 *Clean Streams*
CLEAR CHOICES
A City of Salem Initiative

Special Issue

FREE

Be a
**CLEAN STREAMS
SUPERHERO!**



COLORING & ACTIVITY BOOK



Streams in the City of Salem

Q:

What's a **Watershed**?

A:

A **watershed** is an area that drains to a body of water, such as a stream.

In Salem, there are over 90 miles of streams!

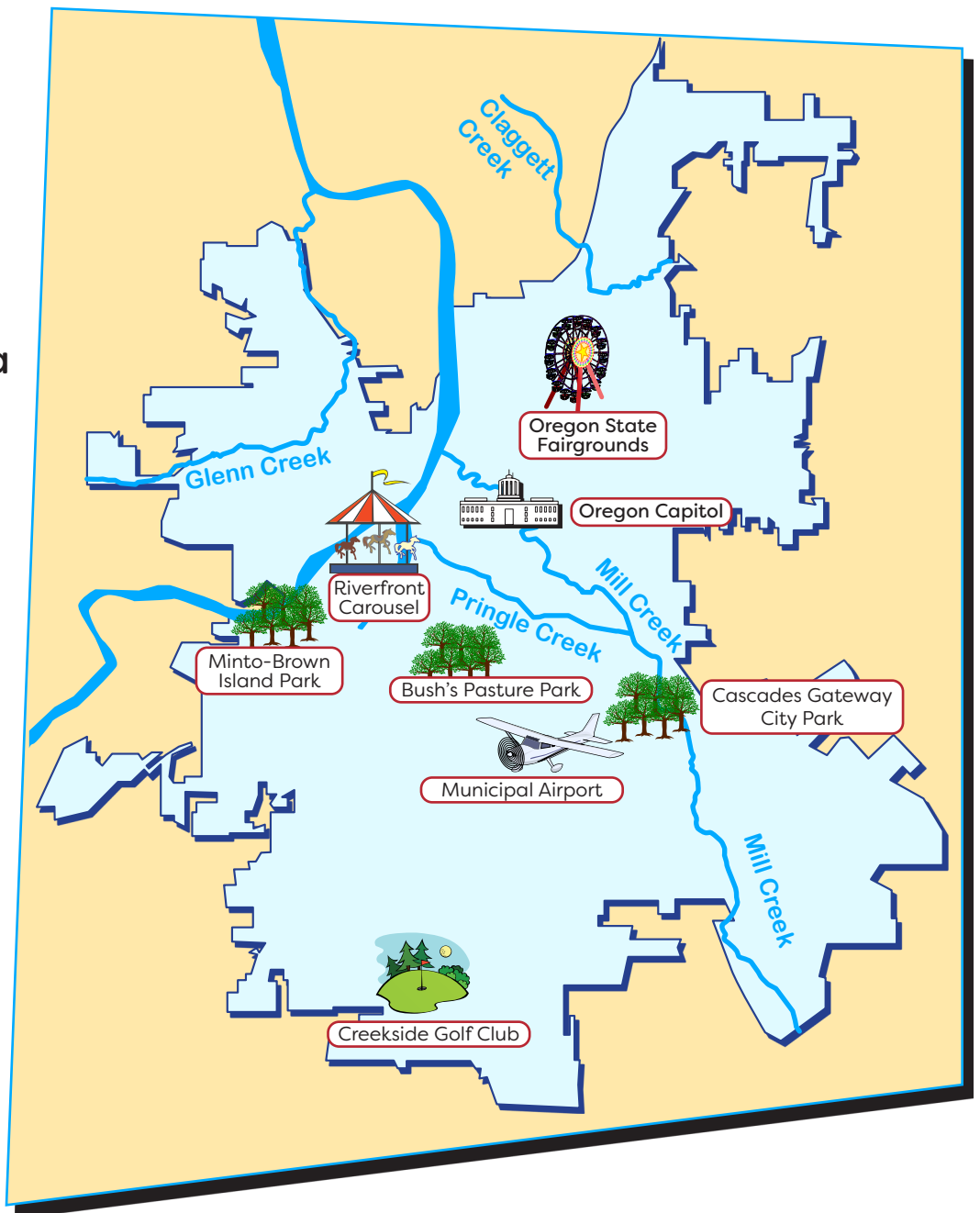
There are over 14,000 storm drains that drain into these streams.

All storm drains lead directly to streams and the water is not treated!

How clean a stream is depends on what we do in our watersheds.

This map shows the City of Salem.

Wherever you live in Salem, you are in a **Watershed**.

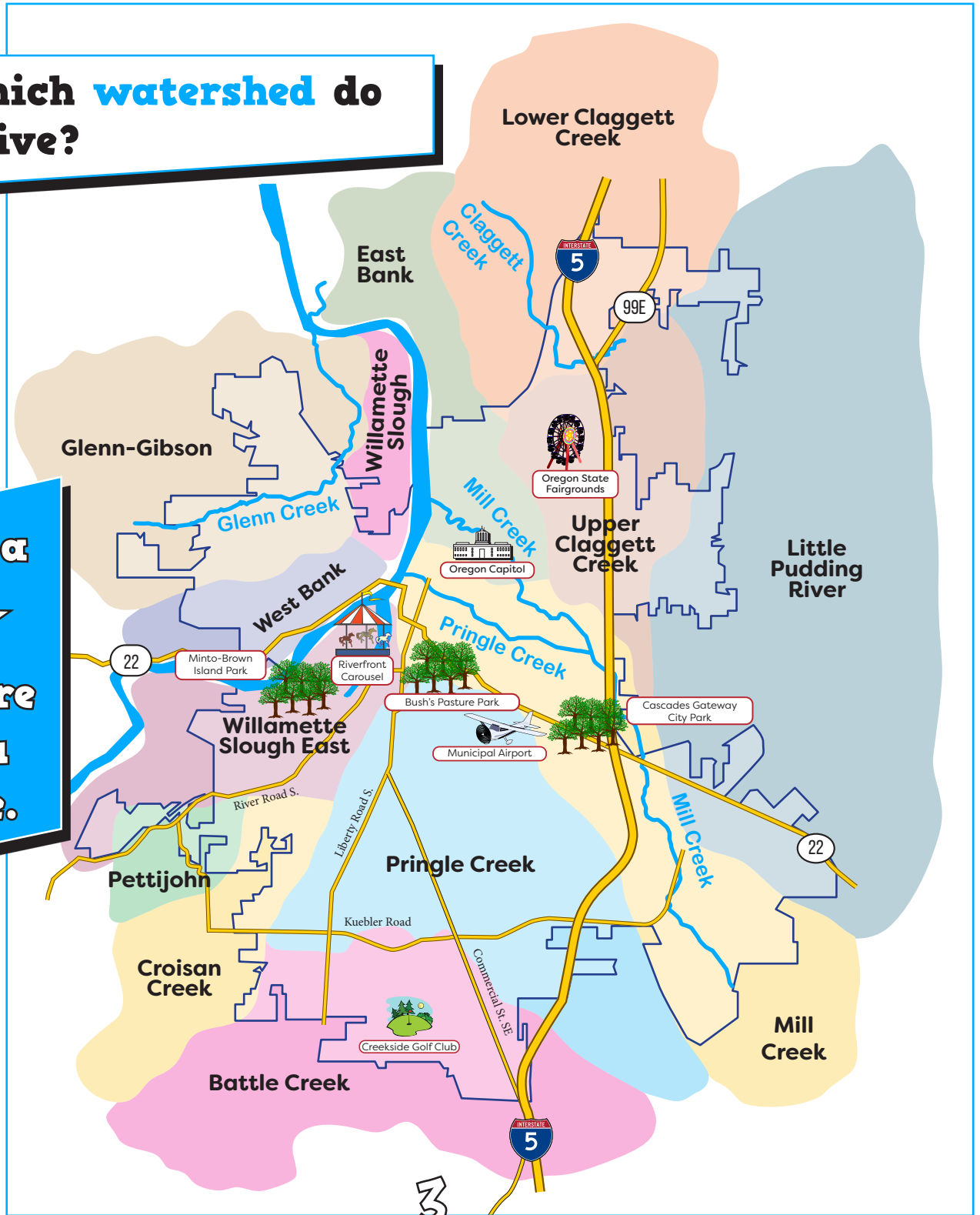


Salem's Watersheds

This map shows the 13 watersheds in Salem.

In which **watershed** do you live?

Put a
★
where
you
live.



Macroinvertebrates

Q:

What's a **macroinvertebrate**?

A:

A “**Water Bug!**”

Macro means big so you can see it without a microscope.

Invertebrate means it does not have a spine.

Lets identify some macroinvertebrates.

You will see some macroinvertebrates on the next page.

Read the descriptions below, then **CIRCLE** the macroinvertebrate on the next page in the correct **COLOR**.

Water Mite, Circle in RED.

- Looks like a spider.
- 8 legs
- Size of a tiny dot in the water.
- Somewhat Sensitive to pollution.

Dragonfly Nymph, Circle in ORANGE.

- Looks like a beetle.
- 2 tiny tails.
- Wings
- Somewhat Sensitive to pollution.

Fly Larva, Circle in GREEN.

- Looks like a worm.
- Has a head with eyes and funny looking hairs coming off of the mouth.
- Tolerant to pollution.

Aquatic Red Worm, Circle in YELLOW.

- Lots of land versions in the soil.
- Has no legs.
- Has no distinct features at the head or tail.
- Tolerant to pollution.

Stonefly, Circle in BLUE.

- 6 legs
- 2 tails
- Sensitive to pollution.

Mayfly, Circle in PURPLE.

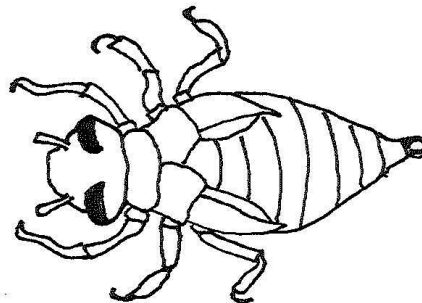
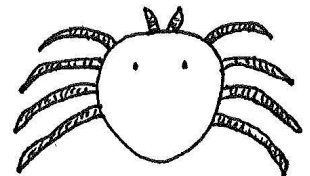
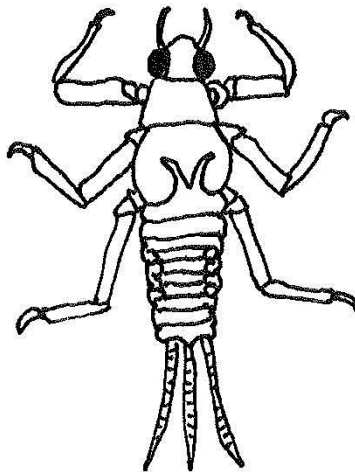
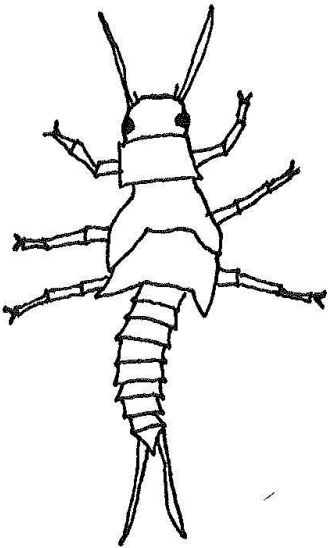
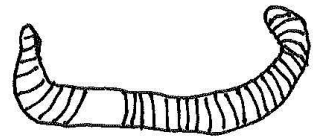
- 6 legs
- 3 tails
- Sensitive to pollution

Write the correct letter in the box by each macroinvertebrate to show their tolerance to pollution.

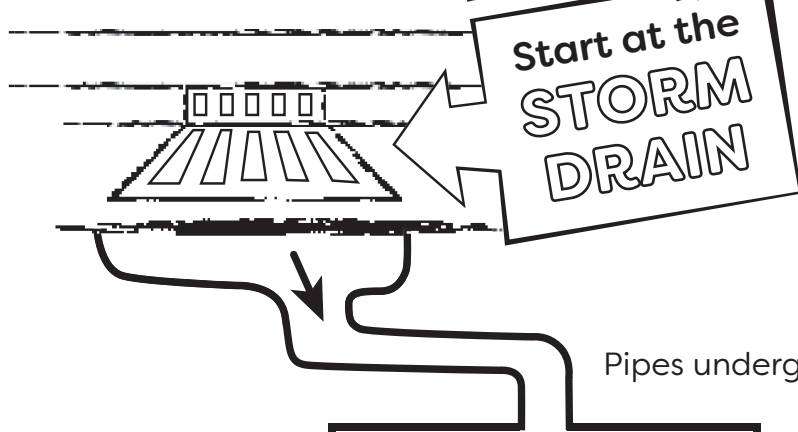
T = Tolerant

S = Sensitive

SS = Somewhat Sensitive

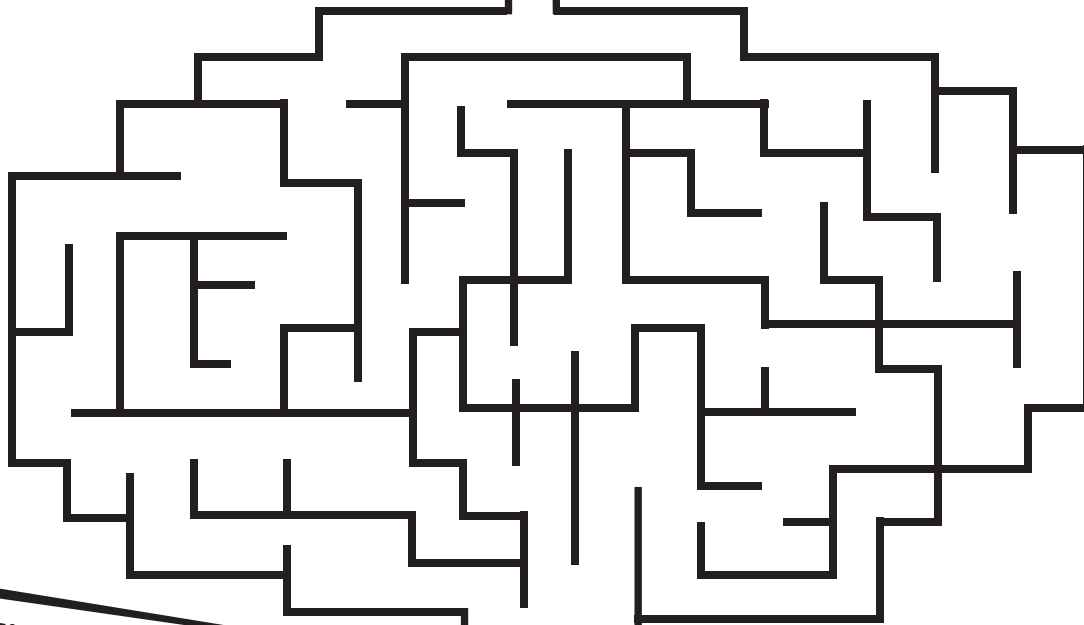


Where does the stormwater go?



Follow the path of stormwater after it enters a storm drain to see where it ends up.

Pipes underground carry water to the stream.



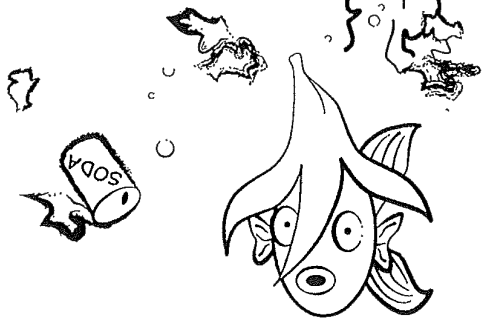
Anything that enters a storm drain flows into the stream.

Keep pollution out of the storm drains and streams.

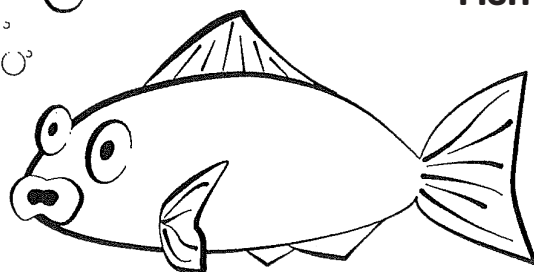


What other types of creatures live in streams? HINT: See page 4.

What types of plants live near streams?



FISH HABITAT



Clean Streams

Word Scramble

Unscramble the words to find the hidden messages.

ETRAMS

1. Fish and other _____ critters depend on clean water.

OPPO

2. Dog _____ adds E.coli bacteria to streams.

YAMFIL

3. You and your _____ can help protect fish and their homes.

TROMS NAIRDS

4. Picking up litter helps fish by keeping pollution out of _____ and streams.

ATTABIH

5. An animal's home is called a _____.

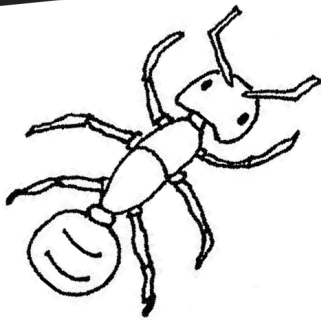
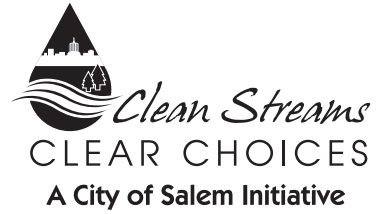
1. stream 2. poop 3. family 4. storm drains 5. habitat

Answers:

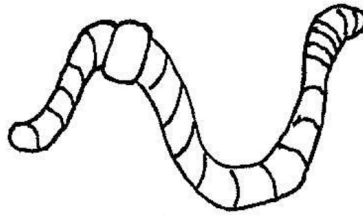
Crawly Critter Bingo

These crawly critters that live on land rely on clean water too. Head outside and see if you can find these critters.

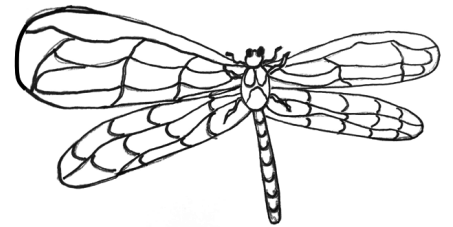
Get 3 in a row and you get a BINGO!!



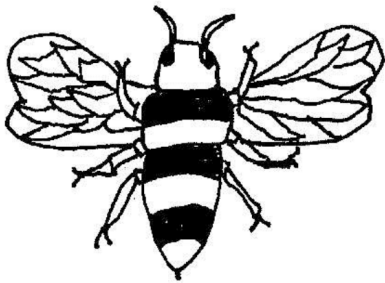
Ant



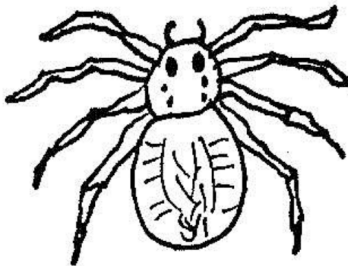
Worm



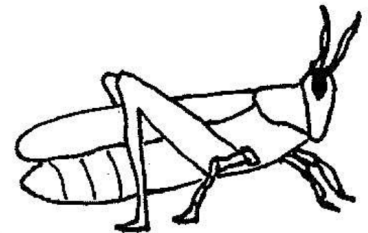
Dragonfly



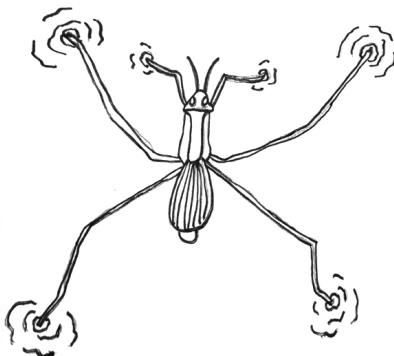
Bee



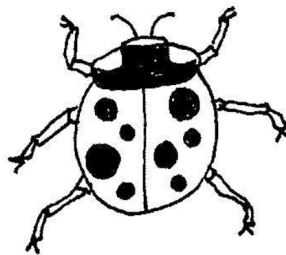
Spider



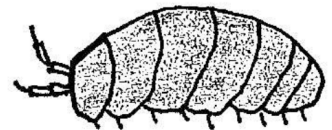
Grasshopper



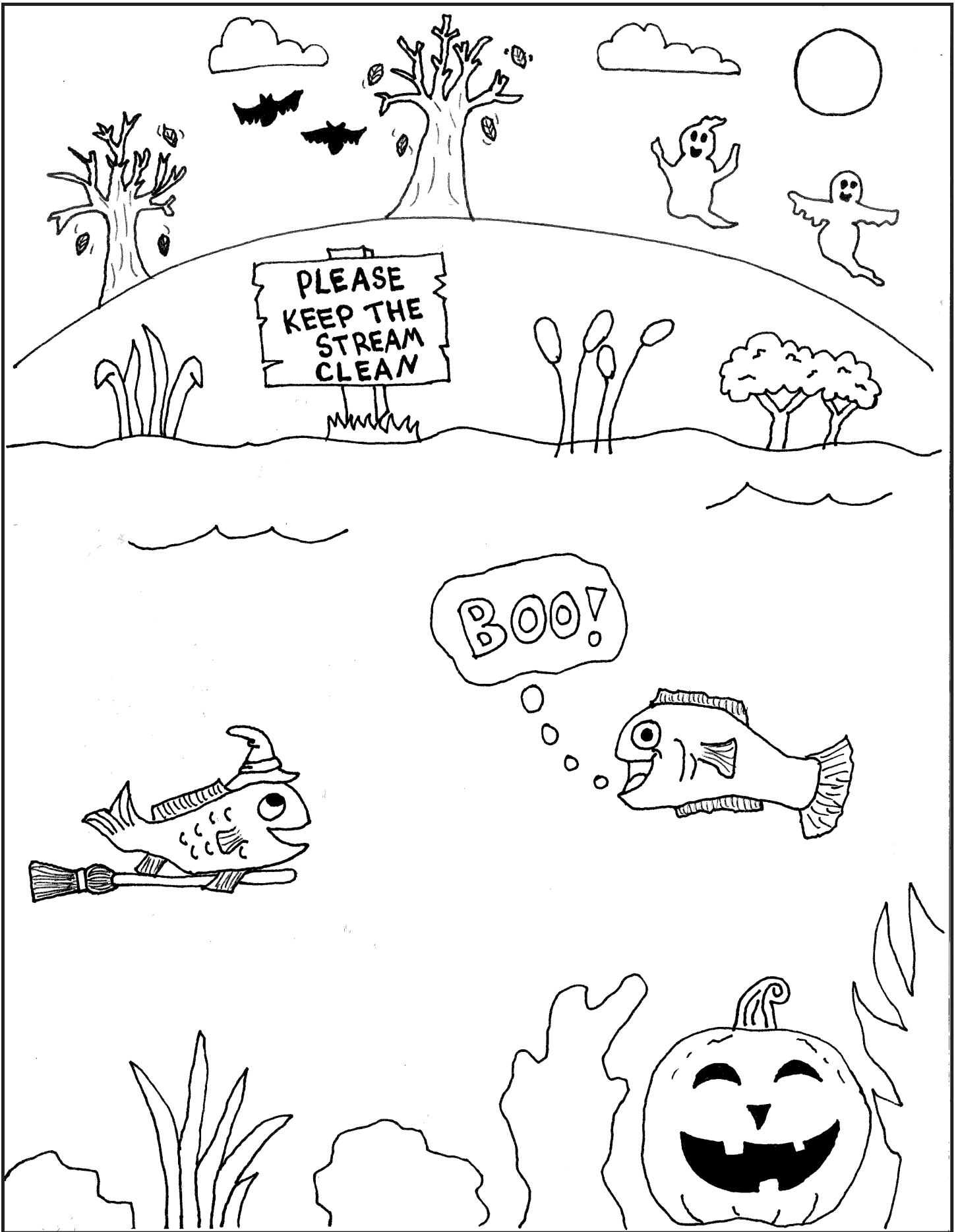
Water Strider



Lady Bug



Pill Bug



Trees Help Streams!

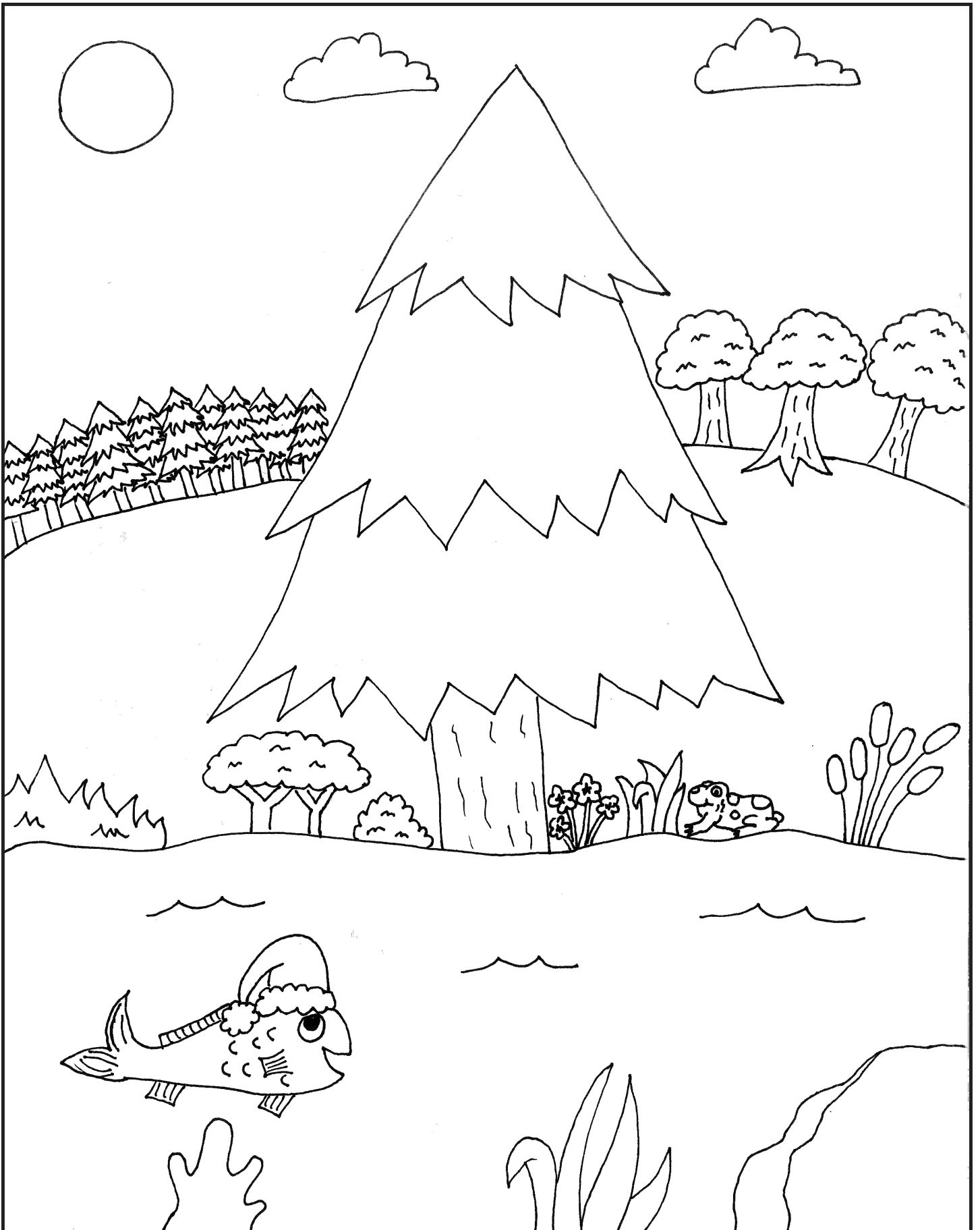
Trees are great to decorate for the holidays, but did you know that they are important for streams and fish too?



Here are some benefits of trees:

- ▲ **Trees** provide shade. This helps keep the water nice and cool for fish.
- ▲ **Trees** help to hold the soil in place so it doesn't run into the water when it rains.
- ▲ **Trees** soak up water from the ground.
- ▲ **Trees** help to filter out pollution before it reaches the stream.

On the next page,
decorate this fish's holiday tree.



Stream Crossword Puzzle

Words

Stormwater

Pesticides

Trash

Ecoli

Pipes

Street

Macros

Watershed

Treatment

Pollution

Clues

Across

4. Chemicals put on lawns and gardens to kill unwanted bugs.
5. This bacteria comes from pet waste.
6. The abbreviated name for bugs that live in streams.
7. Items found on the ground that don't belong there; another word for garbage.
9. An area of land that drains to a common body of water.
10. Stormwater picks this up and carries it to streams where it can harm wildlife.

Down

1. Water that flows along the ground and into storm drains when it rains.
2. Stormwater often does not receive this before flowing to streams.
3. Stormwater flows underground through these on its way to local streams.
8. Stormwater flows along this surface on its way to a storm drain.

1. Stormwater 2. Treatment 3. Pipes 4. Pesticides 5. Ecoli 6. Macros 7. Trash 8. Street 9. Watershed 10. Pollution

Answers:

What Doesn't Belong?

Circle the 10 items that don't belong in or near the stream. Then color the picture.



Pollutants Found at Home

Pollutants can be found at home. Stormwater flows into a storm drain and then directly into local streams.

Can you find these pollutants on the next page?

Circle each pollutant on the coloring sheet, then color the picture.

Dog Poop (E. coli)

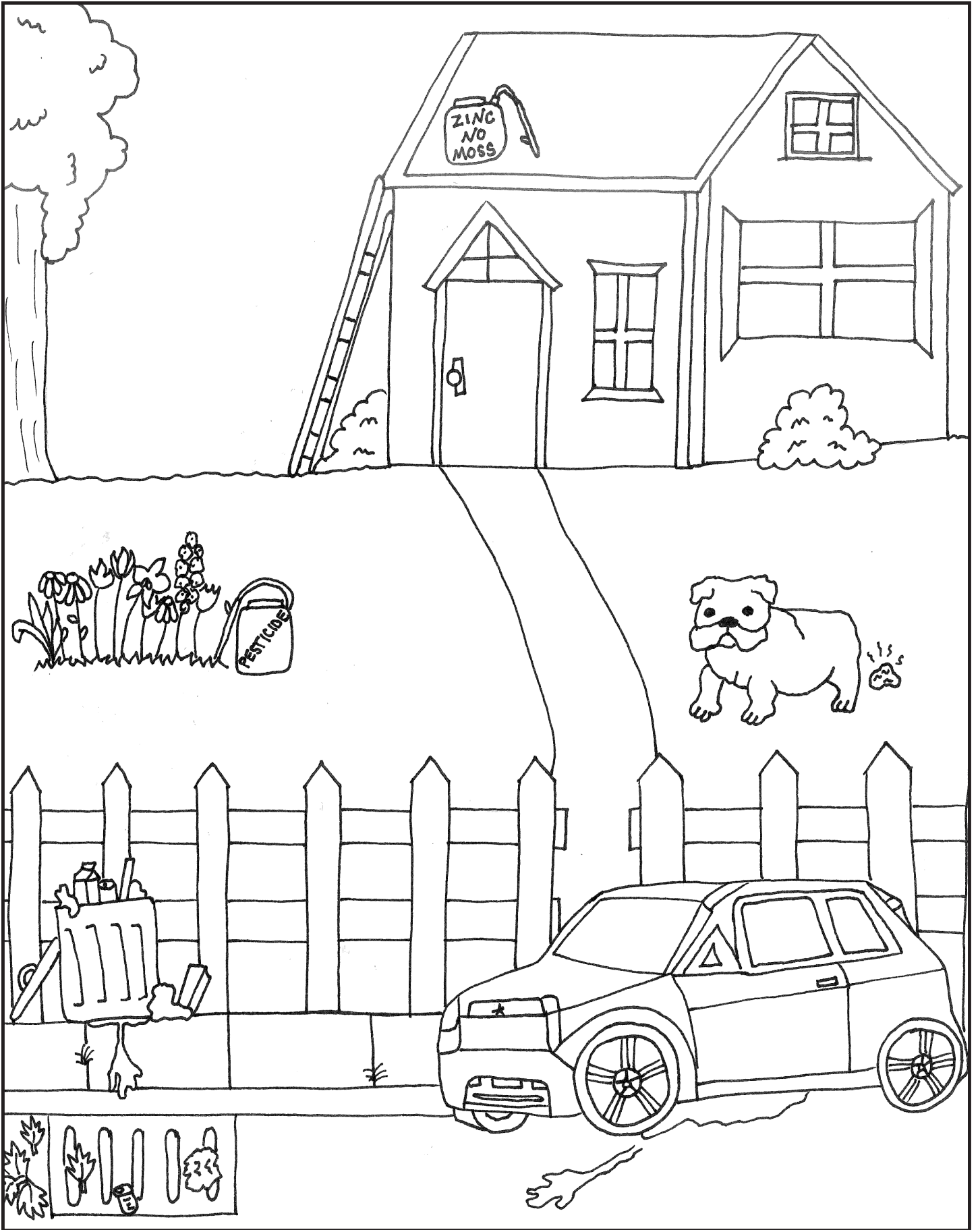
Trash

Zinc

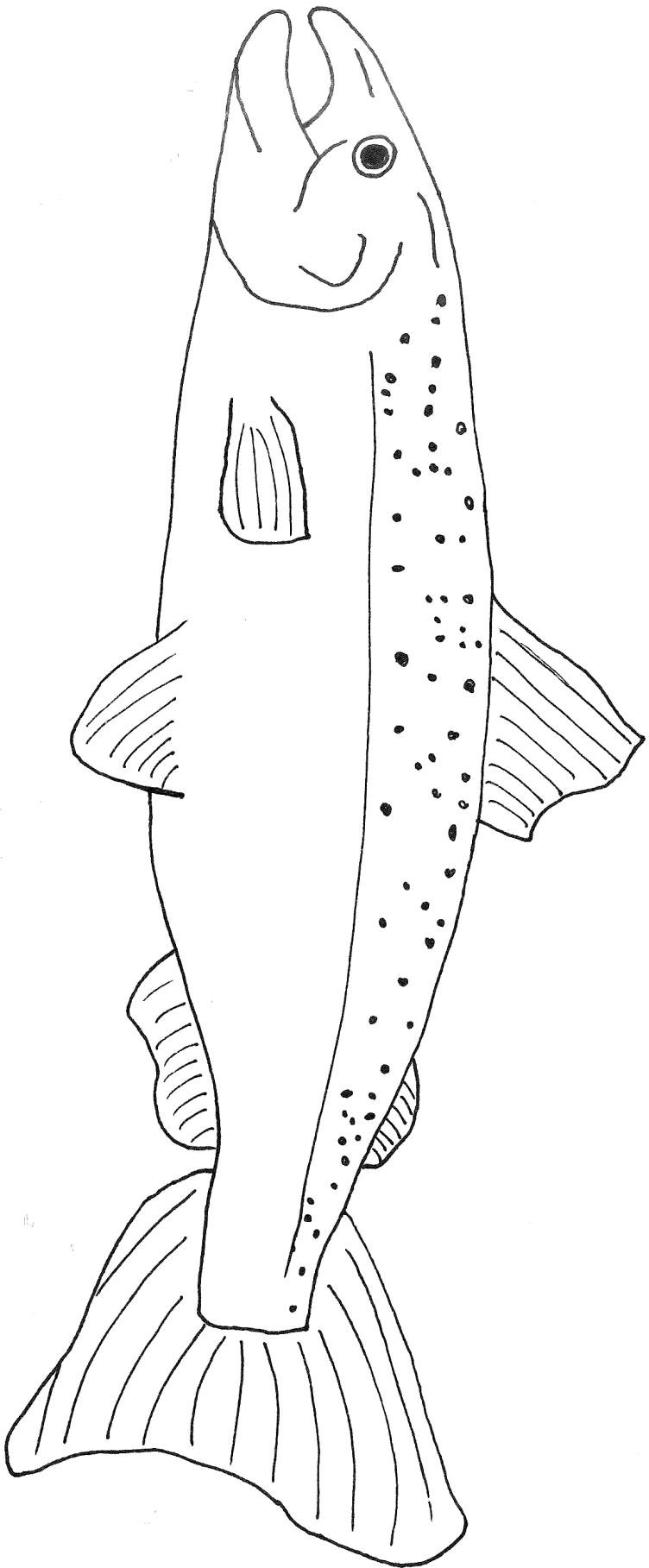
Oil

Pesticides

Leaves (Nutrients)

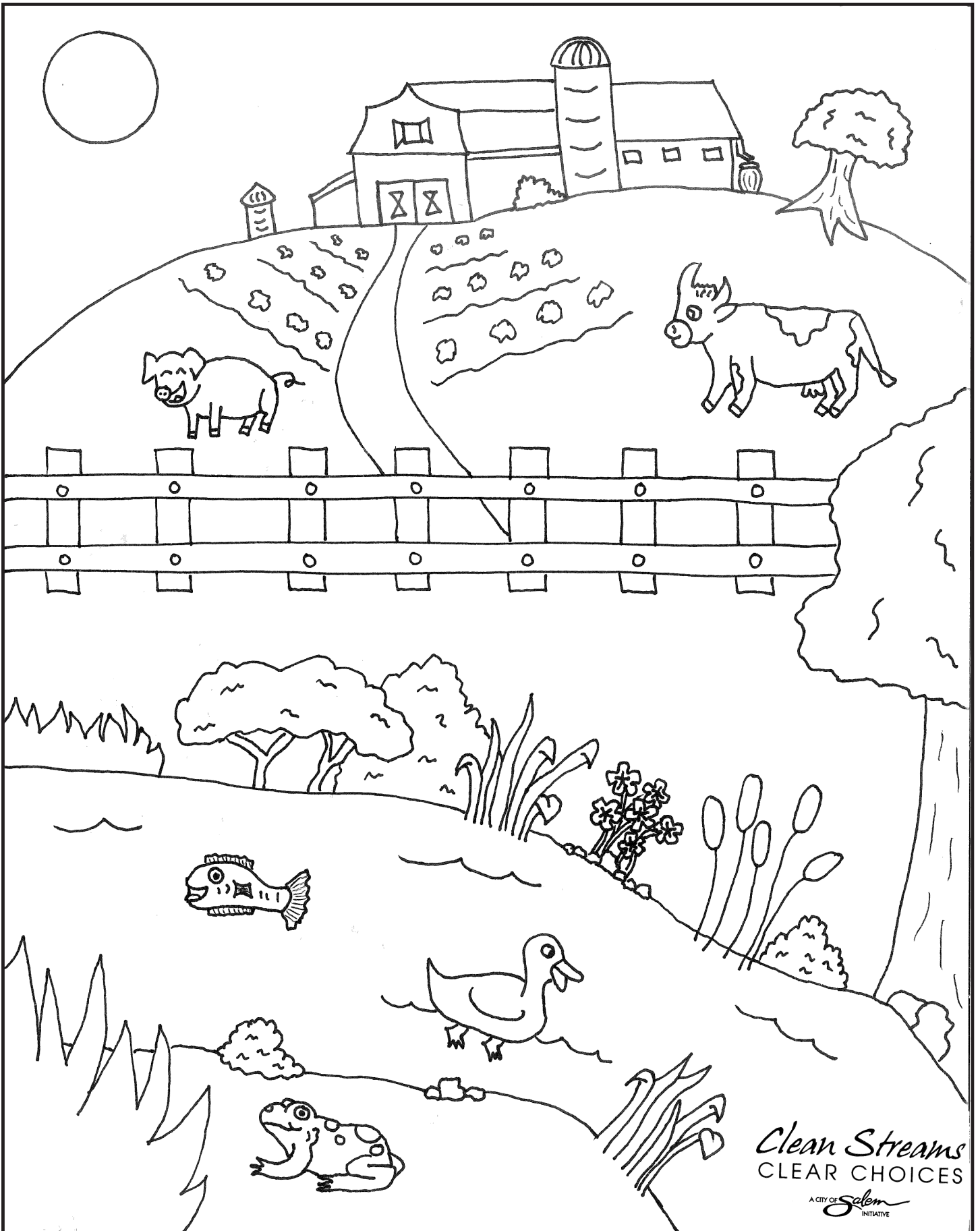


Color the Salmon
and give it a name!



My name is: _____ I like to eat: _____

(What do salmon eat?) Hint: See page 4



Fill in the list below, then add the words to the story on the next page.

1. Place

2. Animal

3. Animal

4. Action Verb
(past tense)

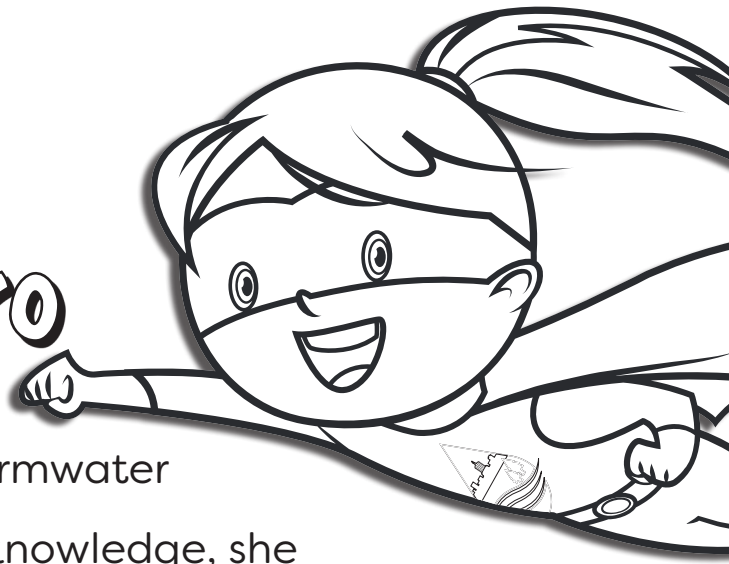
5. Action Verb
(past tense)

6. Waterbody

7. Exclamation

8. Feeling

Sara the Clean Streams Superhero



Sara had just learned all about stormwater pollution at school. Filled with her new knowledge, she set out to walk to _____. On her walk home she passed Mr. Thomas walking his _____. She noticed that his _____ was going to the bathroom. When his pet finished, Mr. Thomas _____ away.

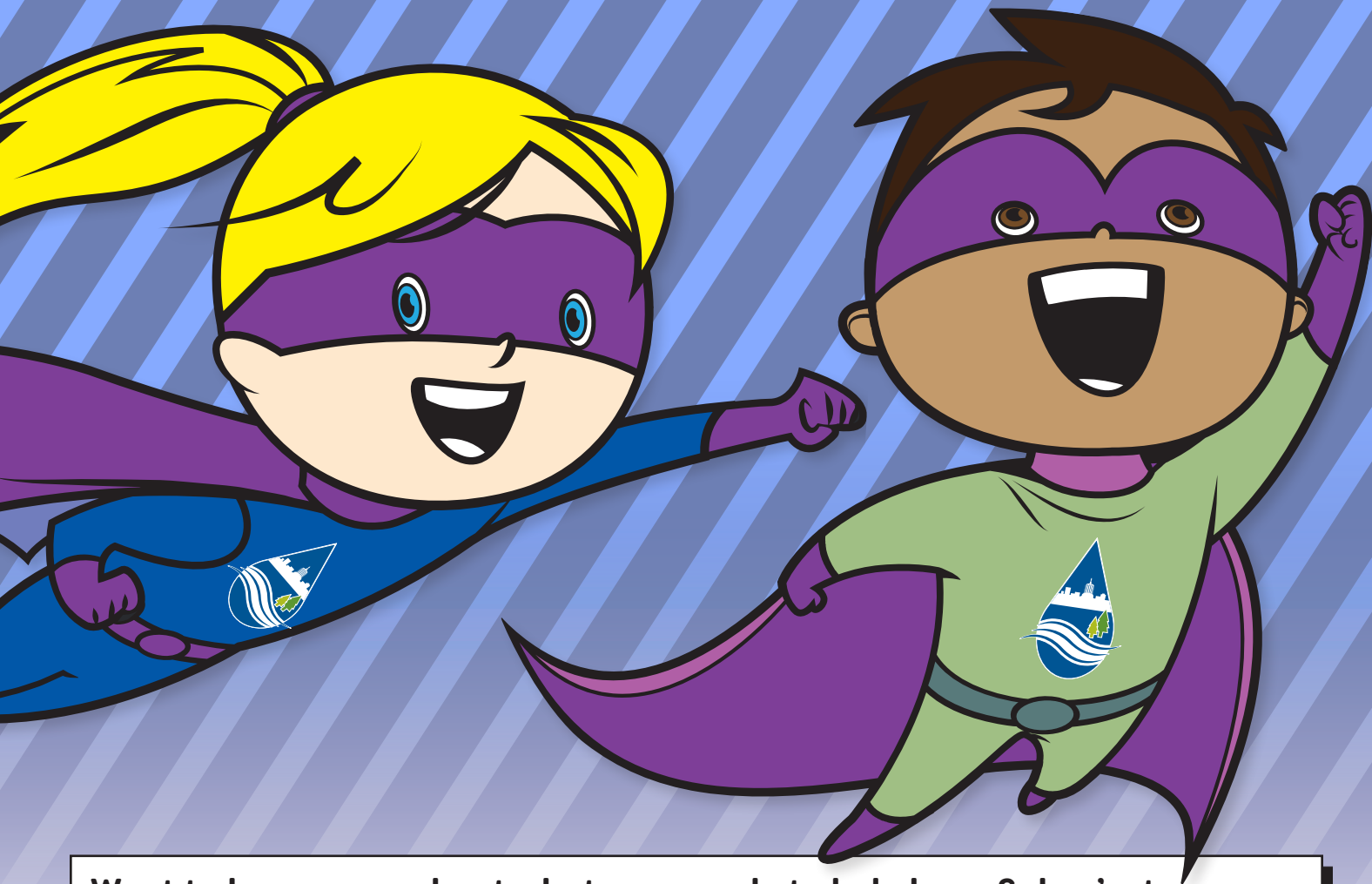
1. Place
2. Animal
3. Animal
4. Action Verb

“Mr. Thomas!” Sara shouted as she _____ towards him. “Hello Sara.” Mr. Thomas said. “Mr. Thomas, you didn’t pick up after your pet! Don’t you know that pet waste leads to E. coli bacteria in our _____ and can make fish sick?” Sara said waving to the pet waste still sitting on the ground. “_____! I had no idea. Thank you Sara, I will pick it up right away.” Mr. Thomas said, heading to pick up the pet waste. Sara continued on her way home.

5. Action Verb
6. Waterbody
7. Exclamation

Sara headed into her house, feeling very _____ for helping to keep pollution out of stormwater and local streams. Sara was a Clean Streams Superhero! You can be a Clean Streams Superhero too! Help your friends and neighbors understand how pollutants get into our stormwater and local streams.

8. Feeling



Want to learn more about what you can do to help keep Salem's streams clean and healthy?

Visit our website:

www.CleanStreamsSalem.org to:

- Join the Capital Canine Club.
- Volunteer to mark storm drains in your neighborhood. (Summer program only.)
- Take the W.E. Pledge.
- Volunteer to plant trees. (November - April program)
- Find information on stream friendly landscaping and car care.

Report illegal dumping to dispatch at 503-588-6311.

AND MORE!!!


Your family can follow us on Facebook at **[Facebook.com/CityOfSalemOR](https://www.facebook.com/CityOfSalemOR)**

Contact the Clean Streams Team at stormwateroutreach@cityofsalem.net

503-588-6211

1457 23rd Street SE, Salem, OR 97302

CITY OF *Salem*
AT YOUR SERVICE


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