



## What Is a Watershed

### Grade Level

3rd–4th Grade

### Time Required

30–40 minutes

### Lesson Synopsis

Students will learn what a watershed is and how rainwater runoff can carry pollution into local rivers, lakes, and streams. Through a hands-on watershed model activity, students will observe how water moves across land and transports litter and other pollutants. Students will connect waste reduction practices, such as reusing paper, to protecting local waterways in Sevier County.

This lesson helps students understand how everyday actions on land affect water systems and encourages responsible environmental choices.

### Learning Objectives

By the end of this lesson, students will be able to:

1. Define a watershed in their own words.
2. Explain how runoff moves across land.
3. Describe how pollution can travel through a watershed.
4. Identify local water bodies connected to their watershed (Little Pigeon River, Douglas Lake, local creeks).
5. Explain how reducing waste helps protect waterways.

### Tennessee Standards Alignment

3-ESS2-1 / 4-ESS2-1

4-ESS3-1

### Materials List

- White paper (one per student)
- Markers or crayons
- Spray bottle with water
- Tray or bin to contain water
- Paper towels

### Background (Grade-Appropriate Explanation)

A watershed is all the land where rainwater drains into the same river, lake, or stream. Everything on the ground — including litter — can be carried by rain into our water.

You may reference local water systems such as:

- Little Pigeon River
- Douglas Lake
- Local creeks in Sevier County

## **Lesson Procedure**

### **1. Introduction**

Say:

“Everywhere you stand is part of a watershed. That means when it rains, water flows from here into a larger body of water.”

Ask:

- Where does rainwater go after it falls?
- Does water stay in one place?

### **2. Build the Watershed Model**

Have students:

- Crumple a piece of paper into a loose ball.
- Gently unfold it to create ridges and valleys.
- Color the high areas brown or green (land).
- Draw rivers or lakes in the lower areas.
- Add neighborhoods, roads, farms, or parks.
- Place red dots to represent pollution sources (litter, oil, fertilizer, etc.).

Explain that the ridges represent higher land, and the valleys represent streams and rivers.

### **3. Spray and Observe**

Lightly spray the paper with water.

Use the term runoff.

Ask students to observe:

- Where does runoff collect?
- Does pollution stay in one place?
- What happens to the red dots?

Discuss how water flows downhill and carries pollution into larger water systems.

### **Discussion Prompts**

- Why did water move the way it did?
- How does litter on the ground affect rivers?
- How might pollution in Sevier County travel to larger water systems?
- How does reusing paper reduce pollution?

Encourage students to connect their observations to real-life examples in their community.

### **Keep Sevier Beautiful Teaching Connection**

“When we reduce waste — like reusing paper — less trash can end up in storm drains and rivers. That’s how Keep Sevier Beautiful helps protect our local watersheds.”

Discuss simple actions students can take:

- Reuse materials
- Recycle correctly
- Pick up litter
- Dispose of waste properly

## **Evaluation**

### **Writing Assessment**

Students will write one paragraph explaining how litter travels through a watershed.

The paragraph should include:

- A definition of a watershed
- An explanation of runoff
- A description of how pollution moves
- One example of how people can reduce pollution

Teachers may assess for accurate vocabulary use and clear cause-and-effect explanation.