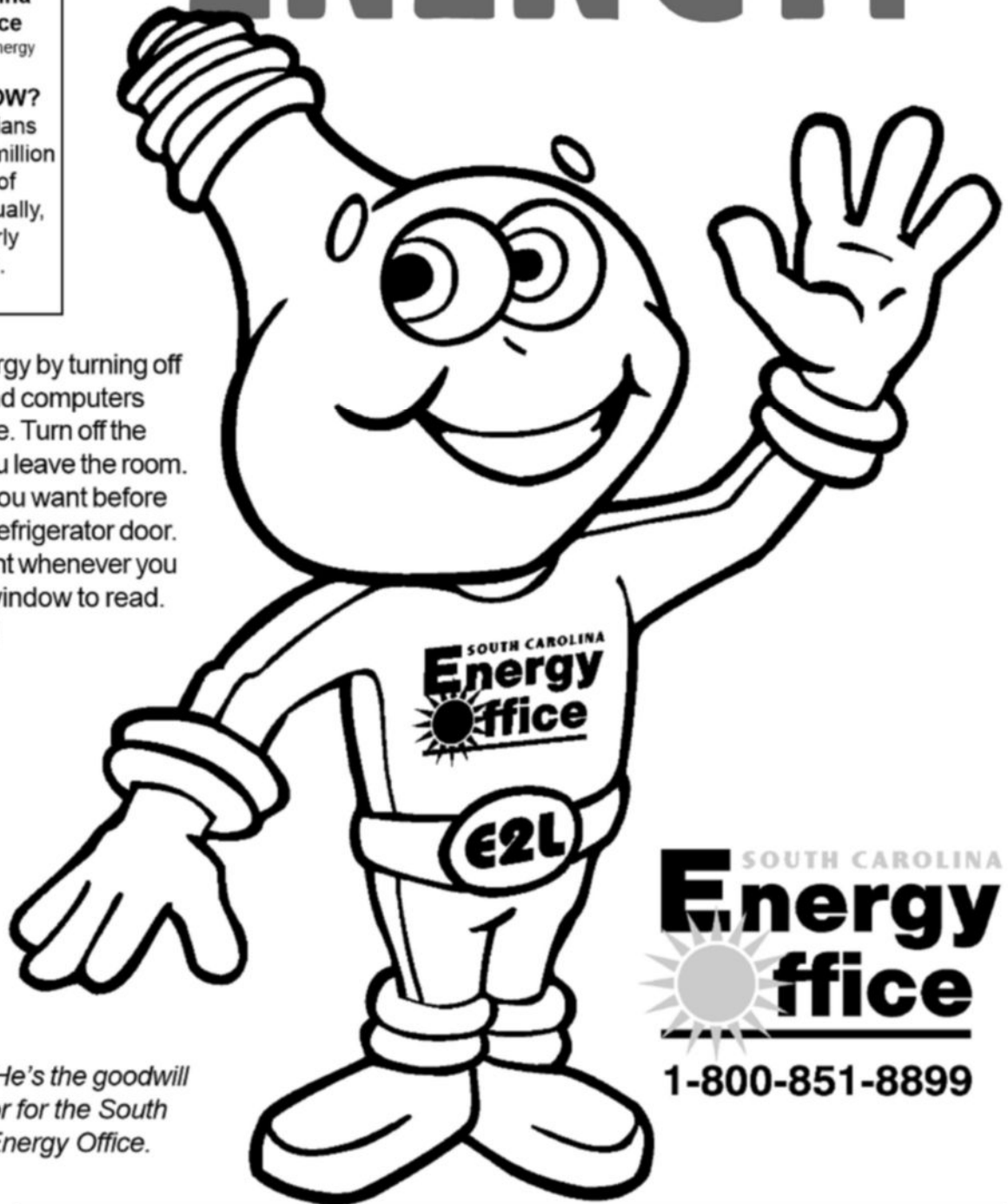
www.state.sc.us/energy

DID YOU KNOW?

South Carolinians
use almost 70 million
megawatts of
electricity annually,
costing nearly
\$4.8 billion.

Conserve energy by turning off
TVs, radios and computers
when not in use. Turn off the
lights when you leave the room.
Decide what you want before
you open the refrigerator door.
Use the sunlight whenever you
can - sit by a window to read.
Save energy!

Conserve **ENERGY!**



1-800-851-8899

*Color "E2!" He's the goodwill
ambassador for the South
Carolina Energy Office.*

ANSWERS

Who Are They?

From page 3

1. Carbon Monoxide
2. Air Toxics
3. Asbestos
4. Nitrogen Dioxide
5. Sulfur Dioxide
6. Lead
7. Particulate Matter

What to Do?

From page 5

Compost leaves in the compost bin. Give the leftover paints and cleaners for others to use.

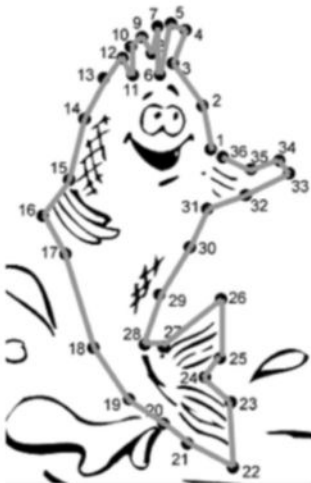
Water, Water Everywhere...

From page 7

- Lakes
- Steams
- Reservoir
- Rivers
- Groundwater
- Aquifer

Connect the Dots!

From page 13



The Three Forms of Water

From page 7

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

Scramble!

From page 11

- Catfish
- Lake Murray
- Fishing Pole
- Broad River
- Bait and Tackle

MESSAGE:
"Get reel safe!"

ANOTHER PUZZLE
MESSAGE:
"Is it safe to eat the fish?"

Recycling Jumble

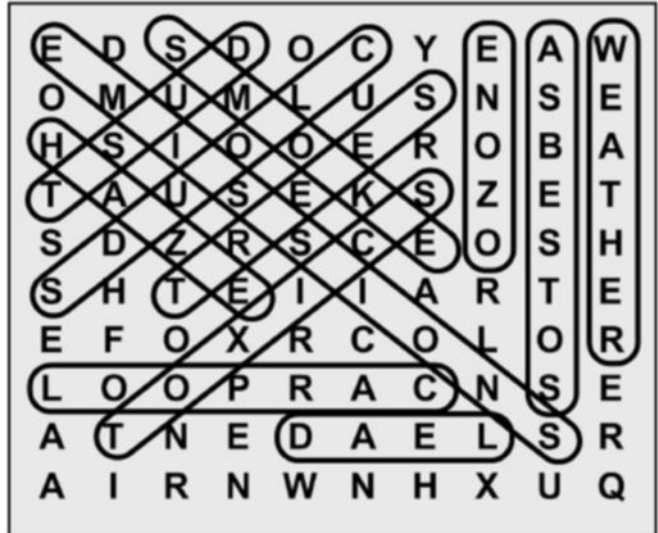
From page 19

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



Air Quality Wordsearch

From page 4



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

Go with the Flow

From page 8

