Trip of a Drip

Grades: 5th - 8th

Standards
Michigan K-12 Standards in Science

Next Generation Science Standards

Urban Futures Connection
We will include topics of climate change, green infrastructure, and ecosystem services throughout this program to understand the growing urban landscape.

STEM Connection
Students will follow models and maps to traverse the Rouge River watershed to understand erosion and the force of water through both a natural and unnatural landscape.

Take Home
Activity worksheets are available via email upon request.

Overview
Students will experience an immersive watershed program focused on local patterns in weather, climate, groundwater hydrology and land usage. In this program students will explore the connections between human activity and watershed health as well as how that plays a role in plant and animal communities throughout the Rouge River watershed.

Details
- This program lasts 2 hours and can be adapted to suit your needs
- Offered year-round
- Appropriate for Grade Levels 5-12.

The Experience
In this program students will be engaged in a multifaceted program experience with activities that may include:
- Exploring a brief history of southeast Michigan in relation to the Rouge River Watershed: from glacial formation, historical Native American use of the river and its watershed, influence of industrialization, and various management decisions and practices that have brought the Rouge to its present condition.
- Discussing simple, everyday actions they can take to improve the health of the Rouge River and its watershed.
- Discussions and observations relating to how impervious surfaces impact the ecological quality of the Rouge River and its watershed.

Helpful Hints
This program will mostly be held in the great outdoors, rain or shine. Please make sure students and adult chaperones are dressed for the weather and potentially wet and muddy ground conditions, depending on the season.

Standards

Grade: 5th

Michigan K-12 Standards in Science
Earth's Systems

5-ESS3-1
Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. **

Next Generation Science Standards
Earth Systems: Earth and Human Activity

5-ESS3-1.
Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

Grades: 6th - 8th

Michigan K-12 Standards in Science
Natural Selection and Adaptations & Human Impacts

MS-LS4-1.
Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past. **

- Students will look for evidence of past glacial processes along the watershed that still shapes the river system today.

MS-ESS3-4
Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.

- Students will learn how urbanization throughout the Rouge River watershed affects the local ecosystems.

Next Generation Science Standards
Earth Systems: Earth and Human Activity

MS-ESS3-4
Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.

- Students will be asked to correlate increased urbanization within Metro Detroit to visible changes within the watershed.

* - Integrates traditional science content with engineering.
**- Allow for local, regional, or Michigan specific contexts or examples in teaching and assessment.