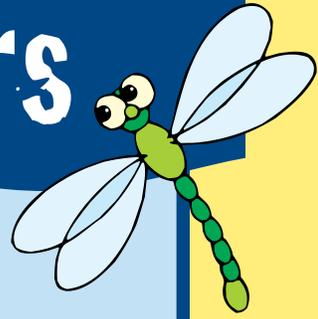


# Watershed Warriors



**Activity Booklet**  
PRIMARY TO GRADE 3  
**Jump In!**

**Inside Front Cover**  
**Blank Page**

# Meet Our Super Heroes!

Watershed warriors attend a special school called Watershed Academy. Students spend half their time in the classroom and the other half in the great outdoors. This activity book will provide great ideas for both environments!

## Brook Bass

**AGE:** 10 **GRADE:** 5

**SCHOOL:** Watershed Academy

**TEACHER:** Mr. Perch

**FAVOURITE SUBJECT:** Research & Math

**COOLEST CREATURE:** Water strider

**BEST FRIEND:** Ocean Falls (Rocky's OK...)

**SUPER POWERS:** Flying, supreme smelling

**FAVOURITE BOOKS:** Magic Tree House

**BEST COLLECTION:** My butterflies



## Hey Kids

### BE A WATERSHED WARRIOR!

Rummage through your dress-up clothes, search your bedroom, raid the toy box and create your own superhero costume.

### psst... teachers & parents

Help design a superhero mask using a paper plate. Make a name tag together listing all the superhero's cool powers & faves.



## Rocky Reed

**AGE:** 6 **GRADE:** 1

**SCHOOL:** Watershed Academy

**TEACHER:** Miss Willow

**FAVOURITE SUBJECT:** Underwater Exploration

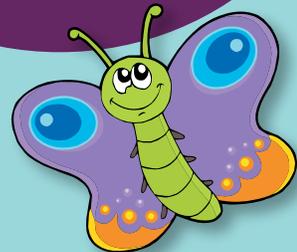
**COOLEST CREATURE:** Blue whale

**BEST FRIEND:** Brook (don't tell the guys!)

**SUPER POWERS:** Supersonic hearing, x-ray vision

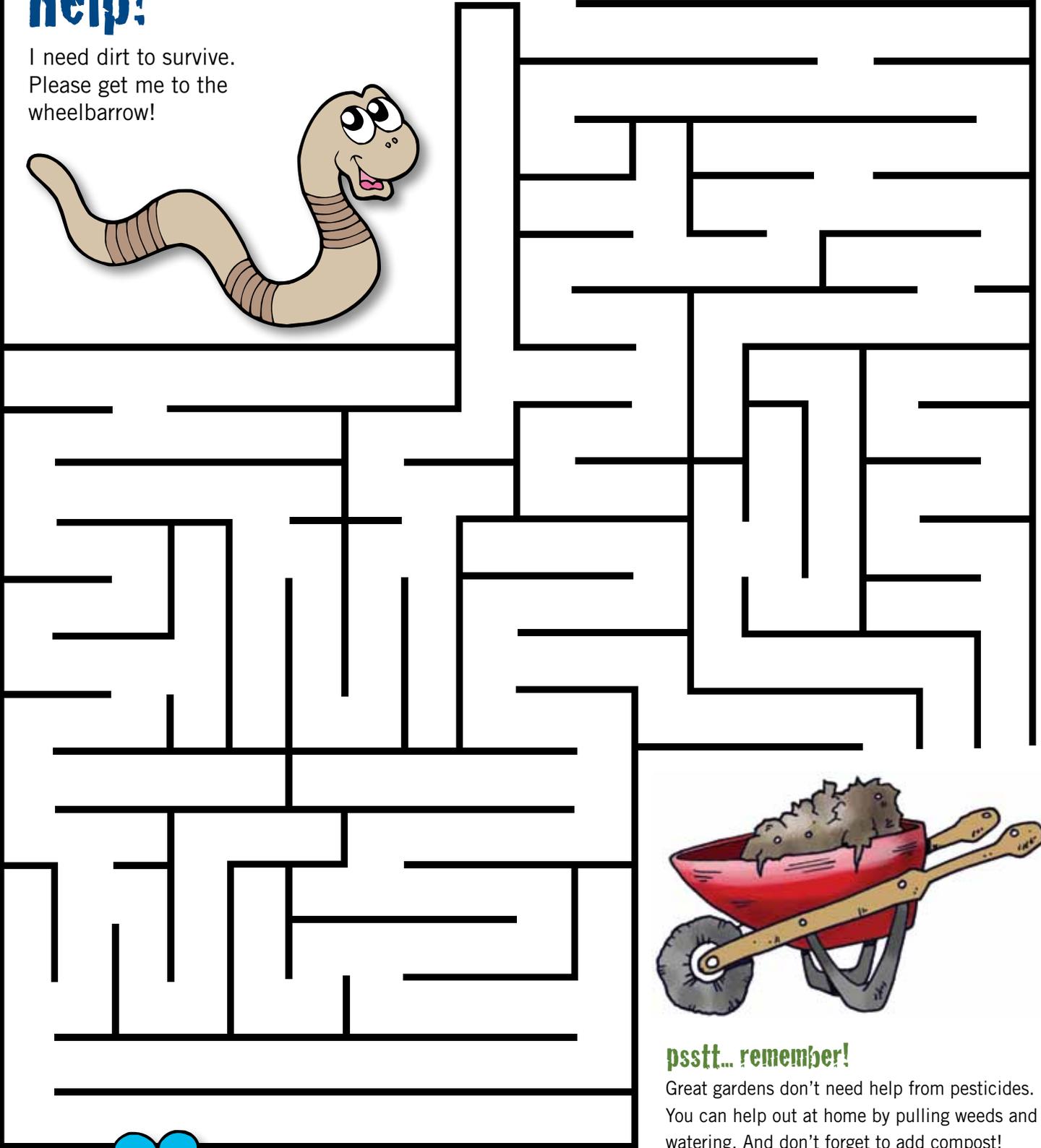
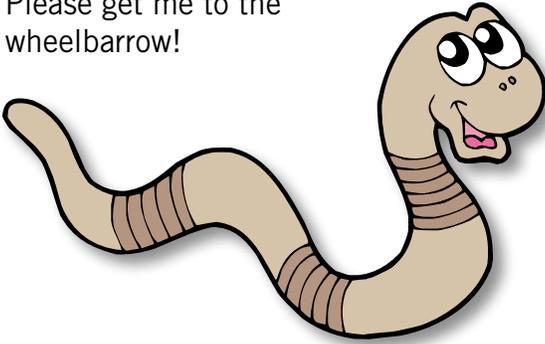
**FAVOURITE BOOKS:** Spiderman

**BEST COLLECTION:** My river rocks



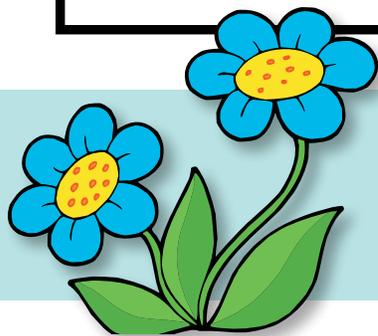
# Help!

I need dirt to survive.  
Please get me to the  
wheelbarrow!



## psst... remember!

Great gardens don't need help from pesticides.  
You can help out at home by pulling weeds and  
watering. And don't forget to add compost!



## What's compost and where does it come from?

Compost is a pile of rotting material that gardens love. You create compost by saving all of your kitchen scraps (like vegetable peels, egg shells, etc.) and dumping it into a pile or a special container to break down. Add some worms if you like. Eventually it becomes soil. Now that's science!



# What's a Watershed?

A watershed is an area of land that catches rain and snow and drains into a river, lake, marsh, stream or groundwater. Eventually the water reaches the ocean. You're sitting in a watershed right now. Homes, farms, forests, small towns, big cities and more all make up watersheds. They come in all shapes and sizes.

**THE LAHAVE WATERSHED.** You may live in this watershed. It covers an area of 1,700 square kilometres (that's about 4,250 soccer fields) and is located on Nova Scotia's South Shore. Bridgewater is the major town in the LaHave Watershed. It also contains parts of Lunenburg, Annapolis and Kings Counties. You may have heard of other watersheds like the Mushamush.

**DO YOU IMPACT YOUR WATERSHED?** Everything living in a watershed has an impact on it, sometimes good and sometimes bad. This includes plants, animals and people (from homeowners to companies).

## **WHAT HURTS OR THREATENS THE WATERSHED?**

Anything that hurts the water, land or air. This could be pesticides, litter, stinky air or building new homes and cutting down trees (taking away nature).

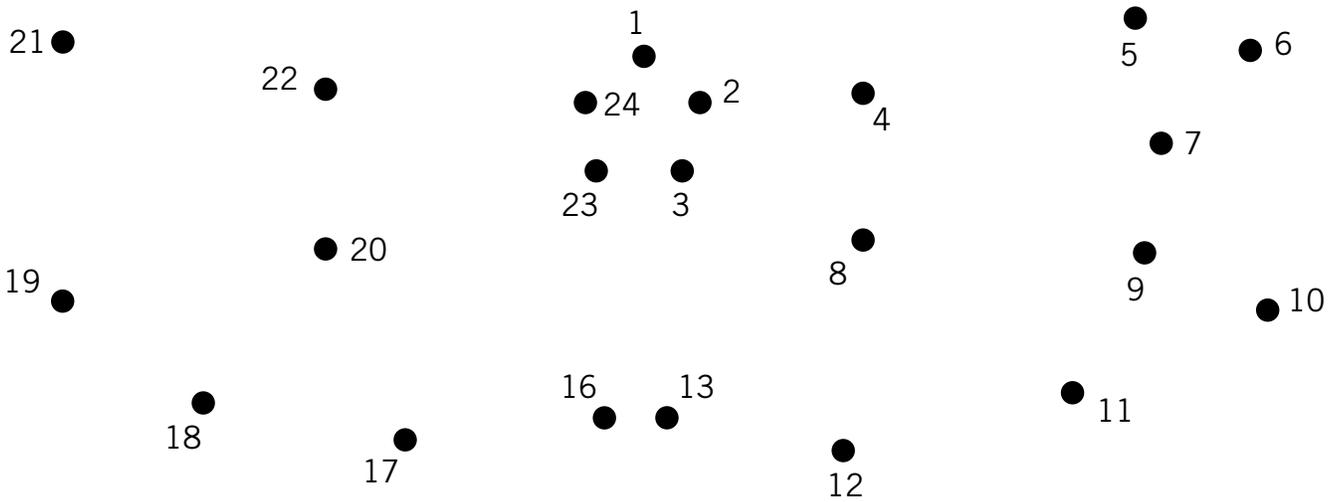
**WHAT IS GROUNDWATER?** Water that soaks beneath the ground. Most of the water that we drink is ground water (like the water that fills up your well or the town's wells).

**WHAT CAN YOU DO TO HELP?** Lots! We'll give you ideas galore in the activity booklet.



**Colouring fun!**

Brook's strength is amazing. She can toss rock boulders as easily as beach balls!



## Jokes hee hee!

**Why can't you play jokes on snakes?** Because you can never pull their legs.

**What do you get when you cross a cow and a duck?**  
Milk and quackers!

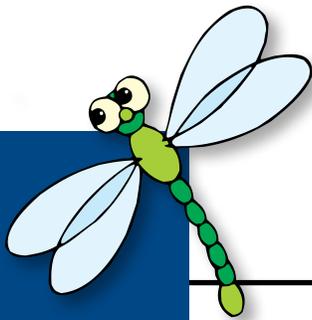
**Where do mermaids go to see movies?** The dive-in.

**What's in the middle of a jellyfish?** A jellybutton.

**What part of a fish weighs the most?** The scales.

**and finally....**

**What do you call a dragonfly at the North Pole?** Lost!



15 ● ● 14

**Connect the dots!**

## Wet Water Facts

**HOLY COW!** About 70% of the entire earth's surface is covered in water.

**NOW THAT'S OLD.** Glacier ice over 100,000 years-old is found at the base of many Canadian Arctic ice caps. Because of global warming (ask your teacher or parents what this is), Arctic ice caps are melting very fast. I think this calls for a field trip, don't you?

**SPOOKY...** In Canada, there is more water underground than on the surface. That means it's really important to keep our water clean. Remember that this type of water is called groundwater and we all drink it, every single day.

**SCARY.** You can survive about a month without food, but only 5 to 7 days without water.

**UNBELIEVABLE.** 1,000 kg of water is needed to grow 1 kg of potatoes. Those bags your mom buys, they weigh at least 5 kg. Do the math!

# Start Counting!

Help Rocky get to the treasure chest. Draw or colour the path through the maze. Start at 2 and count by 2's all the way up to 200. Come on, give it a try. Just skip every other number!

14	12	6	4					130	132
16	10	8	2				126	128	134
18	20	38	40				124	122	136
24	22	36	42	44	106	108	118	120	138
26	32	34	48	46	104	110	116	142	140
28	30	52	50	100	102	112	114	144	146
66	64	54	56	98	164	162	160	158	148
68	62	60	58	96	166	168	170	156	150
70	72	90	92	94	200	198	172	154	152
76	74	88	<p><b>yeah, treasure!</b></p> 			196	174	180	182
78	84	86				194	176	178	184
80	82					192	190	188	186

# Water Word Scramble

Put the letters in the right order to complete the sentence!

## The need for clean water.

All living things need \_\_\_\_\_ to live.  
t a w e r

When water evaporates, it travels into the air and becomes part of a  
\_\_\_\_\_.  
d l o c u

All water starts out good, but often it can be filled with bad things.  
Then the water is called \_\_\_\_\_.  
u l l p o t e d

If the water is polluted when it travels into the air, it can fall as  
\_\_\_\_\_.  
i c d a                      n i a r

Less than 1% of all the water on earth is \_\_\_\_\_ water.  
s e f r h

Never \_\_\_\_\_ especially near water.  
i t e r l t

## How to use less water.

You'll save water by taking a quick \_\_\_\_\_.  
h o w s e r

Turn off the \_\_\_\_\_ when brushing your teeth.  
p a t

Wash bikes and cars with a \_\_\_\_\_ and sponge  
instead of a running hose.  
k e c b u t

Fill your gardens with \_\_\_\_\_ that belong there and mulch.  
n p s t a l

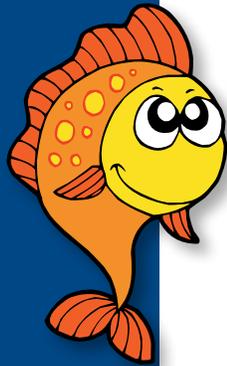
Ask your \_\_\_\_\_ to look for ways to save water.  
m f a i y l

## Things to Do

### Grab some popcorn!

Have a mini film festival in your family room. Only rule: every movie must have an environmental theme. Rent one a week and you've got the whole winter covered. Here's our Top 10 list:

1. Free Willy
2. Fly Away Home
3. Over the Hedge
4. Happy Feet
5. A Bug's Life
6. The Lion King
7. Finding Nemo
8. Rescuers Down Under
9. The Adventures of Milo & Otis
10. Ferngully: The Last Rain Forest

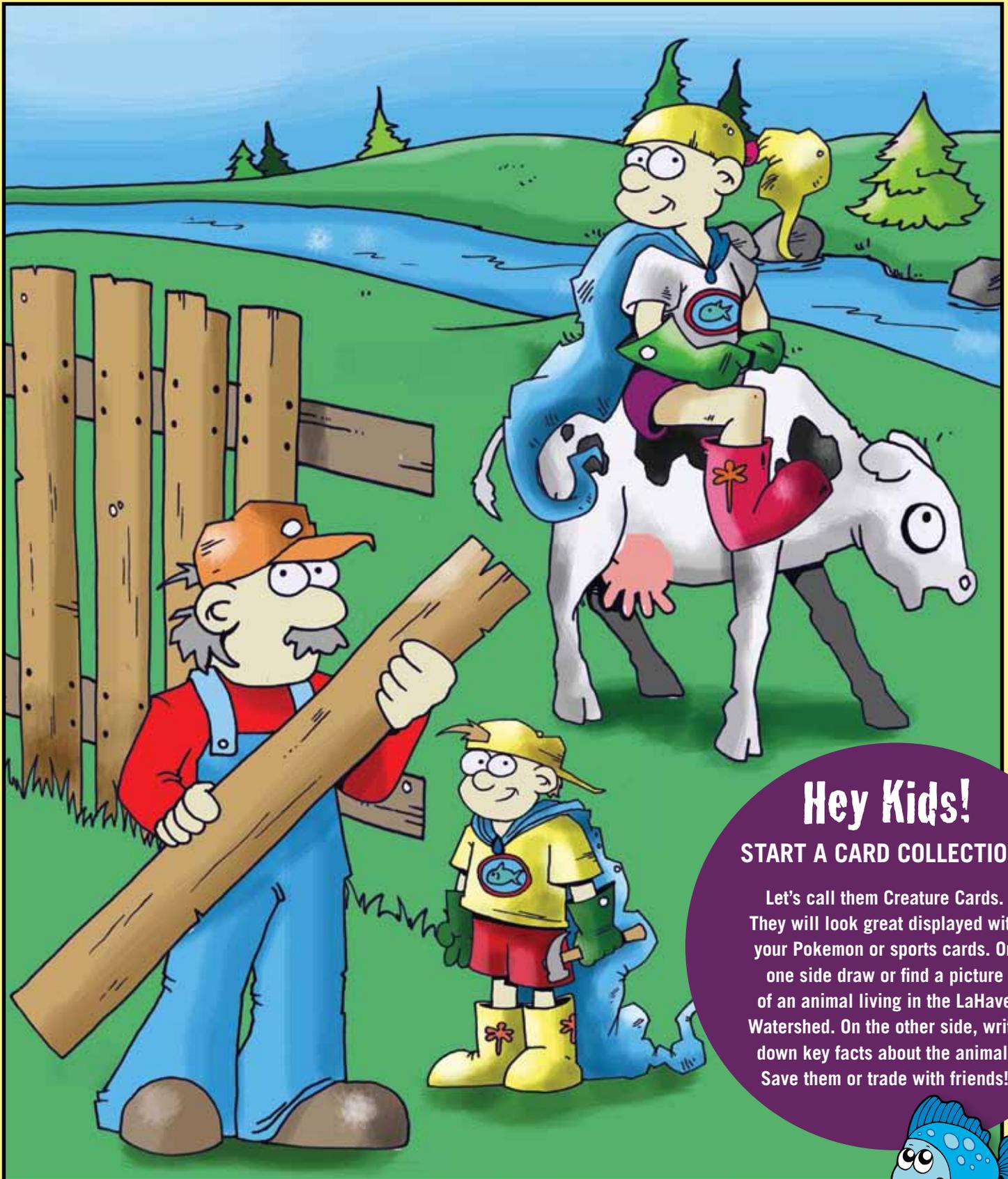


## Real world science.

**Something's in the air.** What's in the air you breathe? Coat several sheets of paper with a light petroleum jelly. Place each one in a different place. Put one on a pole near a busy street corner. Hang one near a factory. Place another in a tree in your backyard. Collect them after 2 days. Look at each sheet with a magnifying glass. Which has the most dirt and yucky stuff? Which is the cleanest? What does this prove about the area where they were placed?

# Holy Cow!

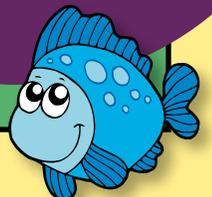
It's really important to keep cows and other farm animals away from streams, rivers and lakes. They trample down vegetation and go to the bathroom in the water. Yuck!



## Hey Kids!

### START A CARD COLLECTION

Let's call them Creature Cards. They will look great displayed with your Pokemon or sports cards. On one side draw or find a picture of an animal living in the LaHave Watershed. On the other side, write down key facts about the animal. Save them or trade with friends!



# Watershed Creatures

Many plants and animals live in the LaHave Watershed, and some of them are threatened or endangered. When an animal is endangered, it is close to being gone forever (you may never see one again, anywhere). The best way to help these animals is to protect the areas where they live. When we do this, everyone benefits, animals, plants and us. Figure out these clues and you'll discover some of the animals that live in the LaHave.

## Creature Clues: Figure it Out. Who am I?

- 1) I am a large rodent that builds houses out of wood. I have two HUGE front teeth! My tail is long and flat; like a pancake! I am Canada's national symbol. Who am I?
- 2) I am long and slimy! I look like a snake, but I live in the water. I can be up to 1 metre in length! As I get older, I get darker! Who am I?
- 3) I am a bird that is almost always in the water. My voice has no echo! I have bright orange webbed feet and a wide, flat bill. Who am I?
- 4) My skeleton is on the outside of my body. I have 10 legs and two of them are claws! Humans sometimes like to eat me. I usually live close to shore. Who am I?
- 5) I am born without legs, but grow them when I become an adult. I like to hop to move around. I can breathe underwater and in the air. I catch food with my long, sticky tongue! Who am I?
- 6) I carry my house on my back everywhere I go! When I don't move, I look like a rock. I can live to be up to 100 years old! Most people think I'm really slow, but I can move fast when I need to! Who am I?

1) \_\_\_\_\_ 4) \_\_\_\_\_

2) \_\_\_\_\_ 5) \_\_\_\_\_

3) \_\_\_\_\_ 6) \_\_\_\_\_

Turn to the next page for the answers!



## Focus On... Atlantic Salmon

**ATLANTIC SALMON.** Lots of fish are in trouble and the Atlantic salmon is one of them. They like cold water. In the fall, they swim from the ocean (saltwater) to freshwater lakes and rivers to lay their eggs. Anything that pollutes the water or blocks them from travelling affects their health and population numbers. Salmon like to eat lots of other little fish and crustaceans (sea animals like lobster that have a hard shell). When they make their long journey inland from the sea to lay their eggs (called spawning), they sometimes don't eat at all!

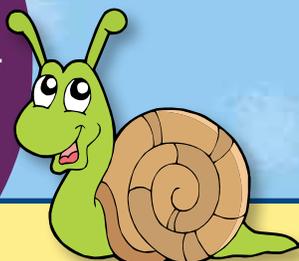


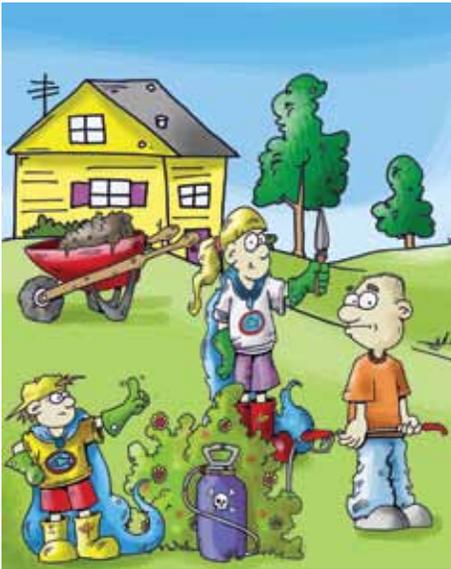
## Hey Kids!

### WHAT'S A DIGGER LOG?

Brook and Rocky are basically building a dam called a digger log. Made from logs of wood, these structures create pools of water for fish to hang out in and lay their eggs.

Digger logs are just one way we can help our rivers and streams become healthier waterbodies.





## Save the Watershed!

### Take action today.

1. Pack a litterless lunch. Who needs juice boxes? Use your own containers.
2. Encourage your mom to buy “green” cleaners. They work just as well as the other ones.
3. Walk or ride your bike anywhere you can.
4. Start a weed collection. Pull a few every day. It takes minutes and your parents will adore you.
5. Tell everyone you know to do all this stuff. We all need to play a role.

### Write a letter (or two)!

Let politicians (people who make big decisions) know why we need healthy watersheds. Ask them what steps they are taking to help.

# Get outside and get dirty.

There’s a lot of really cool stuff you can do to make your watershed a healthier place for you and other animals.

**TAKE THE GREAT LITTER CHALLENGE!** Do this with your class, a group of friends, or with your family (invite aunts, uncles and some cousins too!). Split into groups and see who can collect the most litter in a half hour. Have a reward for the winning team.

**ORGANIZE OR TAKE PART IN A TREE PLANTING PROJECT.** Contact local environmental groups and/or companies and ask if they have any projects in the works. Arbor Week occurs every spring across North America and in other countries (“arbor” is fancy word for tree). Another great idea is for your school to consider getting rid of some of the pavement in the school yard and changing it to a garden or more natural play area. Some organizations will help pay for the costs of projects like this.

**START A WILDLIFE REFUGE IN YOUR BACKYARD.** You can make a home for birds, butterflies and other animals to hide in. Drop by a local garden centre or do some research on the internet for what types of food and shelter various animals prefer. Make it a family project and add to it every year. Pretty soon you may have your own personal zoo!

**JUST HANG OUT. OUTSIDE!** What’s the best way to learn more about your watershed? By spending time in the great outdoors. Look, listen, smell and touch nature. Next time it’s pouring rain, grab your rain jacket and boots and examine where all that water goes.



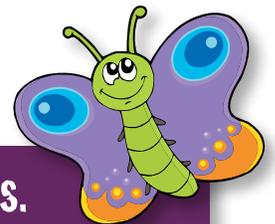
P	M	A	E	R	T	S	B	G	T
X	O	B	F	L	A	K	E	H	R
W	T	L	I	D	J	O	Q	T	E
P	A	X	L	L	L	E	W	L	A
I	N	T	T	U	G	V	P	U	T
P	F	O	E	Y	T	D	W	C	M
E	V	S	R	R	A	I	M	K	E
S	T	R	Z	B	N	P	O	Y	N
N	E	F	A	S	K	W	A	N	T



# Watershed Word Search

Find and circle these words:

- |        |           |           |
|--------|-----------|-----------|
| STREAM | WATER     | POLLUTION |
| FILTER | WELL      | LAKE      |
| PIPES  | TREATMENT |           |
| SAFE   | TANK      |           |



**The Last Word on Watersheds.**

Now you have the knowledge to be a watershed warrior. Save the LaHave by spreading the word. Tell everyone you know. Adios!

**Inside Back Cover**

**Blank Page**



## Acknowledgements

In developing this book, we used the following resources. All jokes are from the NIEHS Kids' Pages, <http://kids.niehs.nih.gov>. Water facts were provided by Environment Canada, [www.ec.gc.ca](http://www.ec.gc.ca). The first maze was adapted from the US Environmental Protection Agency's "Thirsten's Wacky Water Adventure" ([www.epa.gov/safewater](http://www.epa.gov/safewater)). Parts of the water word scramble are also from US EPA educational materials. The counting maze is from [www.printactivities.com](http://www.printactivities.com). The connect the dots worksheet is available at [www.dottodots.net](http://www.dottodots.net). Some of the suggested activities are from [www.kidsforsavingearth.org](http://www.kidsforsavingearth.org). Thanks to the talented Doug Vance who did all the original watershed warrior illustrations. New Paradigm Communications oversaw project management and booklet design.

