

South Carolina Department of Health and Environmental Control

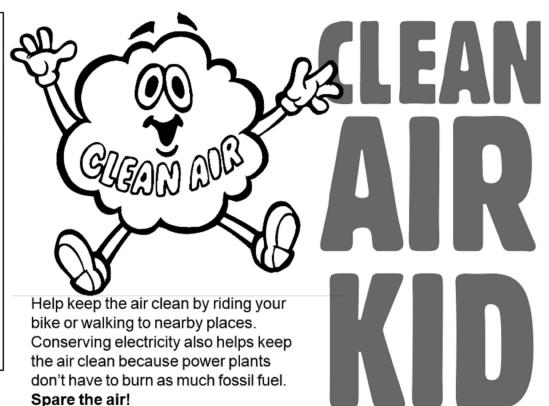


of Air Quality

www.scdhec.net/bag

**CLEAN AIR** 

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



# OZONE

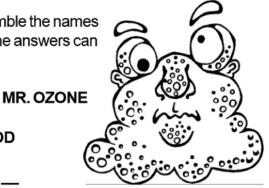
Good up high, bad nearby!

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 polluters. The answers can be found on page 23.



**BNARCO NIOXEMOD** 

**☑RIA CITXOS** 



DHEC's Bureau of Air Quality

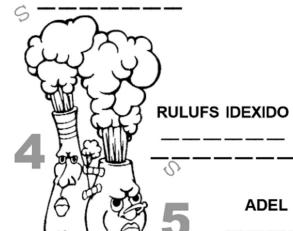
www.scdhec.net/bag

DID YOU KNOW?

You can check the **OZONE FORECAST** daily by visiting the Web site listed above.

**GRNOTINE EDXIODI** 

**SETBOSSA**(())



**LRTPICAUTEA** RMETAT



DHEC'S Environmental Outreach Activity Book



#### 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.

E S D E W D O Υ Α M M U S N S Ε S Н 0 0 E R 0 В Α S Т Α U K S Ζ Т Ζ S S D R C Ε S 0 Н S Ε Н Т Α R Т Ε X 0 R R 0 E P C S 0 R Α N O S N D E R Т F Α Α N N н R W X U Q Α



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 Water

www.scdhec.net/water

WATER-SAVING

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!

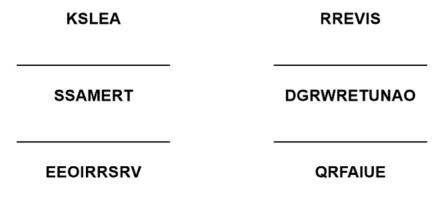
Create C Your Own Water Cycle

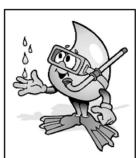
- Put two teaspoons of water in a small plastic bag.
- Blow air in and seal the bag with a heavy rubber band.
- 3. Place the bag in a sunny window. What do you find?

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.



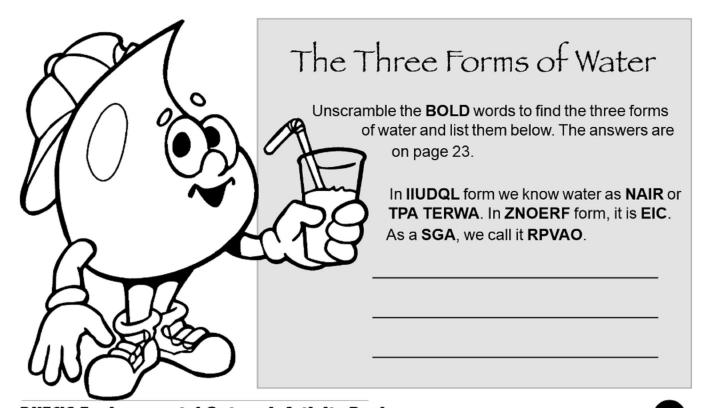


DHEC's Bureau of Water

www.scdhec.net/water

WATER-SAVING

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





#### 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

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

В

X

Ε

Е

#### Р Е S т C D Е S X W X G U Е Р X G т Е P S U Ε D G Q 0 В Z X Е R Α C 0 F Α Ε R D Ε P С 0 т D K S R н R т П Е Ν S S Α C т Е C N Α ı н R L Е S Е ı н ı R ı т Ν C Α ٧ С Ε т Ε т R Α Е М ı Е C N R т ٧ Z S Ε S ı Е ı Е R Ε Е S Ε н C Α C P Α ı т Е Α R N N R Q В C C Α В Α

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#### 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.



## SINKORSWIM

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 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 watersaving 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.

PLUS<sub>2</sub> 7 to 9 minutes 5 to 6 minutes PLUS<sub>4</sub> 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; PLUS8

#### Flushing the Toilet

use to water plants

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

Flush only when you must PLUS<sub>5</sub> Install low-flow toilets PLUS 10 PLUS 10 Install water dam

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 PLUS 5 or washing

#### 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

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

#### OUTSIDE...

#### Watering Plants and the Lawn

A sprinkler hose uses 10 gallons per minute.

PLUS 5 Use an automatic shut-off valve

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

PLUS 6 Use a drip hose

#### 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



#### DHEC's Bureau of Water

www.scdhec.net/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.



## FISHING FUN!

#### DHEC's Division of Health Hazard Evaluation

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

**FISHING** 

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



Artwork reproduced with permission from the Arkansas Department of Health, Division of Health Education and Promotion.

# SCRAMBLE!

Unscramble each of the clue words about fishing and copy the letter in the numbered boxes to the boxes with the same numbers below. The answers are on page 23.

FITHACS				www.scdhec.net/eqc/ admin/html/fishadv.html
LEKA RYAUMR	3 10 7 2	8	9	Call 1-888-849-7241 for the latest state
NSHIIFG LEPO		1	11	fish consumption advisories.
DORBA EVRIR	4		6	
ITAB NAD KAETLC				5
1 2 3	3 4 5 6 7	7 8 9 10	∐ ! 0 11	

**READY FOR ANOTHER PUZZLE?** Use the code chart to fill in the message below. For example, for the number 15, you would put the letter E in the blank. The answer is on page 23.

	1	2	3	4	5	6	7	
1	Α	В	С	D	Е	F	G	
2	Н	1	J	K	L	М	N	22 35 22 36 35 11 16 15 36 31
3	0	Р	Q	R	S	Т	U	15 11 36 36 21 15 16 22 35 21 ?
4	٧	W	Χ	Υ	Z			

DHEC's Division of Health Hazard

**Evaluation** 



#### DHEC's Division of Health Hazard Evaluation

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

**FISHING** 

When fishing, ask

an adult which fish are safe to eat.

# Fishing WORDFIND

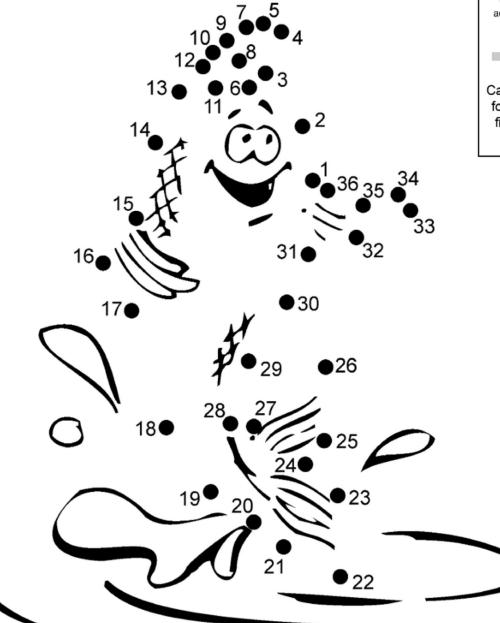
Find and circle the following words in the puzzle below: advisories, bait, boat, bowfin, catfish, fishing, lake, mackerel, mercury, river, sunfish, tackle, trout and worms. The answers are on page 24.





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

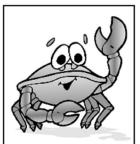
www.scdhec.net/eqc/ admin/html/fishadv.html

#### 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

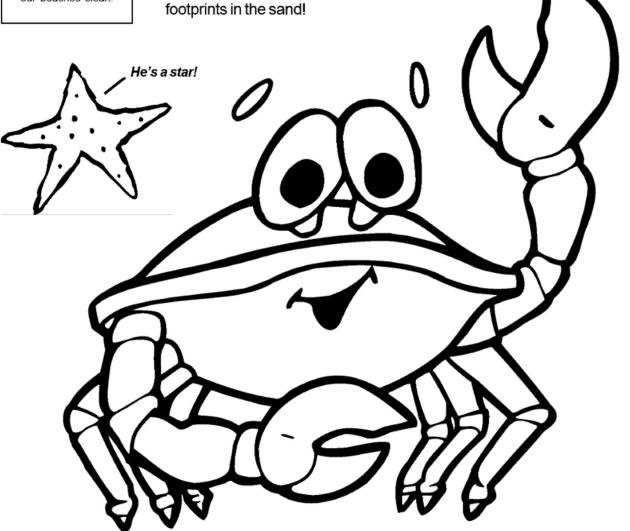
www.scdhec.net/ocrm

#### 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!

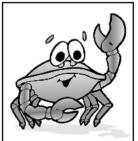
The beach is not only a fun place to play, but it's also the home to hundreds of animals. Some animals mistake trash for food and become sick after eating it. That's why it's important to clean up all litter from the



beach after a day of fun and sun. Leave only

# the Sea!

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?



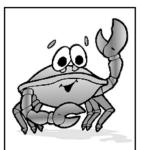
**DHEC's Office** of Ocean and **Coastal Resource** Management

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,





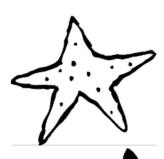
#### DHEC's Office of Ocean and Coastal Resource Management

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.

J S U W E T L A N D S I B

CKAABCRABHUEI

CRYNWQYUFCAAZ

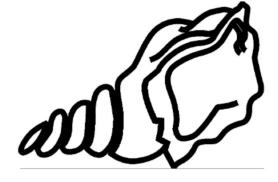
PCAADFYEWCAZC

SEASHELLHSVAH

QMCKSHARKPRSR

YTROCEANHPOWW

PRCOSTARFISHM



### A-MAZE-ING Keep the beach clean. Help Curtis **DHEC's Office** the Crab put the plastic bottle in the of Ocean and recycling bin. **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.

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.



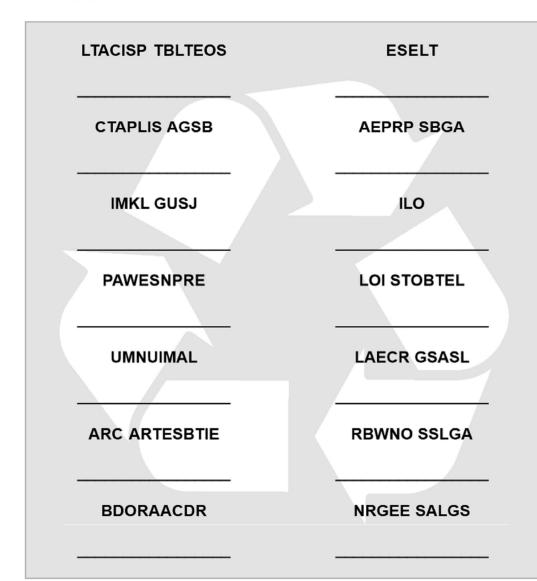


Look for us on television, too!

DHEC'S Environmental Outreach Activity Book

# Recycling

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.





DHEC's Office of Solid Waste Reduction and Recycling

www.scdhec.net/recycle

RECYCLING

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?

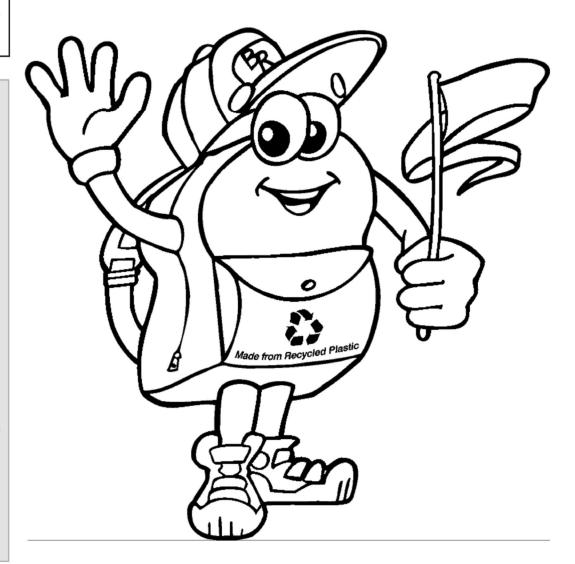
#### Follow the Arrows!

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



Made from recycled materials





## RECYCLE Pastic 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.

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.

#### 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**.





#### South Carolina Energy Office

www.state.sc.us/energy

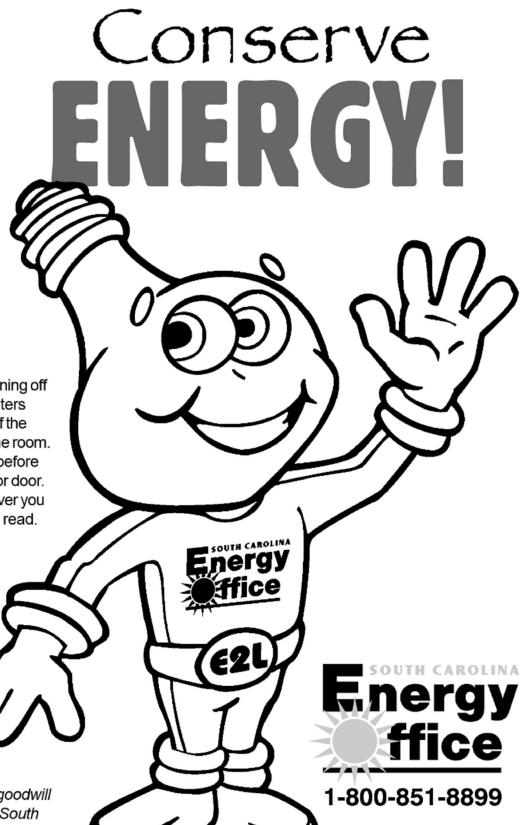
#### DID YOU KNOW?

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!

**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

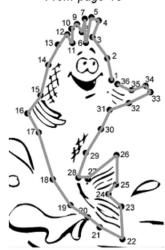
Compost leaves in the compost bin. Give the leftover paints and cleaners for others to use.

#### 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!"

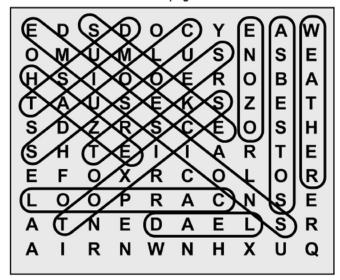
ANOTHER PUZZLE MESSAGE: "Is it safe to eat the fish?"

#### 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



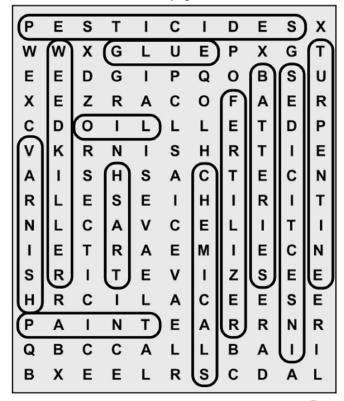
### Air Quality Wordsearch



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

#### Go with the Flow

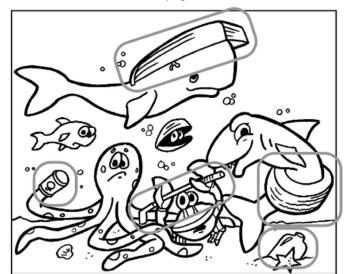
From page 8



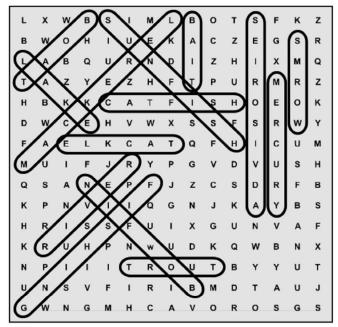
### ∽ ANSWERS

#### Search the Sea!

From page 15



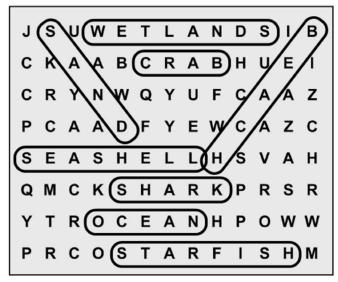
### Fishing Wordfind



#### Ocean Wordhunt

From page 16





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