

GEOLOGY

Tuesdays, September 13- December 13 (no class Oct 11, Nov 22; 12 weeks)

11:15am-12:45pm

Ages 11-14

Students become geologists and paleontologists as we study the structure of Earth and its forces, investigate the physical and chemical properties of rocks and minerals and examine geologic history through the fossil record. All lab costs are included in registration fee.

Instructor: Q Collins, BSc

Location: STEM Lab (suite 21) - Roswell

Course fee: \$220 OR \$20/lab

10% sibling discount

Register for full semester or individual labs

LAB SCHEDULE:

Layers of the Earth - Tuesday, September 13

Students learn about the rock layers of Earth's crust, their composition, characteristics and processes affecting them as they create a model of our planet.

Erosion and Weathering - Tuesday, September 20

We see how Earth's forces have sculpted our landscape by experimenting with the processes of erosion, deposition and weathering.

Minerals - Tuesday, September 27

This week, we learn the difference between rocks and minerals, study and test the physical properties of minerals, and determine how they are classified.

Crystallization - Tuesday, October 4

Students investigate the chemistry of mineral crystallization, crack open geodes to find crystallized minerals and conduct a crystallization experiment.

Sedimentary Rocks - Tuesday, October 18

Today, we study sedimentary rocks and their characteristics, and model how they are formed in nature.

Igneous Rocks - Tuesday, October 25

We explore our igneous rock collection, and learn how they were formed by the cooling of magma from volcanic activity.

Metamorphic Rocks - Tuesday, November 1

In this lab, we investigate how existing rocks metamorphose into a new rock type through heat and pressure.

The Rock Cycle - Tuesday, November 8

We simulate the rock cycle with a heat and pressure experiment to demonstrate how each rock type could transform into a different type of rock.

Rock Collection Identification - Tuesday, November 15

Today, kids show off their own rock collections and use their knowledge of rocks and minerals to try to identify each sample (or they can use samples from our collection).

Fossils - Tuesday, November 29

We investigate the process of fossilization and why some creatures fossilize better than others, as well as identify organisms in our fossil collection.

Paleontology - Tuesday, December 6

Today, we learn the tools and procedures paleontologists use to carefully dig fossils, and create our own fossil dig site that can be excavated later.

Paleontology Dig - Tuesday, December 13

Students conduct a fossil dig by following a mapping and excavation protocol to determine what fossils are buried at their dig site.

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