

Huston-Brumbaugh Nature Center

Environmental Science Outreach STEM Program

Thursday, June 18

Rocks, Soils, & Landforms at HBNC

Introduction to Geology

Students collected and examined soil and sediment samples from four locations around the nature center. At each site, they evaluated three sediment characteristics:

- Grain Size – the relative abundance of clay, silt, sand, gravel, and pebbles.
- Grain Shape – whether grains were angular, subangular, subrounded, or rounded.
- Grain Sorting – whether sediment particles were mostly the same size (well sorted) or a mixture of many sizes (poorly sorted).

By comparing these characteristics among sites, students looked for evidence that glaciers once covered this region of Ohio. Grain size, shape, and sorting are important sedimentary properties that help geologists interpret transport processes and depositional environments.



References & Acknowledgements

A special thank you to **Dr. Andrew Hutsky** for designing and facilitating this hands-on geology investigation. Through his knowledge of sedimentary geology and Ohio's glacial history. Students gained valuable experience analyzing soils and using geological evidence to interpret the Ice Age of HBNC.

*Poster created by Amy Miller. Text assistance provided by Microsoft Copilot (AI); content reviewed and approved by program staff.

Evidence of Glacial Past

The HBNC lies near the southern edge of the Wisconsin glacier that advanced into northeastern Ohio during the Pleistocene Ice Age. Students found several characteristics that are typical of glacial deposits.

- Wide range of grain sizes
- Abundant angular and subangular particles
- Poorly sorted sediments containing mixed grain sizes
- Evidence of rock material, like quartz, that is not naturally found in Ohio

Together, these observations suggest that the soils at the nature center were strongly influenced by glacial deposition. As the glacier advanced and later melted, it left behind sediments that now form the soils, landforms, and habitats observed across the property today. The sediment evidence examined by the students helps reveal how Ice Age processes shaped the modern landscape of northeastern Ohio.

