

This booklet belongs to: _____

The Borough of Phoenixville Schuylkill River Stormwater Activity Book



An activity booklet designed to teach people about water resources
and stormwater pollution

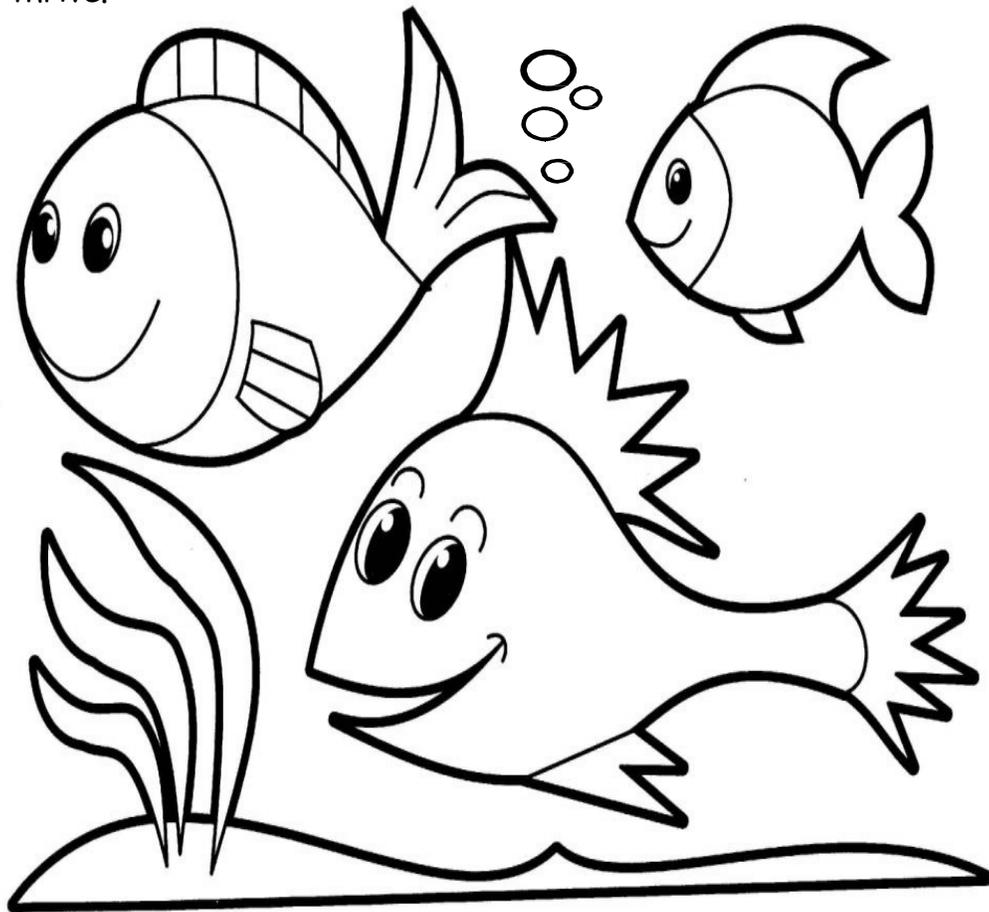
What is Stormwater?

When rain falls or snow melts, where does the water go? Some is soaked into the ground, some sits in puddles, and some disappears. Water that flows over the land surface, downhill to the nearest stream or ditch; we call stormwater runoff.

When storm drains are free of debris, water can easily drain from roadways. When storm drains are clogged, this causes the potential of flooding on roadway surfaces, which can also cause contamination. Never put anything down a storm drain.

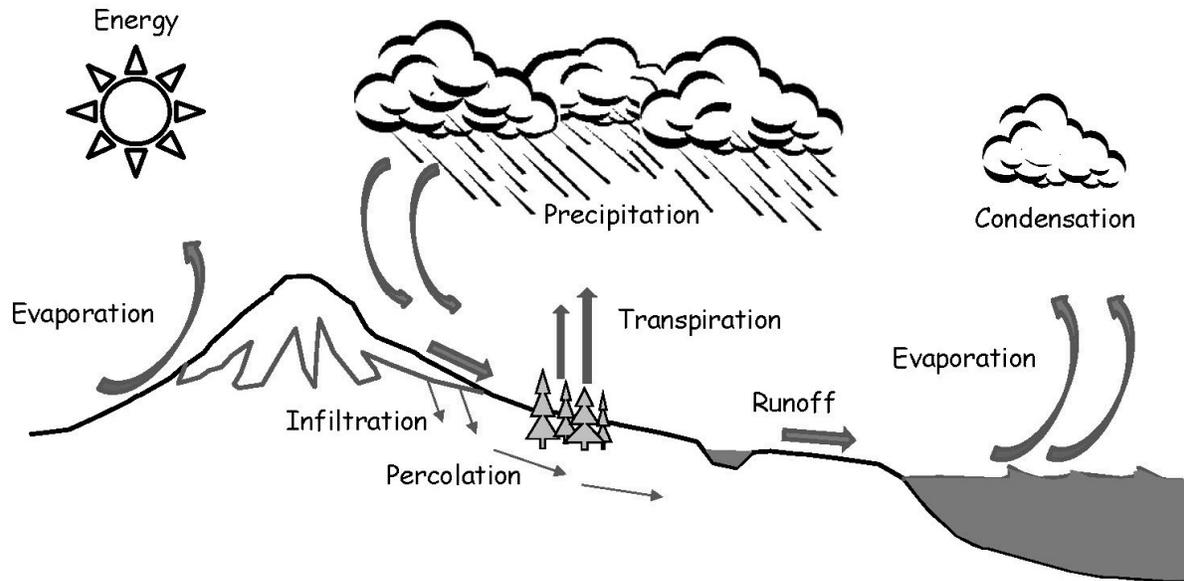
Color the Fish

Did you know that the Schuylkill River area located in Phoenixville is impaired by siltation? Siltation makes the water dirty and creates an environment where fish are unable to thrive.



Activity Challenge: Draw your own picture of what you think is needed for a healthy watershed.

The Water Cycle



Evaporation: When water is heated by the sun, it causes the water to turn into vapor and rise into the air.

Transpiration: Water that plants give off as vapor.

Condensation: When water vapor cools, it turns into tiny drops of water. These combine to make clouds.

Precipitation: The water in the clouds falls to the earth as rain or snow.

Runoff: The water falling to the ground through precipitation runs back into the lakes, rivers and oceans over the surface of the ground.

Infiltration: When water enters the soil surface.

Percolation: What water's called after it's infiltrated into the ground and then moves through the soils.

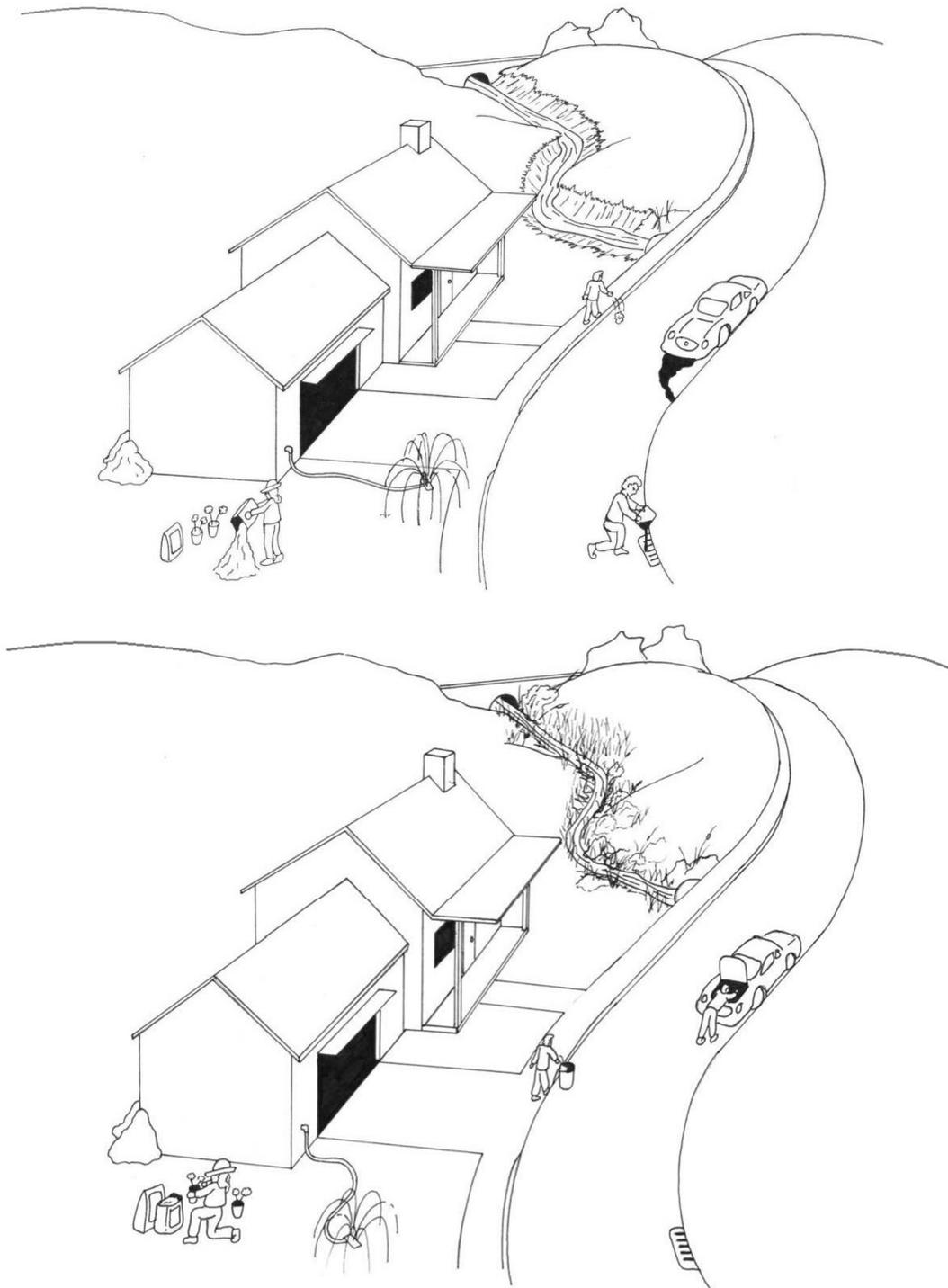
Hydrology: The study of how water moves through the environment.

Impervious Surfaces: Are mainly artificial surfaces like roofs, roads, sidewalks, and parking lots that are impenetrable to water, which makes water runoff.

Did you know that the water you drink is as old as the earth itself? Dinosaurs may have swum in the water from your kitchen sink. The earth's water supply is about the same as it was millions of years ago. That's because every molecule of water is recycled over and over through the water cycle. More than 99% of the earth's water is salt water in the ocean or trapped in the ice caps or deep underground. That leaves only 1% of the earth's water available for us to use. Let's make sure we protect that water and keep it clean.

Stormwater Pollution Picture Search

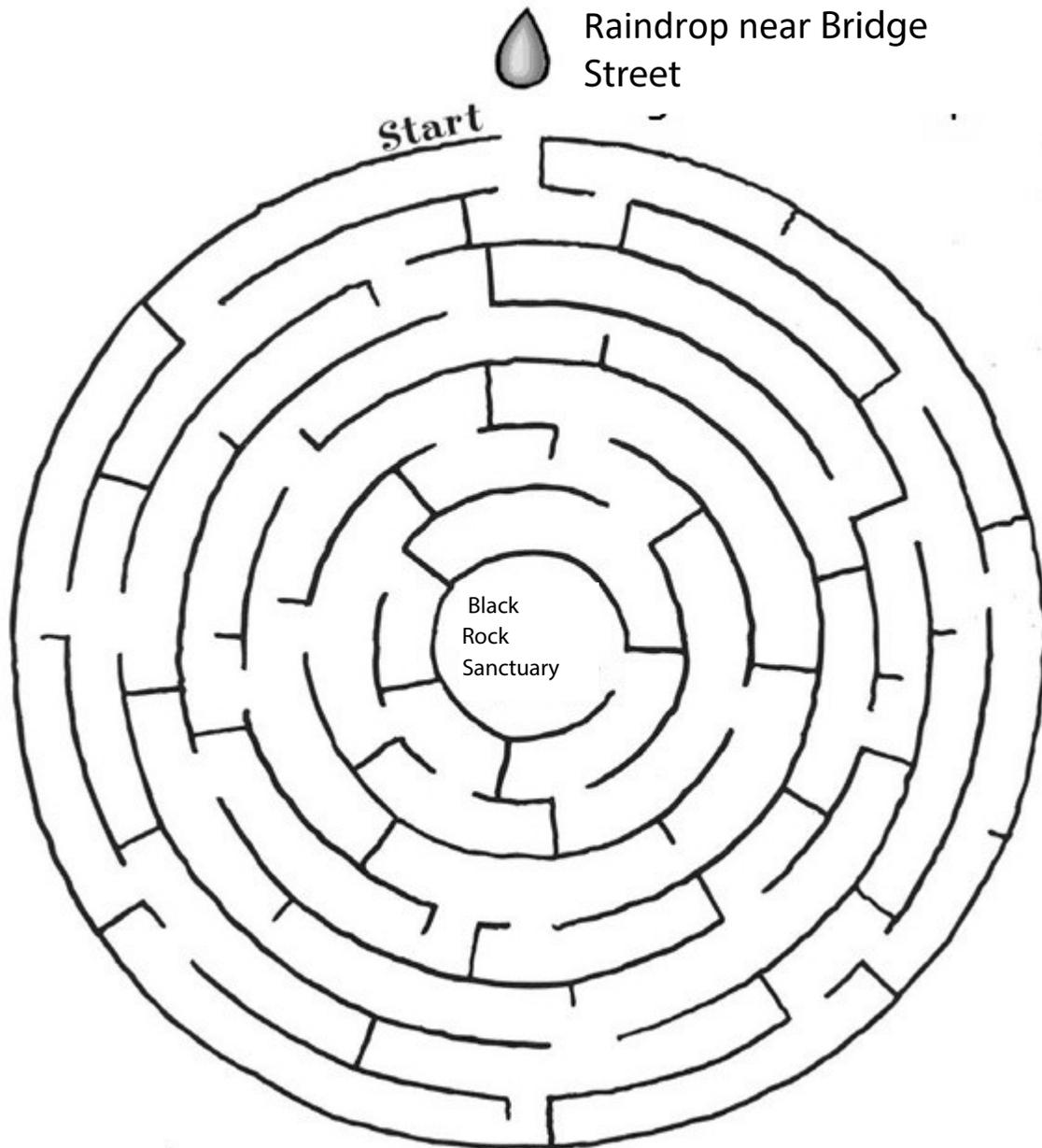
Cities and towns have more stormwater runoff than areas in the country because they have more concrete so the water can't soak into the ground. Impervious surfaces like roads and parking lots can contribute lots of pollutants to our streams. Compare the two pictures below. Circle all the differences between them that you can find that could result in polluted runoff. You should find 6 things.



Activity Challenge: What do these differences have to do with protecting our water from stormwater runoff?

Water Maze

Lead the water droplet through the maze from where it landed in the upper reaches of Phoenixville near Bridge Street to Black Rock Sanctuary.



Did you know that a cistern is a tank for storing rainwater and rain barrels are a type of cistern?

Activity Challenge: Create your own maze with multiple exits. Is there any shape that works best?

Word Search

Pollution in our streams and groundwater can come from many sources (including nonpoint) and not just from big spills. See if you can find the pollutants listed below.



Agriculture

Animals

Cars

Chromium

Copper

Dirt

Driveway

Fertilizer

Garbage

Gasoline

Grass Clippings

Grease

Lead

Motor Oil

Mud

Nitrate

Pesticides

Phosphorous

Salt

Sediment

Sewage

Tar

Trash

Wastewater

Wildlife

Polluted water that goes down the drains in your house goes to a wastewater plant or septic system for treatment.

Activity Challenge: Make your own word search with words you think are important.

