



Geology Rocks Lab

Virtual and Onsite Experience

Goal: Increase in knowledge of geological phenomena and history.

Objective: Examine the dynamic processes that have shaped Earth's physical structures and their effect on its history and inhabitants.

Rotation Timing

Introduction – 5 minutes

Station (1,2,3, 4) – 10-20 minutes

Conclusion – 5 minutes

*Please note all times are approximate

The program design of the **Geology Rocks Lab** will introduce students to scientific principles, geologic history, and earth system dynamics. The students will be engaged with hands-on, inquiry-based activities that will address key concepts, such as Plate Tectonics, rock and mineral properties, and tsunamis. Our instructors will facilitate each station's content through the 5 E's framework. The stations are connected to Next Generation Science Standards for Middle School. Your students will become terrestrial and marine geologists to examine the complexities of earth science.

Activity Station Overview

Mineral and Rock Identification

Students will compare and classify common mineral and rock samples. They will understand the processes that form these elements.

Plate Movement

Students will determine how long it will take for the Pacific and North American plates to slide past each other and bring the Gulf of California alongside San Francisco.

Tsunami Speed

Students will calculate the speed of the 2004 Indian Ocean tsunami. They will use this information find out how quickly it reached Banda Aceh, Indonesia from the earthquake's epicenter.

Epicenter Triangulation

Students will learn how the process of triangulation can aid in a geologist's determination of an earthquake's epicenter.