

October 2020

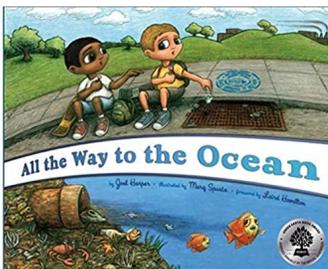
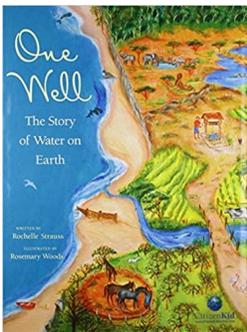
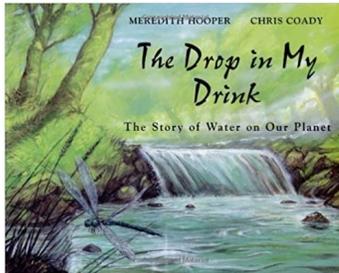
Issue 15

SWIFTlet

Soil and Water Information for Teachers: lessons on environmental themes

STUDYING STORMWATER

LITERACY CONNECTIONS



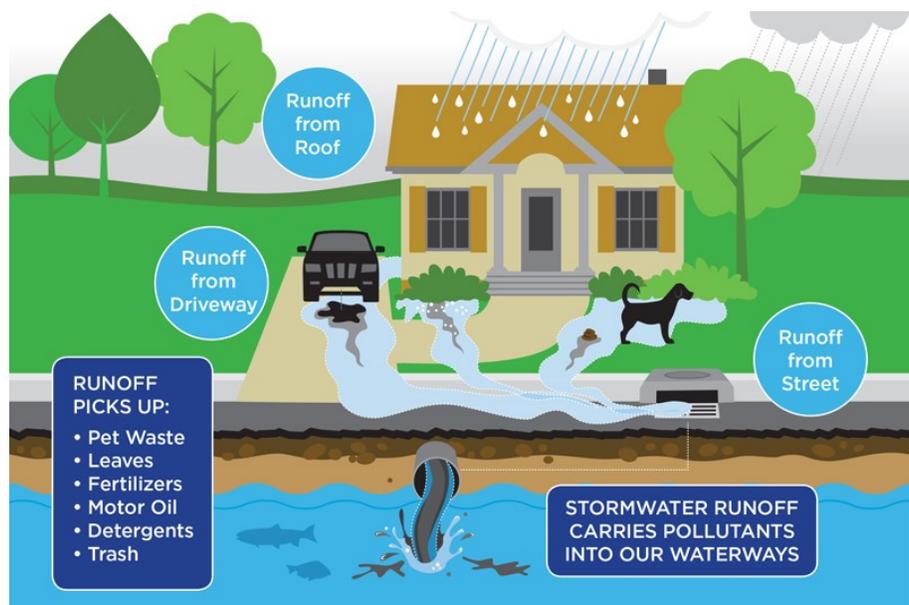
Franklin Soil and Water Conservation District
Creating Conservation Solutions for Over 70 Years

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Listening to the rain outside, one might wonder where it goes? Much of it will soak into the ground providing moisture for the plants above and the animals underground. The rest will move across the land and eventually flow into a local stream or pond. This is especially true of any rain that falls on paved surfaces like roads, driveways, parking lots and side walks. The rainwater that runs off the land and into a body of water is called *stormwater runoff*.

As rainwater runs across paved (impervious) surfaces, it can pick up items like litter, lawn chemicals, oil and gas, soap, dog waste and more, along the way. These items can be carried to a stream or pond, either directly as runoff or indirectly through storm drains (which work to keep our roadways safe when precipitation falls). Water that enters into storm drains travels through underground pipes but ultimately empties into a stream, lake river or pond. It's important to remember what we put on our land could end up in our waterways. Experts believe that almost 70% of the pollution in our rivers and lakes is carried there by stormwater runoff. Stormwater can also cause erosion and flooding. Water contaminated with sediment and pollution takes more time and resources to treat before it can be used for drinking water. Imagine a world without clean water?

The good news? We can make a big difference and improve local water quality with simple backyard conservation practices including: mulching, rain barrels, native plantings, composting and the appropriate use of lawn chemicals.



STUDYING STORMWATER

AT HOME: ONLY RAIN SHOULD GO DOWN THE DRAIN

Have you ever tried to clean water? Let's give it a try!

Supplies:

- * Clean water
- * Empty plastic water bottle
- * Coffee filter
- * Rubber band or tape
- * Possible pollutants: Vegetable oil, dish soap soil, little pieces of paper, etc.
- * Possible cleaning/filtering supplies: Sand, Gravel, Cotton balls, paper towel, etc.
- * **How to video** explaining the set up of the experiment



Procedure:

- * Cut the water bottle, so the top part sits in the bottom portion.
- * Cover the opening with the coffee filter and tape or rubber band it in place.
- * Place your choice of filtering items into the top portion of the water bottle.
- * Mix the pollutants into the clean water.
- * Pour some of the dirty water into the bottle and watch what happens—did it clean the water?
- * If not, brainstorm different ideas and try it again.
- * *For more ideas and information click [here](#)*

ADDITIONAL RESOURCES

Freddie teaches about Stormwater

No Water off a Duck's Back Experiment

(Click on experiment 7)

US EPA Stormwater Resources for Education

See if you can correctly answer the quiz questions:

Only Rain in the Storm Drain

Apply that knowledge and see if you can spot all of the sources of pollution in:

What's Wrong with this picture?

GIVE IT A TRY!!

Storm drain art is a unique way to share information about protecting waterways by reminding citizens that *only rain should go down the drain*. Use **this coloring page** to create your own storm drain art design. If you want to go bigger with sharing your message, consider creating storm drain chalk art in your neighborhood. Be sure to get permission/assistance from an adult before creating your art.

QUESTIONS TO EXTEND LEARNING

- * What item was most effective in cleaning the water in the experiment above?
- * What pollutant was the most difficult to remove?
- * What do you think are some of our largest sources of water pollution in our local rivers/streams?



Check out **this video** of a watershed model demonstrating stormwater and the resulting water pollution.

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