

Stormwater Management in Your Schoolyard



Student Journal

Name: _____

Teacher's Name: _____

Name: _____



MODULE ONE: An Introduction to Watersheds

BEFORE LESSON

Please circle the best answer.

1. My school is located in the _____ River watershed.
 - A. Nile
 - B. Cooper**
 - C. Raritan
 - D. Passaic
2. What are some things that you might find in stormwater runoff?
 - A. Rain water
 - B. Trash
 - C. Motor oil
 - D. All of the above**

Please answer the question below in one or two sentences. If you do not know the answer, please write "I do not know." If you need more space, please continue writing on the back of this paper.

3. What is a watershed?

A watershed is an area of land that water flows across, through, or under on its way to a stream, river, lake, ocean, or other body of water.

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MODULE TWO: Connecting Watersheds to Land Use

BEFORE LESSON

Please circle the best answer.

1. What is a watershed?
 - A. A shed that holds water.
 - B. An area of land that does not have a stream, river, lake, ocean, or other body of water nearby.
 - C. An area of land that water flows across, through, or under on its way to a stream, river, lake, ocean, or other body of water.
 - D. A bathtub.
2. What are some ways that people use land?
 - A. Agricultural (vegetables, fruits, farm animals)
 - B. Residential (houses, apartments, townhouses)
 - C. Transportation (roadways)
 - D. All of the above

Please answer the question below in one or two sentences. If you do not know the answer, please write "I do not know." If you need more space, please continue writing on the back of this paper.

3. How is urban land different than open space land?

Urban land is fully developed and usually contains buildings and roadways. Open space land is not developed and usually contains agricultural, parks, and forested areas.

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MODULE THREE: Stormwater Runoff and Nonpoint Source Pollution in Watersheds

BEFORE LESSON

Please circle the best answer.

1. What is nonpoint source pollution?
 - A. Pollution which comes from a specific source, such as a pipe from a factory.
 - B. Pollution which comes from many widespread sources, such as runoff from cities, suburbs, and farms.**
 - C. I do not know

2. Which of the following are examples of nonpoint source pollution?
 - A. Improper use of fertilizers, pesticides, and herbicides by home owners and farmers.
 - B. Litter and recyclables found on the ground.
 - C. Not picking up after your dog when out for a walk, or not fixing a car when it leaks oil.
 - D. All of the above.**

Please answer the question below in one or two sentences. If you do not know the answer, please write "I do not know." If you need more space, please continue writing on the back of this paper.

3. Provide an example of nonpoint source pollution. For that example, what can you do to prevent that pollution from happening?

Answers will vary. To prevent nonpoint source pollution, I can pick up my pet's feces from off the ground. If I see litter on the ground, I can pick it up. I can reduce, reuse, and recycle. I can install a rain garden to help reduce stormwater runoff. I can make sure my parents use fertilizers/pesticides/herbicides properly and if I see an oil leak, I can tell my parents right away.

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MODULE FOUR: Rain Garden Soil Considerations

BEFORE LESSON

Please circle the best answer.

1. What is a rain garden?
 - A. A garden that contains fruits and vegetables.
 - B. A garden that collects stormwater runoff.**
 - C. A rain forest.
 - D. A bird bath.

2. Why is the soil important in a rain garden?
 - A. The soil provides food for the plants.
 - B. The soil helps the water infiltrate to the groundwater.
 - C. The soil helps the plants in the rain garden grow.
 - D. All of the above**

Please answer the question below in one or two sentences. If you do not know the answer, please write "I do not know." If you need more space, please continue writing on the back of this paper.

3. How are clay soils different than sandy soils?

Clay soils do not infiltrate water well, while sandy soils do. Clay soils have small pore spaces between the soil particles, while sandy soils have large pore spaces between the soil particles.

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MODULE FIVE: Rain Garden Native Plant Considerations

BEFORE LESSON

Please circle the best answer.

1. What are the names of the parts of a rain garden?
 - A. Bottom, Middle, Top
 - B. Watershed
 - C. Soil, Plants
 - D. Base, Slope, Buffer**
2. What things does a garden need to help it grow?
 - A. Sunlight, air, water, nutrients, space**
 - B. Sunlight, water
 - C. Air, water, nutrients
 - D. None of the above

Please answer the question below in one or two sentences. If you do not know the answer, please write "I do not know." If you need more space, please continue writing on the back of this paper.

3. What is a native plant?

A native plant is a plant that is indigenous to the region.

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MODULE SIX: Rain Garden Design Exercises

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Please circle the best answer.

1. Which of the following are not proper locations to install a rain garden?
 - A. Near downspouts to collect where water drains from rooftops.
 - B. Along driveways, sidewalks, or parking lots.
 - C. ***Anywhere in your yard.***
 - D. I do not know.
2. What is the best soil type for a rain garden?
 - A. Sand
 - B. Clay
 - C. Silt
 - D. ***In between sand and silt***

Please answer the question below in one or two sentences. If you do not know the answer, please write "I do not know." If you need more space, please continue writing on the back of this paper.

3. List and describe three benefits of rain gardens.

Answers will vary.

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MODULE EIGHT: Rain Garden Installation

BEFORE LESSON

Please circle the best answer.

1. Which of the following installation steps are necessary for a rain garden?
 - A. Removing existing grass and digging out to the desired garden depth.
 - B. Adding soil if needed, leveling the base, and planting native plants.
 - C. All of the above.

2. How can a rain garden help prevent water pollution?
 - A. By reducing nonpoint source pollution runoff into storm drains.
 - B. By allowing stormwater to filter slowly into the ground and recharge our groundwater supply.
 - C. All of the above.

Please answer the question below in one or two sentences. If you do not know the answer, please write "I do not know." If you need more space, please continue writing on the back of this paper.

3. List and describe two things you need to do to install a rain garden.

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**MODULE NINE: Rain Garden Maintenance and
Community Presentations**

BEFORE LESSON

Please circle the best answer.

1. Which of the following maintenance measures are necessary for a rain garden?

- A. Weeding
- B. Watering
- C. All of the above.

2. What is water pollution?

- A. Contamination of harmful substances within a water body.
- B. Contamination of harmful substances found near a water body.
- C. Substances that naturally occur within a water body.

Please answer the question below in one or two sentences. If you do not know the answer, please write "I do not know." If you need more space, please continue writing on the back of this paper.

3. List and describe two ways that you can improve the water your watershed.

Answers will vary.

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