

Standards-Based Lesson Planning Springfield Schools

Standard(s): Science and Technology/Engineering

Strand #1: Earth and Space

Learning Standard #6: Describe and give examples of ways in which the Earth's surface is built up and torn down by natural processes, including deposition of sediments, rock formation, erosion, and weathering.

Desired Results

Scope and Sequence

Topic: Porter Lake Challenge: Earth's History

Suggested Time Frame: Two day environmental education experience at ECOS (Environmental Center for Our Schools) in Forest Park, Springfield, MA

Essential Questions

- How is the surface of the earth changed over time?
- What are the forces that act on the earth to cause changes?

Content and Skills (Progress Indicators)

- Observe and describe signs of erosion and weathering in local habitats and note seasonal changes.
- Recognize that erosion, weathering, and decomposition are part of the Earth's natural recycling process.
- Explain that constructive forces include volcanic eruptions and deposition of sediments.
- Explain that destructive forces include erosion and weathering.
- Identify the sources of weathering that form soil.

Assessment Evidence

- Students will answer teacher prompted questions to assess their knowledge about terrain features, which they experience while navigating around Porter Lake, e.g. sedimentation, erosion, weathering, succession, decomposition, delta formation.

Learning Activities

- Students will plan a route on their map.
- While hiking, students will adjust their route according to the geographic features they encounter.
- While hiking, students will observe and recognize that weathering, erosion, and decomposition are the source for deposited materials that become deltas.