

Merry Lea Environmental Learning Center of Goshen College

Rock Cycle 9th - 12th

Program Description

Dig into northeastern Indiana's rich geological history! Students discover the impact glaciers had on this area by seeing glacial activity up close. Hike down an esker, move through layers of topsoil and glacial till to find a peat bog, explore and identify rocks in an abandoned gravel pit, and use models to understand how glaciers changed Indiana's landscape.

Program Objectives

Students will:

- Discover how the landscape in northeastern Indiana has changed over time
- · Learn about the forces that changed the landscape
- Explore how the rocks and soil influence the plants and animals that live in this area

Program Outline

Students rotate in groups through four different activity stations:

- Lab Investigation: Students learn about the history of the landscape and use microscopes to do some closeup investigation
- The Models: Students try out models of changing landscapes and investigate how humans make use of rocks and gravel
- 3. Gravel Pit: Students explore an old gravel pit to look at rocks brought here from the last glacier and deposited in an esker
- 4. Esker Hike: Students hike a glacial feature called an esker and explore different ecosystems along the way

Vocabulary

Glacier

- Landscape
- EskerIgneous
- Metamorphic
- Sedimentary

Quick Facts

Season	Fall: September - November Spring: April - May
Grades	9th - 12th
Program Length	4 hours
Maximum # of Students	80 Students

Standards Correlations

ES.5.5 Create a timeline detailing the processes that have occurred in Indiana to create mostly sedimentary bedrock. Explain how changing sea levels, climate, and glaciation have shaped Indiana geology.

Env.2.7 Differentiate between renewable and nonrenewable resources, and compare and contrast the pros and cons of using nonrenewable resources.

Env.8.3 Recognize and explain that in evolutionary change, the present arises from the materials of the past and in ways that can be explained, such as the formation of soil from rocks and dead organic matter.

See Standards Correlations for Rock Cycle for more academic connections.

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