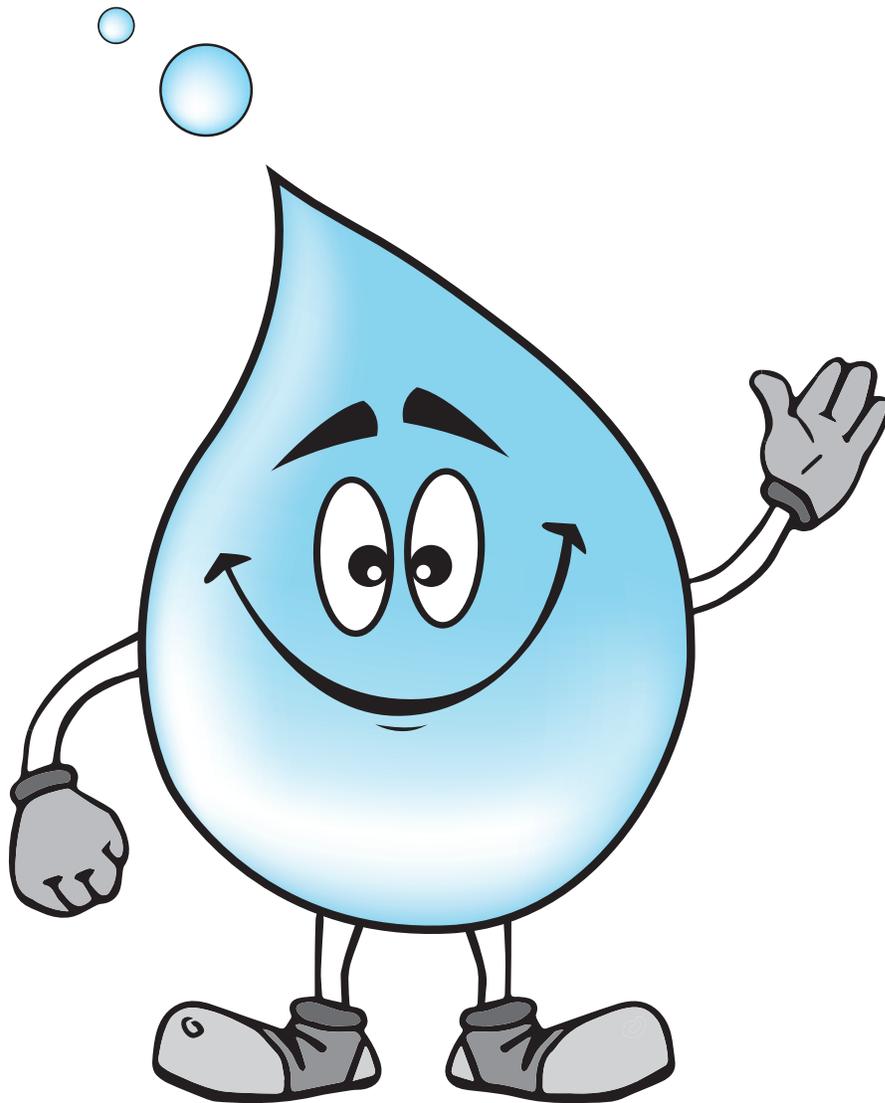


SALT LAKE COUNTY  
WATER QUALITY

Classroom Activity Book



**We All Live Downstream**  
[stormwatercoalition.org](http://stormwatercoalition.org)



Salt Lake County  
Water Quality

# Classroom Activity Book

An Activity Guide for  
Water Quality Education and  
Awareness

Revised May 2018

Funded by  
The Salt Lake County Stormwater Coalition  
By Kimberly Bell & Diane Barrett  
Revision: Social Marketing Consultants



## WHAT IS STORM WATER?

Storm Water is water from rain, snow, sleet, hail and snow melt.

As storm water runoff washes over streets, yards, etc. it can carry pollutants with it. **STORM WATER IS NOT TREATED.**

## WHERE DOES STORM WATER GO?

When water and anything it picks up in it's path goes down the storm drain, it is collected and ends up in canals, creeks, rivers and lakes. Some of the local water ways that your storm drain may end up are:

Bell Canyon

Midas Creek

Big Willow

Little Cottonwood

Bingham

Jordan River

Dry Creek

Great Salt Lake

Mill Creek

# STORM WATER POLLUTANT QUIZ

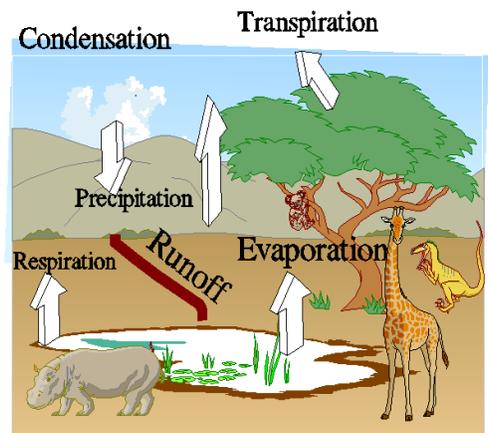
Match the pollutant with something you can do to help protect the water.

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.

# THE INCREDIBLE JOURNEY THROUGH THE WATER CYCLE

Water is constantly evaporating, changing from a liquid to a gas. As a vapor, it can travel through the atmosphere over Earth's surface. In fact, water vapor surrounds us all the time. Where it condenses and returns to Earth depends upon loss of heat energy, gravity, and the structure of Earth's surface.

Let's take a little time to answer some questions on the water cycle.



## The Water Cycle

Fill in the blanks with one of these four processes:

**Evaporation      Transpiration      Condensation      Respiration**

1. Water \_\_\_\_\_ can be seen as dew on plants or water droplets on the outside of a glass of cold water. In clouds, water molecules collect on tiny dust particles. Eventually, the water droplets become too heavy and gravity pulls the water to Earth.

2. When heat energy is added to water it is called \_\_\_\_\_.

3. The greatest movers of water among living organisms are plants. The roots of the plants absorb water. Some of this water is used within the body of the plant, but most of it travels up through the plant to the leaf surface. When water reaches the leaves, it is exposed to the air and the sun's energy and is easily evaporated. This process is called \_\_\_\_\_.

4. Living organisms also help move water. Humans and other animals carry water within their bodies, transporting it from one location to another. Water is either directly consumed by animals or is removed from foods during digestion. Water is excreted as a liquid or leaves as a gas, usually through \_\_\_\_\_.



# LIVING IN A WATERSHED?

A watershed is an area of land that drains water into a particular stream or lake. Watersheds can be small (like the area that drains to a small mountain stream) or huge (such as the area that drains to the Colorado River).

## WE ALL LIVE IN A WATERSHED.

Lots of things are found in watersheds: forests and grazing lands, cities and farms, reservoirs and ski areas. Many of these land uses and activities can affect the water that drains the watershed.

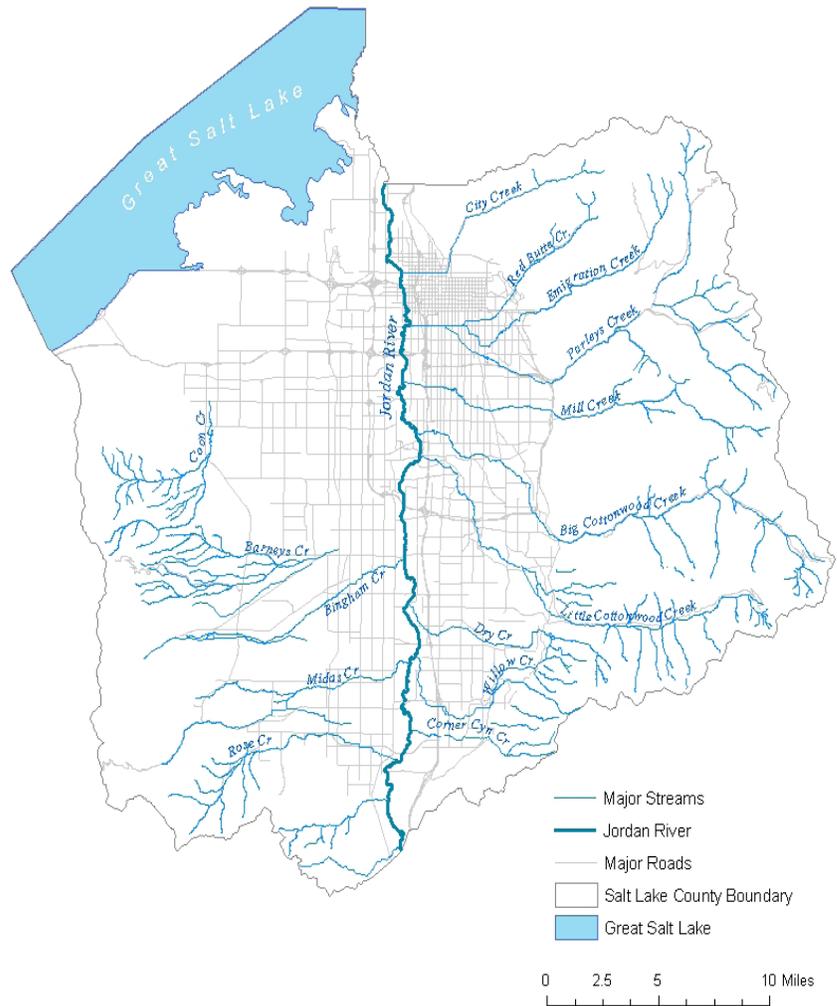
Pollutants that enter the water can harm fish and other critters that call it home. Pollutants can also make the water less useful to humans because we need clean water for drinking, swimming, and for irrigating our crops.

## WHAT CAN YOU DO TO HELP PROTECT OUR WATERSHED?

- Don't take dogs into the watershed
- No swimming or camping in the protected watershed unless otherwise posted
- Pack out what you pack in, don't leave your trash... "Leave No Trace"

### Jordan River Sub-Basin Watershed

Information Provided by the Utah Automated Geographic Reference Center (AGRC)



# TREAD LIGHTLY

To reduce the damage along stream banks you should always cross streams where?

(erehw eht liart ro daor sessorc  
eht maerts)



ATV's dirt bikes, mountain bikes, and your feet should always stay on the \_\_\_\_\_.

(liart)



You should always camp 200 feet away from \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

(sekal, srevir, sdnaltew)



Key: words written backwards



**“What you see in the watershed today, you may drink tomorrow.”**

Did you know...

- With millions of visitors to our beautiful mountains and canyons, human activity can have far reaching impacts to our drinking water quality.
- It can take less than 24 hours for the water you see in the stream to reach your drinking water faucets in the valley.
- You can make a difference by carrying out your trash so the water is not polluted.
- You can make a difference by following the rules posted on the “Keep It Pure” signs throughout the various protected watershed areas.
- 60% of our drinking water comes from the protected watershed canyons in your area.

# FIND THE 3 R'S OF RECYCLING

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





# PICK AND CHOOSE

COMPLETE EACH SENTENCE BY DRAWING A CIRCLE AROUND THE CORRECT ANSWER.



- 1) WHEN BACKFLOW OCCURS, WATER FLOWS
  - A) 12 INCHES ABOVE A SPRINKLER HEAD
  - B) UP A HILL
  - C) IN THE OPPOSITE DIRECTION
  - D) ON THE LAWN
  
- 2) A POSSIBLE HEALTH HAZARD FROM BACKFLOW COULD BE
  - A) ANIMAL WASTE IN WATER
  - B) FERTILIZERS IN WATER
  - C) PESTICIDES IN WATER
  - D) ALL OF THE ABOVE
  
- 3) IF YOU NEED ADVICE ABOUT INSTALLING AN IRRIGATION SYSTEM, YOU CAN CALL
  - A) THE GOVERNOR
  - B) YOUR GRANDMA
  - C) THE WATER PROVIDER
  - D) THE POLICE DEPARTMENT
  
- 4) WHEN INSTALLING AN IRRIGATION SYSTEM, YOU MAY BE REQUIRED TO HAVE
  - A) A CELL PHONE
  - B) A SPECIAL PERMIT
  - C) A DECK IN THE BACK YARD
  - D) A PITCHER OF PINK LEMONADE
  
- 5) THE "AVB", "PVB" AND "RP" ARE DEVICES AND ASSEMBLIES THAT ARE USED TO
  - A) KEEP LAWNS GREEN
  - B) PREVENT BACKFLOW
  - C) OPERATE SPRINKLERS
  - D) PLANT FLOWER BEDS

**BUSTER®**  
**BACKFLOW**

1-C 2-D 3-C 4-B 5-B  
ANSWERS





# SALT LAKE COUNTY WATER SAFETY QUESTIONS



1. When riding in a boat, what should every person wear?  
(Personal Flotation Device or life jacket)
2. How do you prevent swimming emergencies?  
(Check everything out very carefully before you go swimming and follow the rules, i.e. don't swim alone, don't swim if you're tired, stay close to shore, let the life guard take care of any problems, etc.)
3. If a person is drowning, the main thing you should not do is?  
(Do not jump in to help them or you could drown, too)
4. What is something you can use that will help you reach a drowning victim.  
(Rope, rescue tube, reaching pole, backboard, life jacket etc. run and get help!)
5. What do you do when you hear thunder and see lightning while swimming?  
(Get out right away)
6. When you are at the pool, what rules do you need to follow?  
(Don't swim alone, do what the lifeguard says, no running, horseplay, or pushing, don't go in the deep end if you can't swim, etc.)
7. What can you do for yourself if you have trouble in the water?  
(Don't panic, yell for help, relax and tread water or float on your back, don't fight the current)

# CERTIFICATE

Congratulations! You have completed the Salt Lake County Water Activity Book! You are now an expert on detecting and preventing storm water pollution. Be sure to tell your parents, friends, and neighbors what you have learned. Everyone needs to help protect the water that we all need.

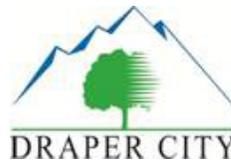
I, \_\_\_\_\_, have completed this  
(sign your name here)  
activity book and will protect the water around me by not  
wasting water, not dumping anything into a storm drain,  
and by telling people about the dangers of storm water  
pollution.



# NOTES & DRAWINGS

# NOTES & DRAWINGS

# SPONSORS OF WATER QUALITY FAIR



Copies available from Salt Lake County and Salt Lake County Stormwater Coalition

[www.stormwatercoalition.org](http://www.stormwatercoalition.org)