

# Stormwater Walk

## Be a Stormwater Sleuth!

You can be a stormwater sleuth at your home, school or camp. First, think about and predict where rainwater goes after it falls on the property. Then go outside and explore where rainwater likely flows after it lands on a roof-top, driveway, or sidewalk. Explore what likely happens to it when it falls onto soil or plants like grass, flower beds and trees. What is the difference? Is one better than the other?

## Background Information

Most of us have learned about the water cycle and how water moves from the earth to the atmosphere and back to the earth. When water falls to earth as rain, we call that **STORMWATER**. This activity will start you thinking about what happens to rainwater at your house or school after it hits the roof or ground. When rain falls on a roof-top it runs off of the roof, into roof gutters, and out of a downspout away from the building. Rainwater that is moving over and off a surface is called runoff.

Stormwater runoff happens when rain falls on any hard surface where it cannot soak into the ground. Areas with soil and plants do not have much runoff because a lot of the rainwater soaks into the ground (infiltrates). Surfaces that are hard or made of concrete have a lot of runoff because the water cannot soak in.



***Trees, shrubs, and planted areas help rainwater soak into the ground.***

## Instructions

Be a stormwater sleuth! Take a walk around your school or home. While walking, observe and record things that can affect the amount of stormwater runoff; such as hard surfaces, planted areas, downspouts and more. Use the activities on the following pages to collect the data. Then use the data to grade your house or school. When finished, explore and discuss ways that would help slow down stormwater so more can soak in and less will run off. Also come up with suggestions on how the neighborhood could reduce stormwater runoff.



## Stormwater Walk

### ● Instructions (continued)

#### Step 1. Create a Tally

As you walk around your house or school keep track of how many trees, gardens and flower beds, and storm drains you see on the property. Use the tally sheet below to keep track of what you observe.

<u>How Many...</u>	<u>Tally</u>	<u>Number</u>
...trees		
...gardens and shrub or flower beds		
...storm drains		

#### Step 2. Take a Downspout Survey

Do you know what a downspout is? A downspout (or roof gutter) takes the water that comes off of a roof and directs the water away from the building.

Some downspouts direct water onto grass, plants, mulch, or rocks. This practice slows water runoff, giving it a chance to soak into the ground. Some downspouts direct water onto driveways, sidewalks or the street. These areas move water quickly away from a building and off of a property. There can also be downspouts that take water directly to a storm drain, stream, or lake.



*This downspout connects to the roof gutter.*

<u>How many downspouts direct water...</u>	<u>Tally</u>	<u>Number</u>
...to grass or planted areas?		(A)
...to mulched or rocked areas?		(B)
...to bare dirt, a driveway, sidewalk, or the street?		(C)
...to a storm drain, stream or lake?		(D)
How many downspouts does your house or school have in total? (A + B + C + D)		(E)

## Stormwater Walk

### Instructions (continued)

#### Step 3. Score your House or School

Using the data collected on your stormwater walk, fill in the blank for each of the following questions. Then circle the number of points that go with the answer.

1. How many trees did you count? \_\_\_\_\_

- More than 5: 10 points
- 3 to 5: 5 points
- 1 or 2: 3 points
- 0: 0 points

2. How many gardens and shrub or flower beds did you count? \_\_\_\_\_

- More than 5: 10 points
- 3-5: 5 points
- 1 or 2: 2 points
- 0: 0 points

3. How many downspouts are directed onto grass, plants, mulch, or rocks? \_\_\_\_\_ (A + B)

What is the total number of downspouts? \_\_\_\_\_ (E)

What share of the downspouts point onto grass, plants, mulch, or rocks? \_\_\_\_\_  $\frac{(A + B)}{E}$

- They all do: 10 points
- At least half of them do: 5 points
- Less than half of them, but at least one does: 2 points
- None: -5 points

#### Did you know?

The larger your house or school, the more stormwater runoff it produces. It's important to catch at least some of that runoff before it flows into a storm drain and then into a river, stream or lake. Rainwater is valuable and can be put to good use by slowing it down and soaking it in.

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[water.unl.edu](http://water.unl.edu)

## Stormwater Walk

### Instructions (continued)

#### Step 3. Score your House or School (continued)

4. Do the storm drains near your house/school have a label saying what they are or where the water goes?
- All of them do: 10 points
  - Some of them do: 5 points
  - None of them do: 0 points
  - If no storm drains on or near the property: 5 points
5. How much litter do you see at your house/school?
- None: 10 points
  - Some: 5 points
  - A lot: 0 points
6. Do you ride a bus, walk, bike, or carpool to school?
- Most of the time: 10 points
  - Sometimes: 5 points
  - Rarely or never: 0 points

**Score**

**Total up the points from questions 1 to 6 to find the score for your house or school**

**Total Score** \_\_\_\_\_

<b>0-20 points</b>	<b>Needs Work</b>
<b>21-40 points</b>	<b>Average</b>
<b>41-60 points</b>	<b>Great</b>

Now add up all of the points to give your house or school a score.

### Discussion Questions:

1. Stormwater runoff can pick up litter and carry it to surface water. What else can it pick up?
2. What can you do to improve the score of your home or school?
3. Why might it make a difference if you ride a bus, walk, bike, or carpool to school?
4. Where does the runoff go after it leaves your house or school?

## Stormwater Sleuth Examines Careers



**Watershed Ecologist**

**Horticulturalist/Forester**

**Land Developer/Builder**

**City/Community Planner**

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