

# **TAKE THE LEAP WITH BUDDY!!**

**LEARN HOW YOU CAN HELP KEEP WATERWAYS CLEAN!**



## **ACTIVITY LEARNING BOOK**



**SOUTH BROWARD DRAINAGE DISTRICT  
6591 S.W. 160<sup>th</sup> Ave., Southwest Ranches, Florida 33331**

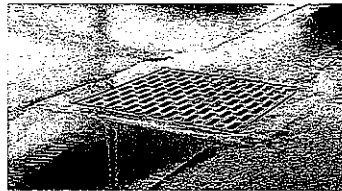
**954-680-3337**

BUDDY SAYS:

When rain falls , where do you think the water goes? Does it soak into the ground? Does it sit in puddles until it disappears?

If you answered yes, you are partially right. Some of the water flows over the land surface, heading to the nearest canal or lake. We call this stormwater runoff.

In cities and towns, the water can't soak through the pavement, rooftops or concrete. The collects in gutters and usually flows straight into a storm drain. You would recognize a storm drain as the big grate in the road where the water disappears, like the one in the picture below. Actually it connects to a pipe which carries the water directly to a lake or canal.



Never throw anything down storm drains. They are for rainwater only.

Pick up pet waste.

Be careful to not let fertilizers or pesticides get into the waterways.

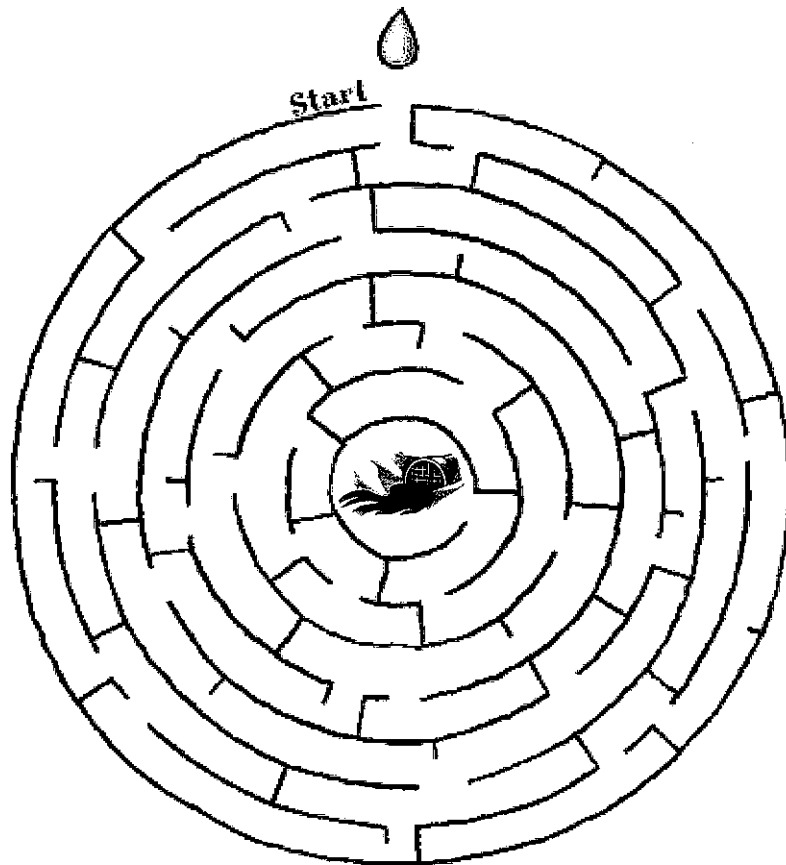
**ENJOY THE FOLLOWING ACTIVITY PAGES TO LEARN MORE ABOUT KEEPING THE WATERWAYS CLEAN AND HOW YOU CAN HELP.**



## Storm Drain Maze

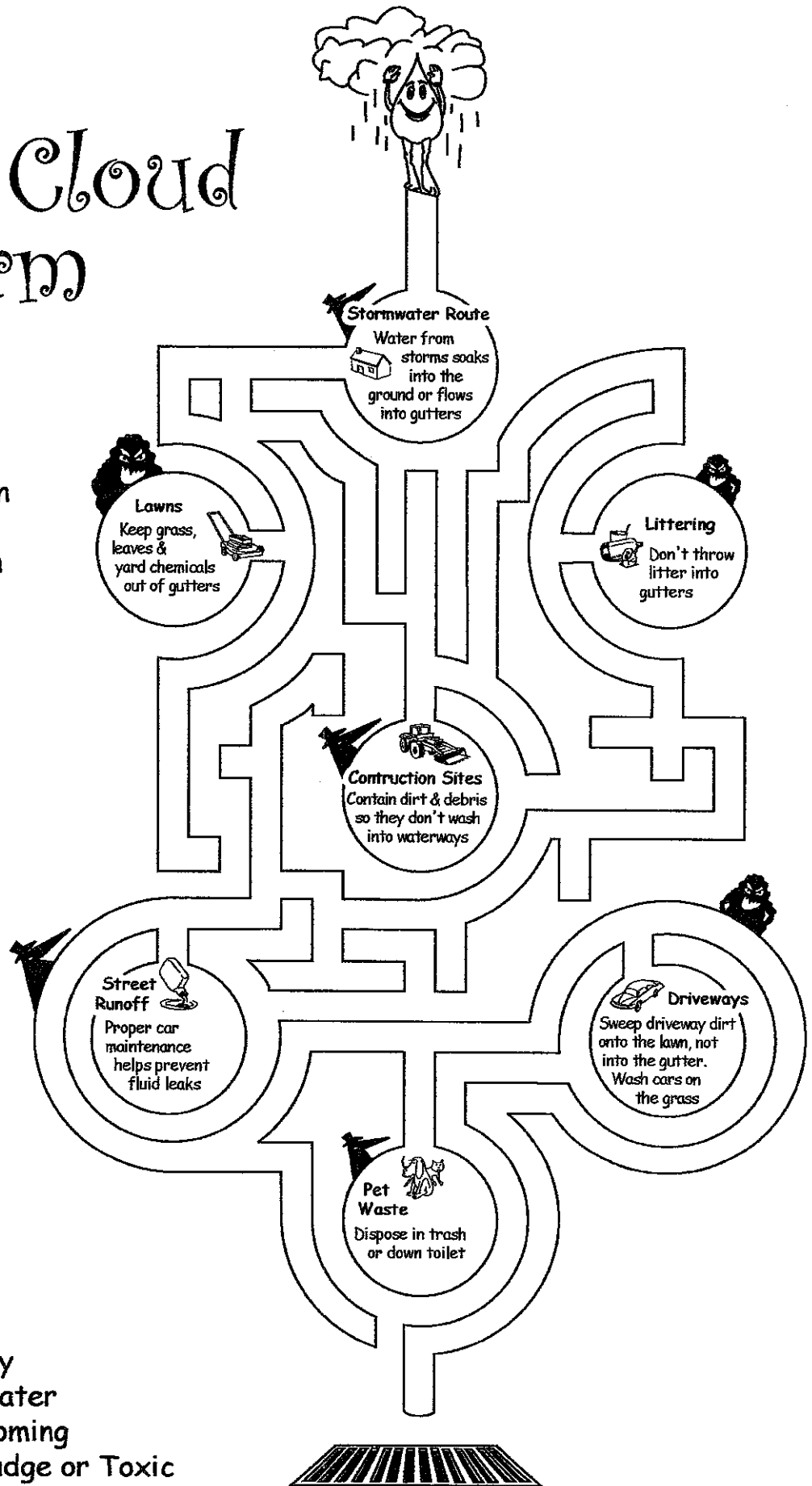
Cities and towns have more stormwater runoff than other areas in the country because they have more concrete. The water can not soak into the ground since all of the cement blocks the water, so it goes straight into the storm drains where it flows directly into the bay.

**INSTRUCTIONS:** Make sure that only rain goes down the storm drain. Lead the water droplet through the maze and into the storm drain.



# From Storm Cloud to Storm Drain

The Stormwater system channels rain and snowmelt into gutters, which drain into streams and rivers. When people pollute stormwater, they also pollute our natural waterways.



Help Droplet journey through the stormwater system without becoming contaminated by Sludge or Toxic

# POLLUTION

Often we think that water pollution only comes from big oil spills or huge factories. We forget that there are lots of little sources of pollution all around us. Stormwater from cities can become very polluted. Oil drips on driveways, fertilizers on lawns, loose dirt in areas with no plants, or dog poop can all be carried by stormwater to a drain and on to a lake or stream.

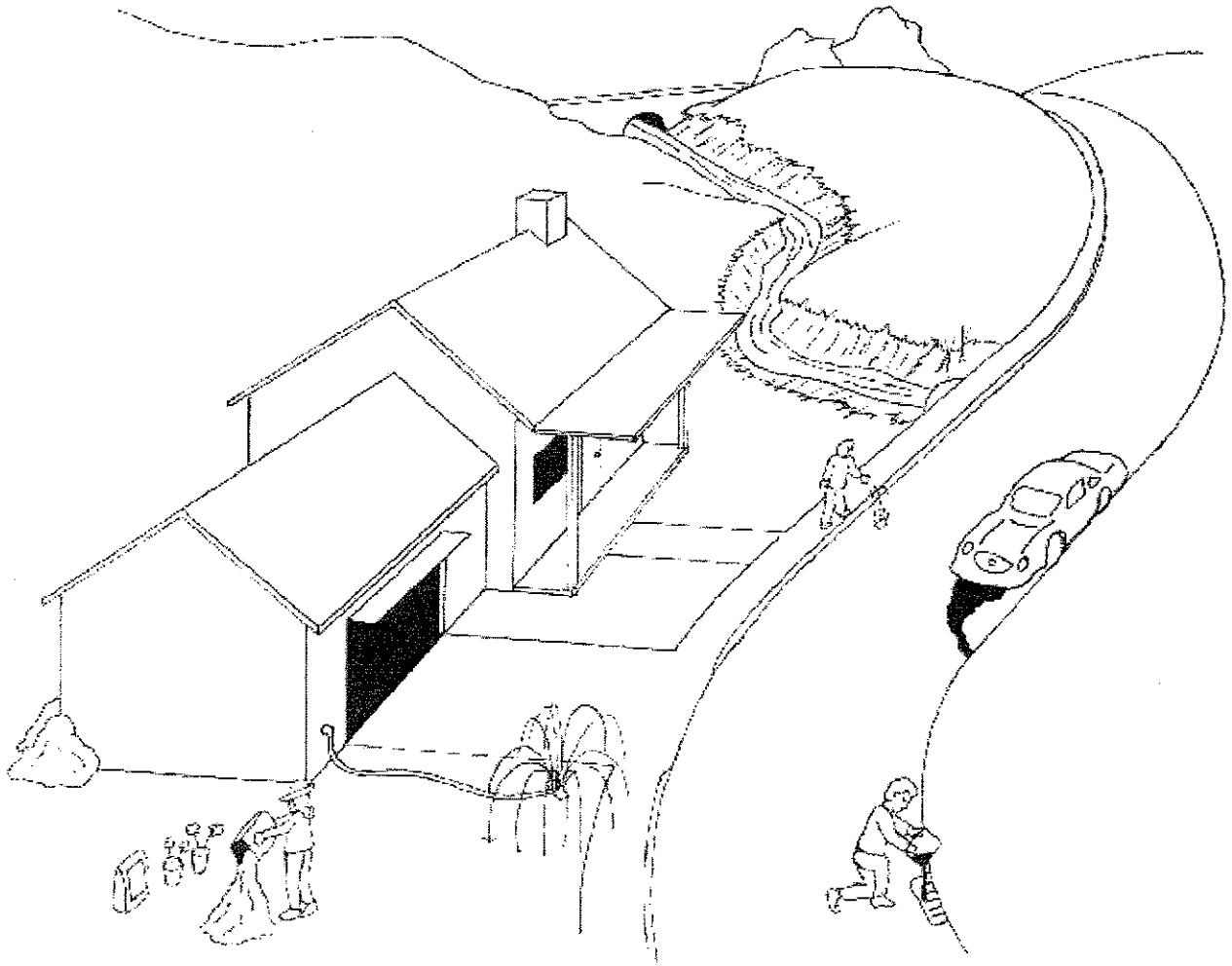
Find these stormwater and pollution words in the word search:

Concrete  
Drain  
Driveway  
Fertilizers  
Lawn  
Oil  
Pesticides  
Plants  
Rain  
Rooftops  
Sediment  
Stormwater  
Stream

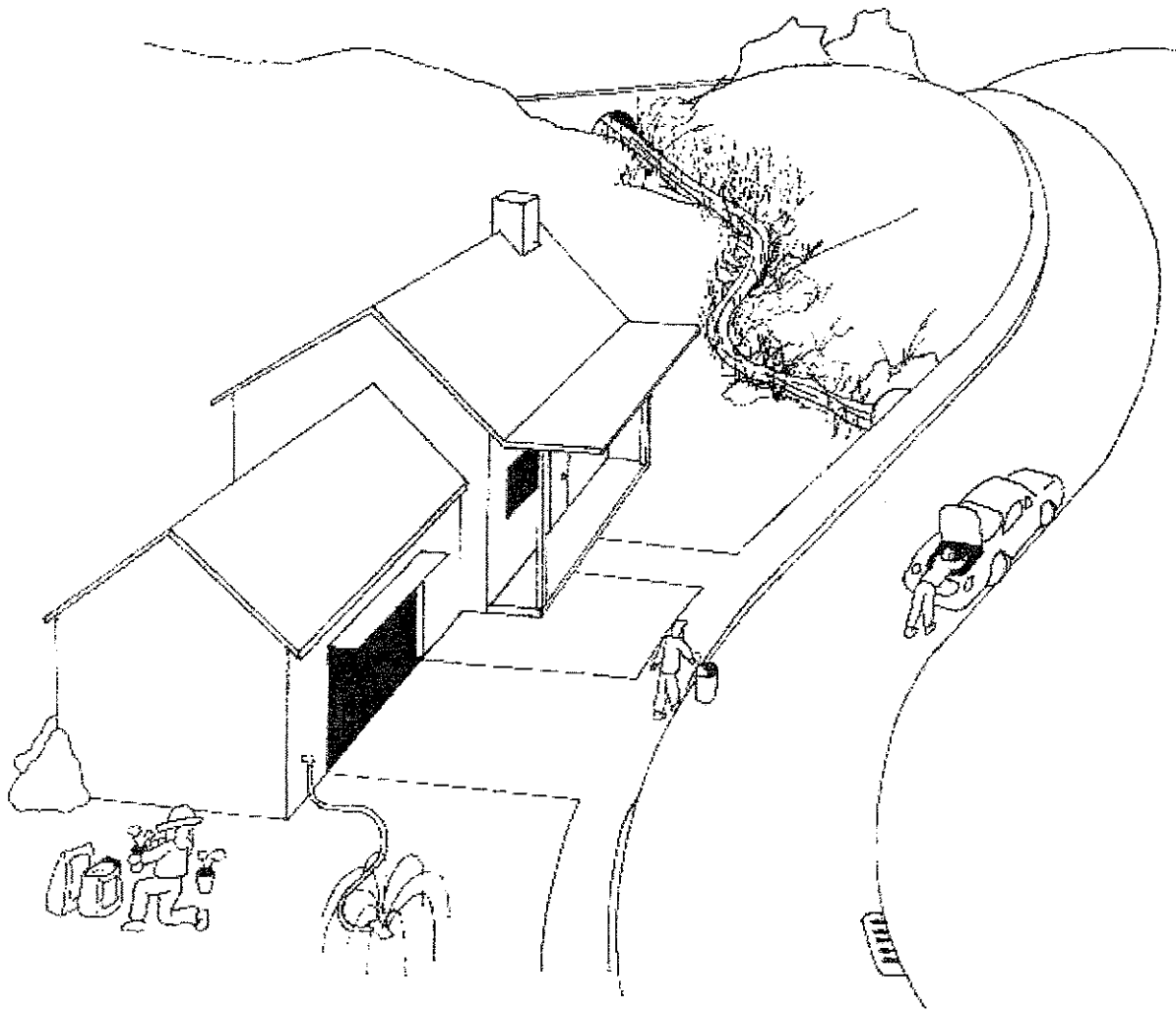
I	N	E	P	R	W	S	L	I	O	R	S	N	J	B
A	Z	W	A	E	T	I	F	O	P	Q	T	Y	Q	U
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F	X	D	E	A	W	Q	I	U	W	J	Z	M	C	U
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Z	L	M	L	F	T	U	D	C	G	A	K	X	L	X

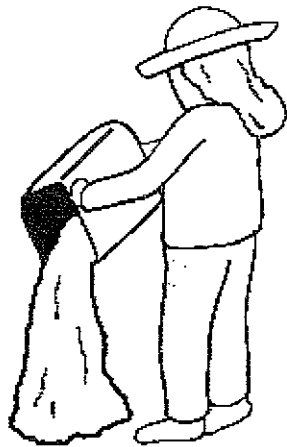
# STORMWATER POLLUTION SEARCH

Compare the picture on this page with the picture on the next page.  
Circle all the differences between them. You should circle 6 things.



What do these differences have to do with protecting our water from stormwater runoff? Look at the next 6 pages to find out!





### **Oops!**

This woman is dumping fertilizer or pesticides directly on her lawn.



### **This looks better!**

Only use as much fertilizer or pesticide as you need and be careful not to spill.

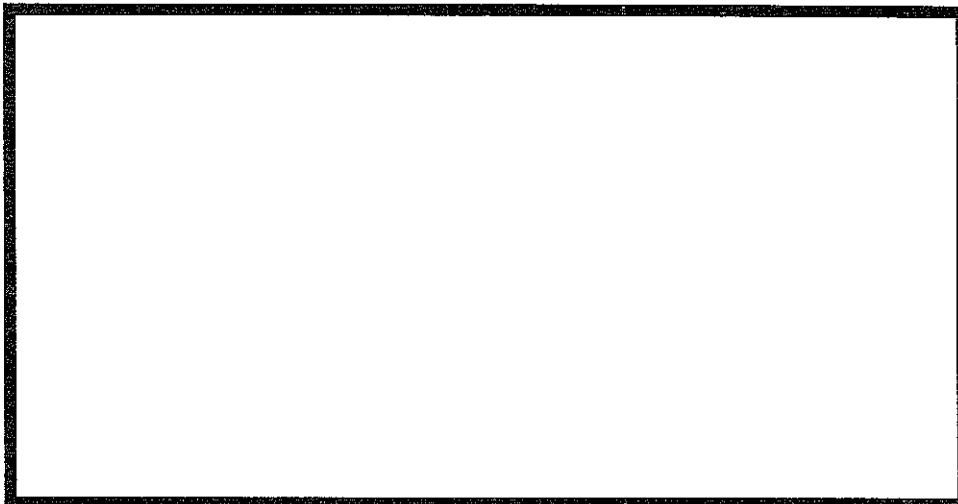
Remember:

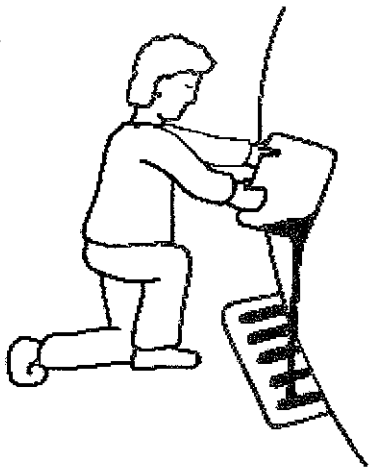
- ★ Fertilizers can help our lawns become nice and green. But, when they wash into lakes and streams, they can pollute the water and use up all the oxygen that the fish need.
- ★ Pesticides keep harmful insects from damaging lawns and gardens, but if they wash into our lakes and stream they'll kill the fish and other critters that live there.

**Who cares?**

Fish need lots of clean water with no pesticides and plenty of oxygen.

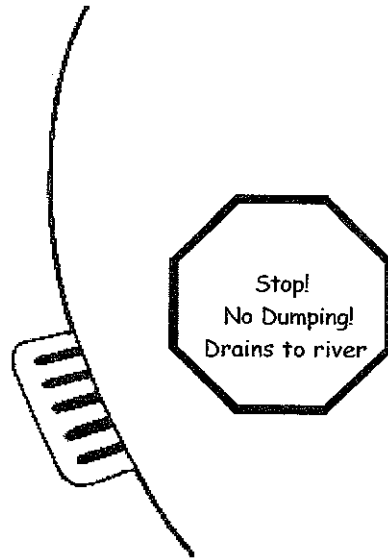
Draw a picture of a fish or some other cool animal that lives in water.





### Oops!

This man is dumping chemicals down the storm drain.

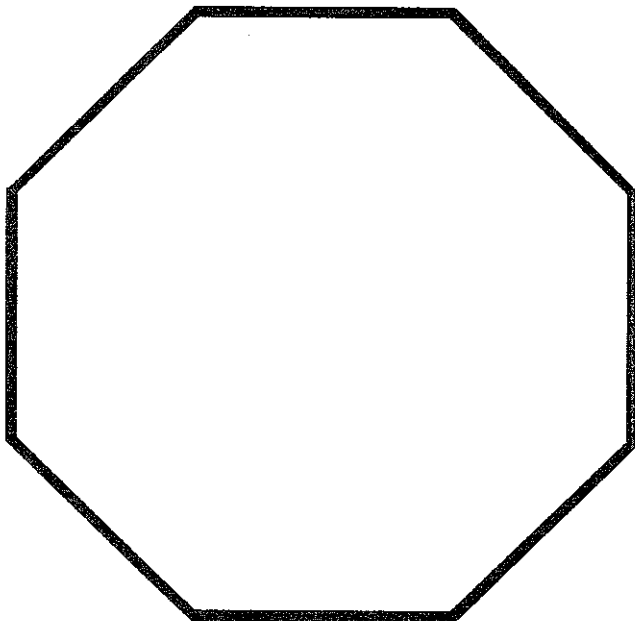


### This looks better!

Never put something down a drain that you think might hurt a fish.

### Remember:

- ★ Encourage your parents to only buy as much cleaner and paint as they need. Substitute less poisonous products when you can.
- ★ Always dispose of hazardous waste like used motor oil, antifreeze, cleaners and paints properly. Check for hazardous waste disposal days in your community.

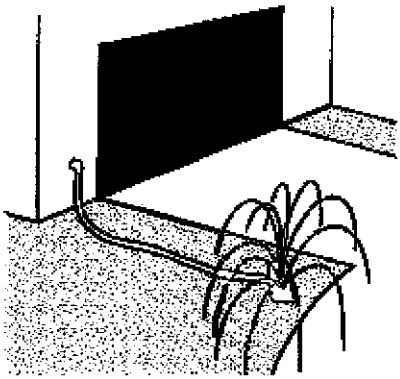


### Who cares?

Remember that storm drains often go straight to a stream or lake. You can help by reminding others not to dump anything down these drains.

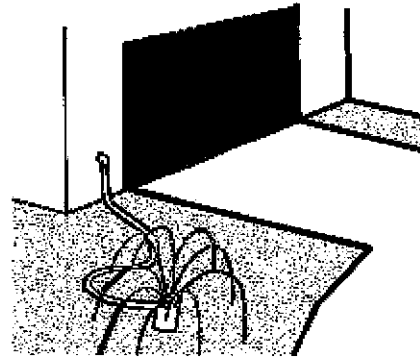
**Draw a picture** in this sign that reminds people why they shouldn't dump wastes into a storm drain.





### Oops!

Don't water the driveway or the sidewalk. We live in a dry state and need to conserve water.



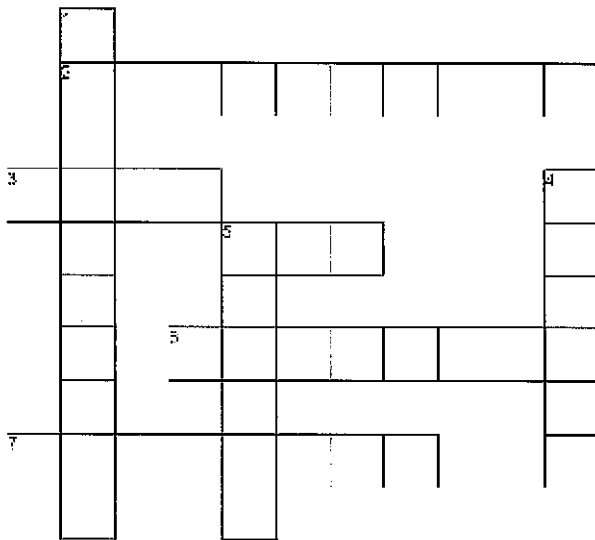
### This looks better!

The water that lands on a driveway or sidewalk doesn't help your lawn, and ALSO washes pollutants into storm drains.

### How can you help?

- ★ Place sprinklers so that the water lands only on the lawn.
- ★ Water the lawn or garden during the cooler times of the day.
- ★ Don't water on windy days. The water may blow away and be wasted.
- ★ Try to wash your car (or even your dog!), on your lawn or someplace that doesn't run straight into the street.

Do this crossword puzzle about water conservation!

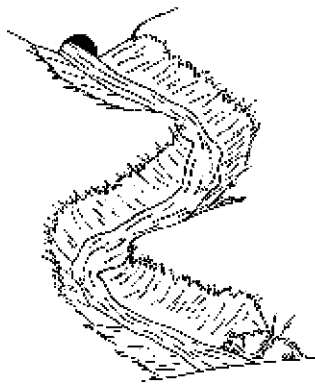


### Across

- 2) Can wash into storm drains and streams from the driveway
- 3) Can blow away water while sprinkling
- 5) Wash this on the grass
- 6) Do this because we live in a dry state
- 7) Water that lands on this does not help your lawn

### Down

- 1) Only water lawns, not driveways, with these
- 4) Water can carry pollutants here
- 5) Water only in this part of the day



### Oops!

The bare banks let dirt wash straight into the stream. This can cloud the water and smother fish eggs.



### This helps!

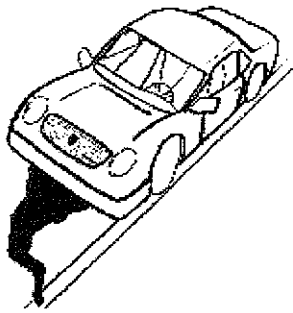
A few plants go a long way. The roots keep the bank from eroding. Plus the plants look nice!

How can you help?

- ★ Help your community plant trees or leave native grasses and shrubs along a stream bank to reduce erosion.
- ★ Walk only along existing trails when near water.

Solve the hidden message! Use the clues below.

♥ ⚙ ✂ ✕ + ⚙ ✕ ☆ ⚙ ♪ ⚙ ● ⚙ ■ ◆ ✂ ⇒ ◆ ✂ ♠ ◆ ♥ ⚙ ☆ ◆ ✓ ⚙ ✂ ● !			
✂=A	✓=R	♪=D	⚙=E
✕=P	●=M	✂=L	+=K
♠=F	⇒=U	◆=T	☆=S
⚙=I	■=N	♥=H	✕=O
H _____ _____! _____			



### **Oops!**

Oil that drips from cars can wash straight into our lakes and streams.



### **Fix those leaks!**

Oil and antifreeze make our cars run well, but leaks can be very dangerous to fish, birds and even cats and dogs!

### **Another use for cat litter!**

Did you know that cat litter absorbs leaks from cars really well? Spread it on the ground over the leak, let the oil and junk soak up, then sweep up the cat litter. Remember to dispose of the cat litter properly (with your household garbage.)

### **Unscramble the words below:**

**Hint- they are all found on this page!**

1. iol \_\_\_\_\_

2. dsrpi \_\_\_\_\_

3. zifnreeeat \_\_\_\_\_

4. abgager \_\_\_\_\_

5. klsae \_\_\_\_\_

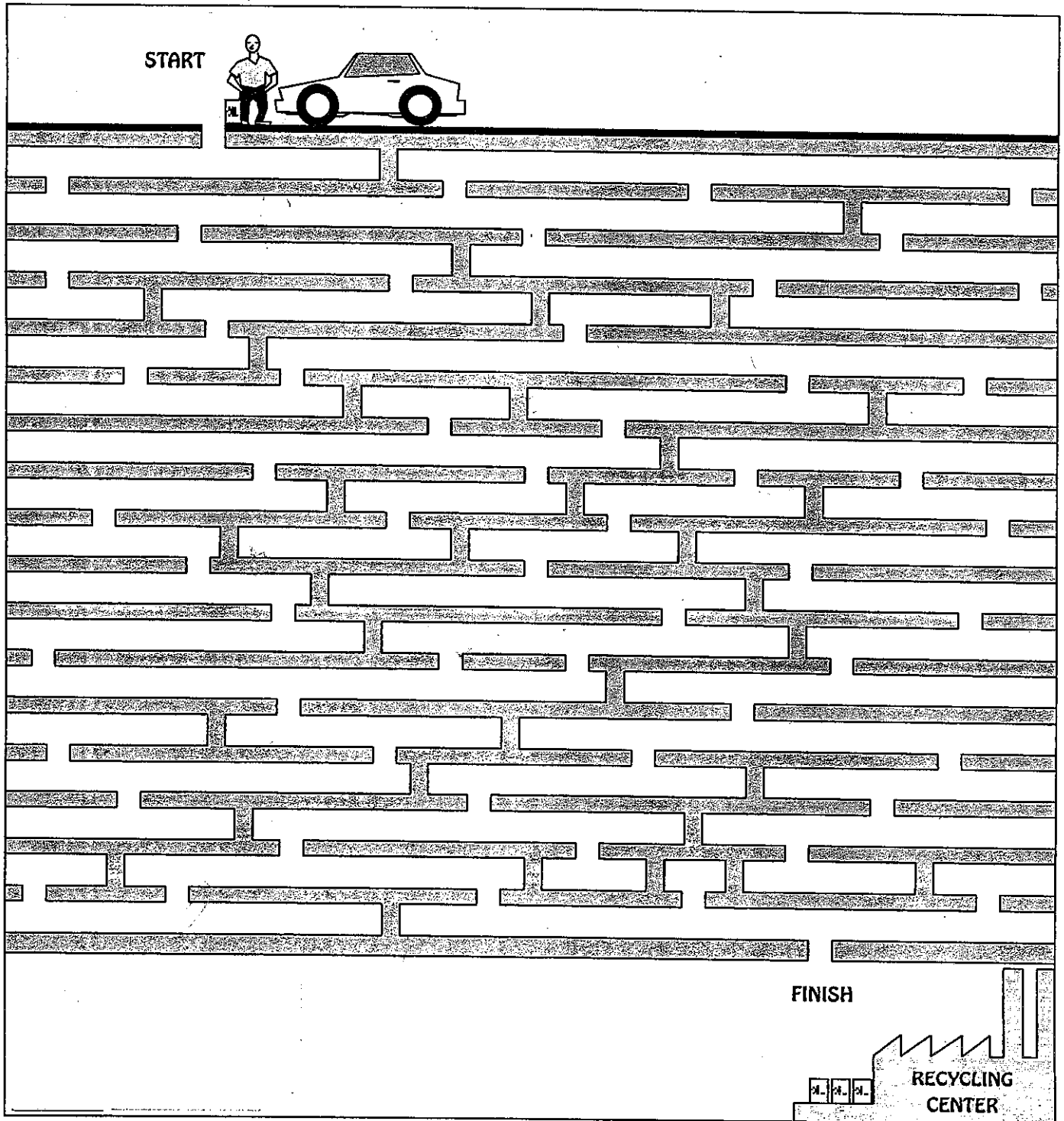
6. csra \_\_\_\_\_

7. samter \_\_\_\_\_

# Storm Drains: It's a Direct Connection

Storm drains are found along streets in your neighborhood. Large pipes under the city connect the storm drains to the closest stream or lake. Never dump oil or other waste down the storm drain. Take it to a recycling center instead.

Help get the used motor oil to the recycling center.



# Stormwater Pollutant Quiz

Match the pollutant with the problem. If you need help, look back in the book.

- |                    |   |
|--------------------|---|
| 1) Motor Oil       | A. Used to kill garden pests, but can also kill animals living in the water.                |
| 2) Hazardous Waste | B. Animals sometimes confuse this with food and can die from eating it.                     |
| 3) Fertilizers     | C. This can cloud the water and make it hard for animals to see, and can even smother eggs. |
| 4) Trash           | D. Leftover poisonous chemicals that can pollute lakes and streams.                         |
| 5) Dirt            | E. Good for cars, bad for birds and fish.   |
| 6) Pesticides      | F. Helps plants grow, but can pollute a stream and use up the oxygen.                       |

Now match the pollutant with something you can do to help protect your water.

- |                    |   |
|--------------------|---|
| 1) Motor Oil       | A. Only use as much as you need to get rid of harmful pests.                    |
| 2) Hazardous Waste | B. Don't litter, put this in its place. Better yet, recycle as much as you can! |
| 3) Fertilizers     | C. Cat litter can clean this up.  |
| 4) Trash           | D. Look for disposal days in your community to get rid of this.                 |
| 5) Dirt            | E. Always use the right amount on your lawn to keep it green.                   |
| 6) Pesticides      | F. Plant trees and other plants near streams to help hold the soil in place.    |