



HIGH DESERT WATERSHED

Curriculum Support Designed for Elementary School Teachers

Taking Water Education to the Next Level...

With budget cuts taking hold of extracurricular activities in the classroom, it is more important now than ever before that we get creative to teach our children how to take charge of their environment. This **teacher's guide** provides interactive classroom activities that not only get children thinking about the environment but encourages them to help protect the Mojave River Watershed in our own backyard.

CONTACT: Kelly Koehler, Mojave River Watershed Group Liaison, (951) 462-1106

**MOJAVE RIVER WATERSHED GROUP***Curriculum Activity*

Dear Principal and/or Teacher:

The teacher's guide has been developed by the Mojave River Watershed Group for your use in the classroom to educate students on watersheds and their resources, and encourage active protection of our stormwater.

This packet includes materials for students in grades 4-6 to increase their awareness of the condition of our watershed and inspire creative solutions that can be integrated in everyday life to benefit our stormwater and the community. From fun interactive art activities to educational puzzles and quizzes, students can learn while going through approved curriculum guidelines how they can make a difference for our stormwater's future.

In addition to these materials, the Mojave River Watershed Group offers a variety of other teaching tools available for the entire campus or individual classrooms:

- "I'm A Stormwater Trooper!" Assembly/Presentation
- Science Fair Project Ideas Relating to Stormwater
- School-Wide Newsletter Article
- Open House and/or Back To School Night Informational Table

If you would like to schedule any of these for your school or classroom, please contact Angela Meluski, Mojave River Watershed Group Liaison, by phone at (909) 384-8188 or by email at ameluski@westboundcommunications.com. For more information on our program, please visit www.mojaveriver.org.

Thank you for your willingness to educate our children on the future of our stormwater!

Regards,

Kelly Koehler
On Behalf of the Mojave River Watershed Group
(951) 462-1106
kkoehler@westboundcommunications.com

**MOJAVE RIVER WATERSHED GROUP***Curriculum Activity***FLOWING STORMWATER FACTS****WHAT IS THE MOJAVE RIVER WATERSHED?**

With each rain, thunderstorm or snow, water runs down the mountains and through the desert into the Mojave River and, eventually, into the watershed. Once there, the untreated water flows into our waterways freely and contaminates our water.

WHAT IS STORMWATER?

Stormwater is a term used to describe water that originates during rain or snow. But not all that water can soak into the ground. What happens to the extra water? It becomes surface runoff, which flows into a network of channels, gutters and pipes that empty into the Mojave River Watershed.

HOW DOES THE MOJAVE RIVER WATERSHED GET POLLUTED?

When surface runoff flows into drains and the watershed, it carries with it what is on the surface. Here are some of the items that can pollute the watershed:

- Litter
- Pet Waste
- Cigarette Butts
- Motor Oil
- Anti-Freeze
- Pesticides
- Fertilizers
- Used Paint
- Household Toxic Chemicals

HOW DOES IT AFFECT YOU?

So, why be concerned about stormwater pollution? This water can go untreated and contaminate local drinking water supplies and have negative effects on our local environment and wildlife. Trash and debris accumulate in stormdrains, causing clogs and backups in our neighborhoods or streets.

What else? We live in a desert! We already have a limited source of water so let's do what we can to protect it.

WHAT CAN I DO TO HELP?

It's easy! Small, everyday actions like picking up your pet's waste, sweeping up yard clippings with your parents, and organizing and participating in community clean-up events can all help prevent stormwater pollution.



MOJAVE RIVER WATERSHED GROUP

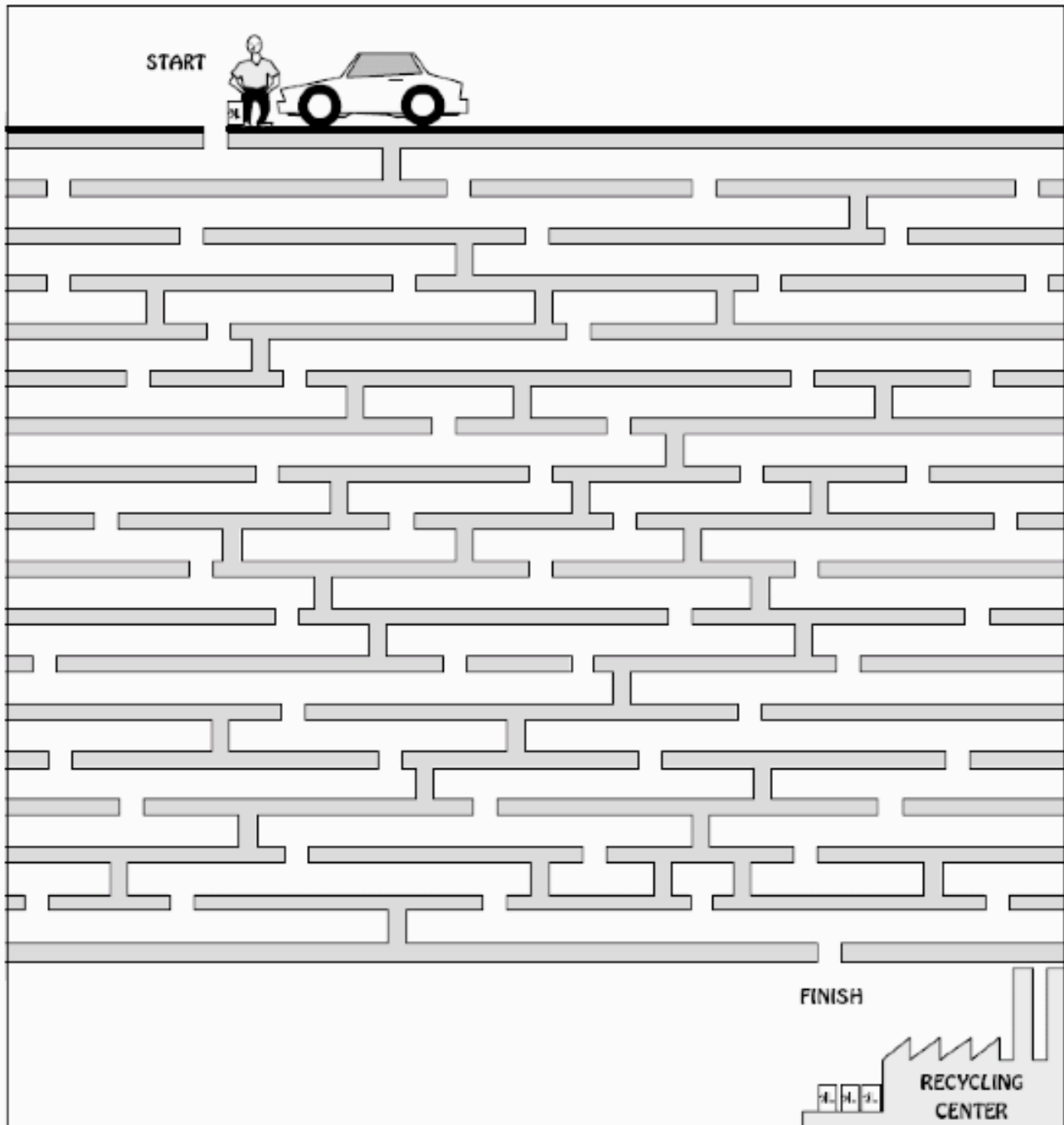
Curriculum Activity



ACTIVITY - STORMWATER SOLUTIONS

What to do:

Never dump oil or other waste down the storm drain since it could pollute the Mojave Watershed and harm our environment and wildlife. Help George take his used motor oil to a recycling center instead.





MOJAVE RIVER WATERSHED GROUP

Curriculum Activity



ACTIVITY - STORMWATER SOLUTIONS

What to do:

Test your watershed knowledge! Take the quiz and see how well you know stormwater. For each multiple choice, select the best answer. Good luck!

1. What is a watershed?
 - a. area of land that water flows across as it moves toward a larger water body
 - b. area of land from which water drains to a particular water body
 - c. moisture released from clouds in the form of rain, snow, hail, etc.
 - d. both a and b

2. What is the name of our local watershed?
 - a. Median River Watershed
 - b. Mojave River Watershed
 - c. Rocky River Watershed
 - d. Hot River Watershed

3. What is surface water?
 - a. water that has not seeped into the ground and is exposed to the air
 - b. water that is under the ground in the High Desert aquifer
 - c. water that runs through the pipes in our homes
 - d. water that is at the bottom of a well

4. Choose the best reason for protecting the health and well-being of our watershed.
 - a. so that more sinkholes can be formed
 - b. so that our children and our children's children can live in a healthy watershed
 - c. So that residential and industrial areas are no longer developed
 - d. so that there are fewer plants and animals living in an area

5. Which of the following statements does NOT belong in a list about water pollution?
 - a. most water pollution is caused by the activities of humans
 - b. pollution that flows from pipes is an example of point source pollution
 - c. water pollution is rarely caused by the activities of humans
 - d. trash, pesticides and fertilizers are examples of pollutants

List three ways you can teach others about watersheds: _____

List three activities you, your friends and your family can do to help protect the watershed: _____



ACTIVITY - MAKE YOUR OWN WATERSHED

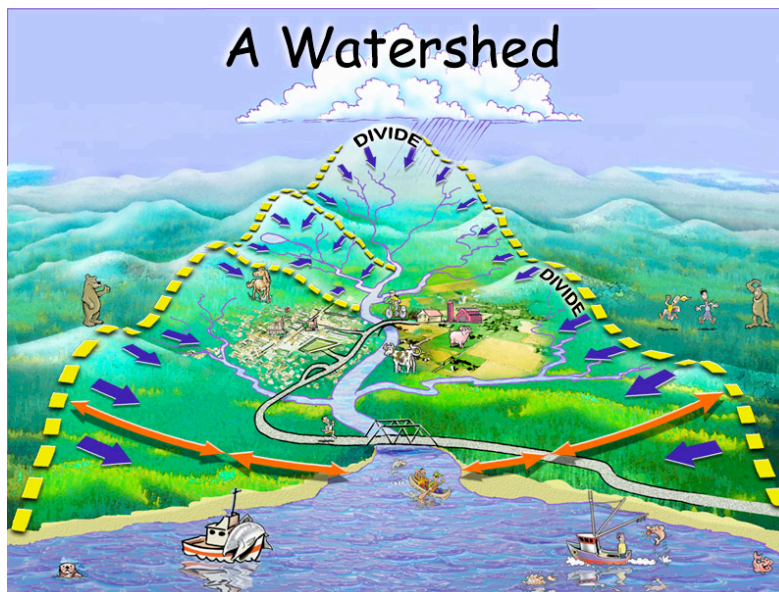
A fun and easy activity that you can do in the classroom or at home. Be sure to take notes as you observe during this activity. You can use this activity to teach others about how important it is to keep watersheds clean and healthy.

MATERIALS

- Sheet of white paper
- Shallow pan
- Water-based colored markers
- Spray bottle of water

DIRECTIONS

1. Take a sheet of paper and crumple it. Next, partially smooth it out, leaving some ridges.
2. Use the markers to color along the edge of the creases. You may want to use different colors to represent a variety of pollutants, such as fertilizer, oil, pesticides, litter, etc.
3. Lay the paper out on the shallow pan and shape it so that it looks like a watershed. Use the creased lines to show elevated lane areas.
4. Use the bottle of water and gently spray the top of the watershed. Keep spraying the paper until the colors begin to flow.
5. Describe what happened at the lowest point of the watershed. Did the different pollutants mix together? If so, where did this happen in the watershed?
6. This is an example of a watershed in action so let's keep ours clean!





MOJAVE RIVER WATERSHED GROUP

Curriculum Activity



ACTIVITY - KEEPING MY NEIGHBORHOOD CLEAN

DIRECTIONS

Take the following survey to find out if you are helping protect our watershed. For each question, answer Yes or No.

QUESTIONS

Do you flush household chemicals down the drain? Yes No

If you have a pet, do you leave pet waste on your yard instead of disposing it properly? Yes No

Do you use a lot of fertilizers and pesticides on your yard? Yes No

Do you litter in your neighborhood? Yes No

Do you use a lot of aerosol spray containers? Yes No

Do you apply chemicals near wells and water bodies? Yes No

Do you burn or bury leftover chemicals or their containers? Yes No

Do you wash the car with a running hose instead of using a hose with a shut-off nozzle or going to a commercial carwash? Yes No

Do you have grass, shrubs and trees that need a lot of water? Yes No

ANSWERS

How many questions did you answer Yes? _____

How many questions did you answer No? _____

If you answered No to all of the questions, you are helping to prevent pollution from entering our stormwater. For each question that you answered Yes, describe how you could improve the situation. Remember, it is up to all of us to keep our watershed clean.
