

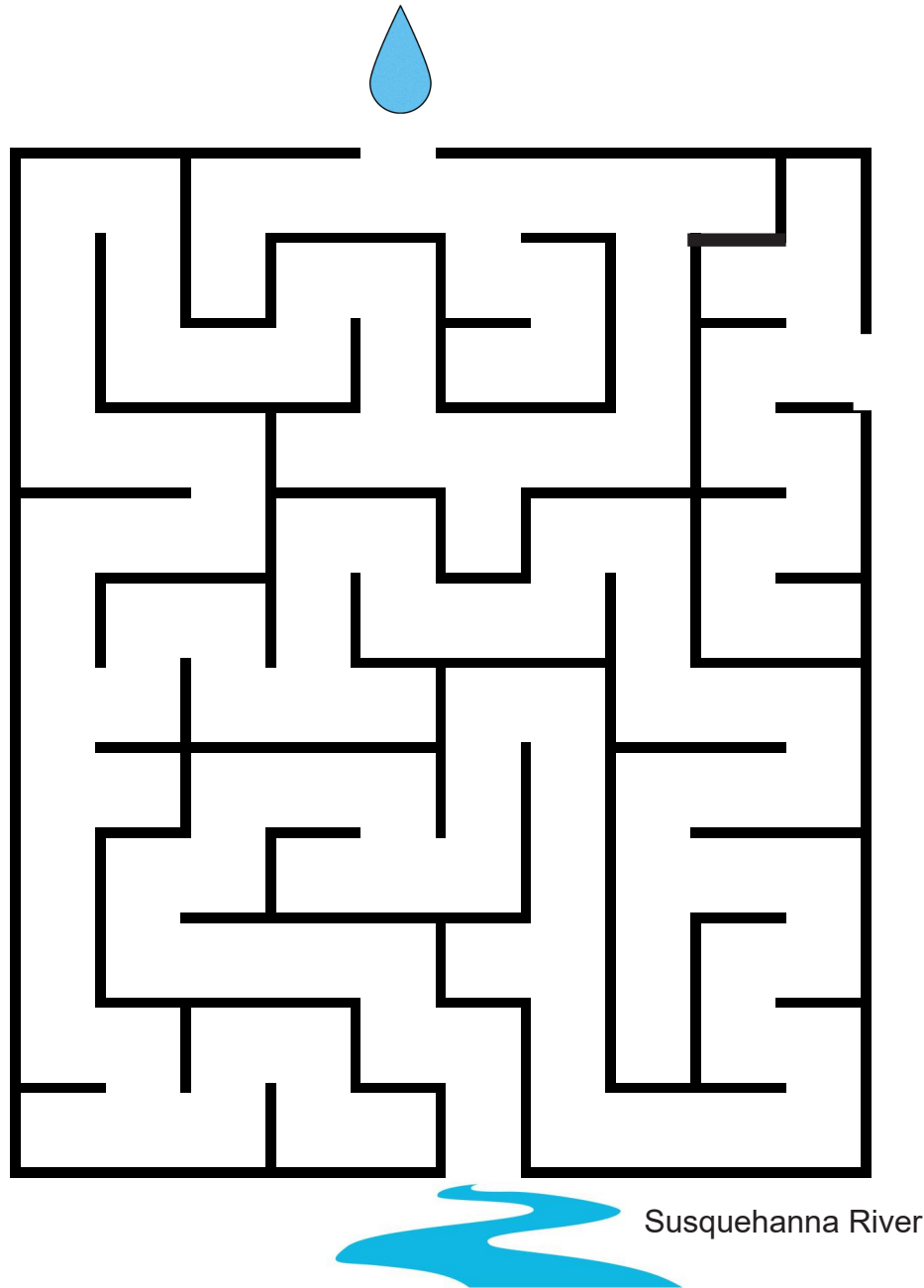
STORMWATER

ACTIVITY BOOK



The Amazing Stormwater Mystery

Everyone knows that water flows. But who knows where the water goes? Follow the gutter through the storm drain system to find out.



Where did the stormwater go? _____

Stormwater runoff happens when rain and snowmelt flows overland and does not soak into the ground. As the water flows over the land or a hard surface (paved streets, parking lots, and building rooftops), it picks up trash, chemicals, dirt or other pollutants. That's why it is so important to clean up after yourself!

Stormwater Pollutants Word Search



BACTERIA
DEBRIS
DETERGENT
DIRT
DRIVEWAY
FERTILIZER
GARBAGE
GASOLINE

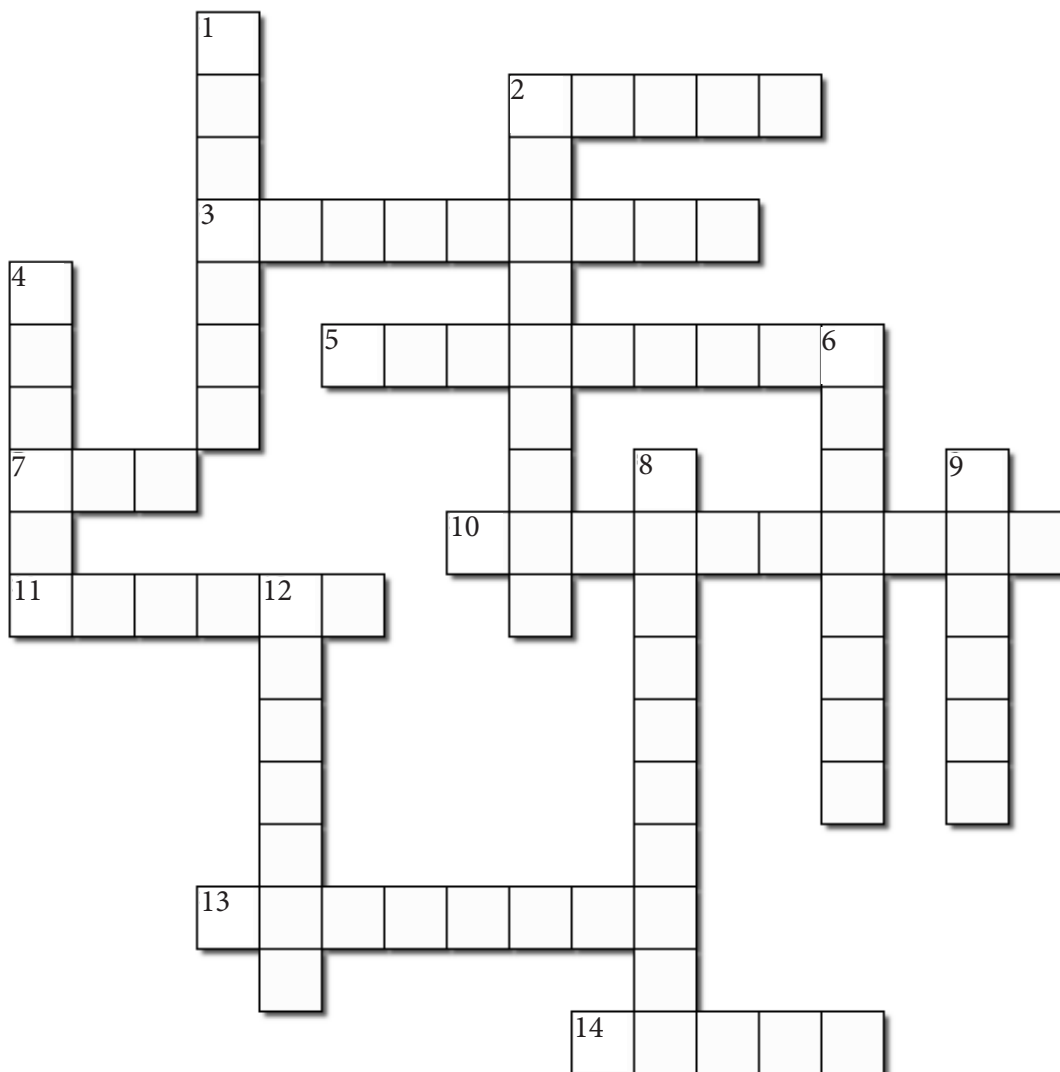
GRASS
GREASE
METALS
MUD
NUTRIENTS
OIL
PESTICIDES
SALT

SEDIMENT
SEWAGE
SOAP
TAR
WASTE
WASTEWATER
WILDLIFE

Hidden in the puzzle above are words having to do with common types of water pollutants. Remember to look up, down, across, backwards and diagonally!



Take the Stormwater Runoff Challenge



Across

2. The _____ of speeding boats can erode shorelines.
3. Excess sediment, nutrients, toxics, and pathogens are all types of runoff _____.
5. Fertilizers and animal wastes contain _____ that 'feed' algae and other aquatic plants harmful to water quality.
7. A single quart of motor _____, if disposed of improperly, can pollute 2 million gallons of water.
10. Follow directions carefully when applying _____ on your lawn-more isn't always better.
11. Wetland plants act like a natural water _____, removing harmful pollutants from stormwater runoff.
13. Polluted runoff (also called _____ source pollution) comes from so many places that its hard to 'pinpoint' a source.
14. Polluted runoff from both rural and _____ sources has a significant impact on water quality.

Down

1. Yard and vegetable waste are suitable additions to a _____ pile.
2. The area of land that drains into an estuary, lake, stream, or groundwater is known as a _____.
4. Polluted _____ is the nation's #1 water quality problem.
6. Too much _____ in water can harm aquatic life.
8. _____ is rainwater or melted snow that runs off streets, lawns, and other sites.
9. Maintaining your _____ tank will help to prevent bacteria and nutrients from leaking into groundwater and surface waters.
12. _____ of soil from barren land can cloud nearby streams.

Choices:

urban	runoff	nonpoint
compost	pollution	watershed
fertilizer	wakes	nutrients
erosion	oil	sediment
filter	septic	stormwater




Solve the Hidden Stormwater Message

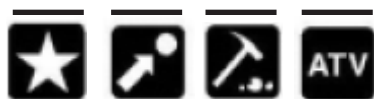
What is stormwater?

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.

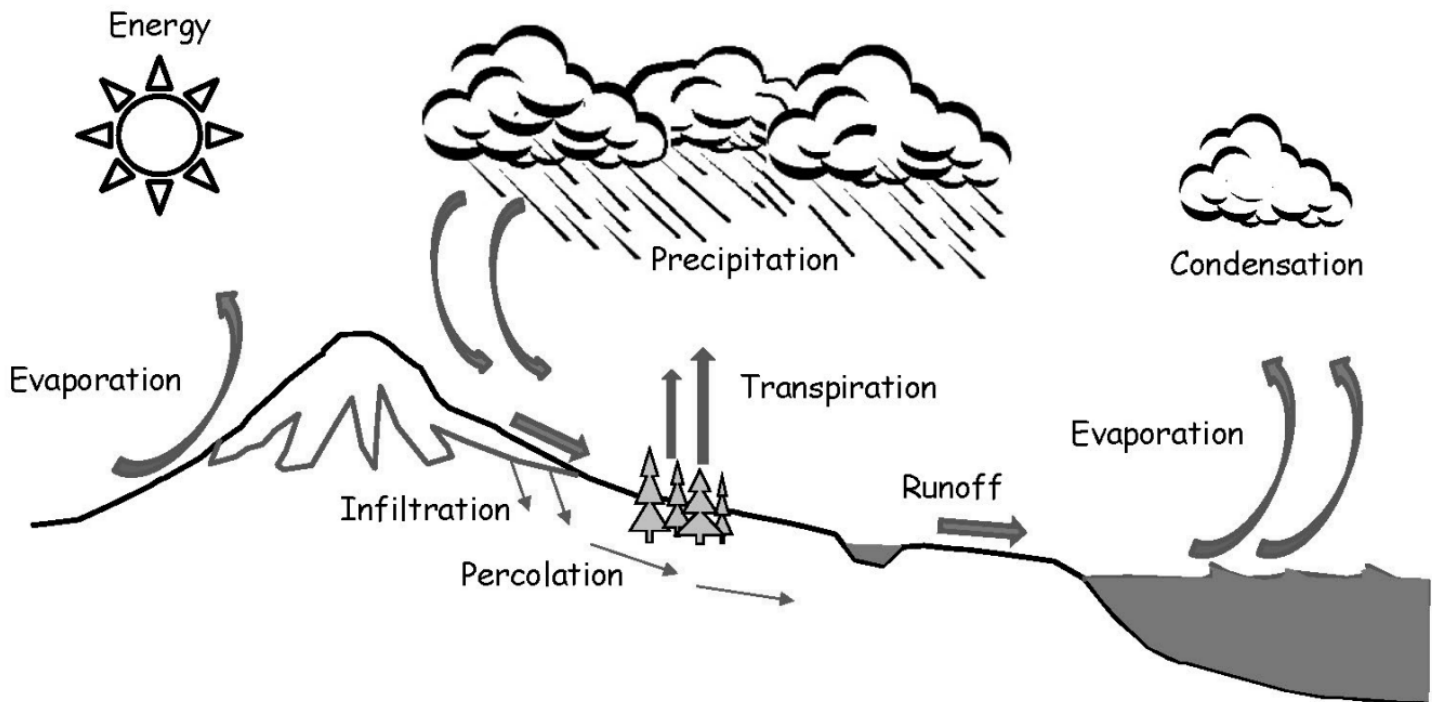
When storm drains are free of debris, water can easily drain from roadways. When storm drains are clogged, this causes the potential of flooding on roadway surfaces, which can also cause contamination. **Never put anything down a storm drain.**

Solve the hidden message. Use the clues below!

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



The Hydrologic 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.