

## Exploring Watersheds

Duration **12:12** (cc)

Produced by [Tarrant Regional Water District](http://www.trwd.com)

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## STEAM Curriculum Lesson Extension:

*Get Your Deposit Back*, Grade 7

### Goal

Students will observe a simulation of a watershed, predict outcomes as the demonstration progresses, and discuss ways to protect the watershed in which they live.

### Overview

Aaron Hoff, Watershed Programs Manager for TRWD, guides students through a simulation of how a watershed works as its 3 components, water, sediment/soil and vegetation, interact. Students will be asked to contemplate various questions posed throughout the video and to take a challenge to protect the watershed they live in.

### Connections to EarthX STEAM Curriculum Lesson: *Get Your Deposit Back*

During the lesson, students will discover the results of poor erosion control and how it affects the water quality of a watershed. This video gives background information about how erosion occurs and how the resulting sediment creates problems in the watershed. The other video offered for this lesson in Virtual Field Trips highlights solutions to this problem.

### Guiding Questions

1. If the “house” that fell into the stream could talk, what advice would it give?
2. Which of the three components of a watershed has the greatest impact on keeping a watershed “healthy?” (*Accept any answer that is logically supported by reason.*)
3. Water, sediment, and vegetation react together to determine the quality of the watershed in which you live. What can you do with the help of others or on your own to help protect it?

### Vocabulary

- Simulation
- Watershed
- Sediment
- Vegetation
- Hypothesize
- Tributaries
- Reservoirs
- Upstream/downstream
- Water quality
- Meander
- Erosive forces
- Deposition
- Displaced
- Volume

### Standards

#### Next Generation Science Standards

4-ESS2-1  
MS-LS2-4  
MS-LS2-5  
MS-ESS3-2

#### Texas Essential Knowledge and Skills (TEKS) Science Objectives

4.b.7A  
4.b.7B  
5.b.7B  
7.b.8B  
7.b.8C