



## **Geology Rocks Virtual Lab Information Guide**

Dear participating teachers,

Greetings from the San Diego County Office of Education's Science Outreach Team! We are looking forward to connecting with you live from our Virtual Learning Space for the **Geology Rocks Lab**. Please familiarize yourself with the information detailed in this document. This will ensure an optimal experience before and during the program.

Whether you have participated before or if this is your first program, we hope that that the experience will be academically enriching, relevant, and memorable for your students. Please ensure that you complete a program evaluation. Your feedback will help us continue to provide quality programming for students throughout San Diego County.

### **Please review the list below**

1. Please submit the Program Schedule no later than 10 business days after SDCOE staff confirm your program date. [scienceoutreach@sdcoe.net](mailto:scienceoutreach@sdcoe.net)
2. There are activities and PowerPoints that will prepare your students for the program. They cover key concepts and vocabulary that are integral parts of the program content.
3. The program will be conducted from inside our Virtual Learning Space. We ask that your students are located in a space on campus, which can remain undisturbed during each session.
4. Please plan to connect and have your students ready no later than five minutes before the start of your session. Program sessions are approximately 60 minutes.
5. A maximum of four sessions per day. Please set the schedule with at least 10 minutes between classes. The first session may start no earlier than 8:00am.
6. Your students do not need to be divided into three groups. Our instructor will progress through each station with the entire class.
7. Have your students ready to interact with the instructor. During the facilitation of the activities, our staff will be asking questions. Please have yourself or another staff available to assist in selecting the students to answer the questions and monitoring student behavior. Station worksheets are available for the students to complete along with the instructor.
8. Please complete and submit the Program Receipt no later than two business days after the program. [scienceoutreach@sdcoe.net](mailto:scienceoutreach@sdcoe.net)

The program design of the **Geology Rocks Virtual 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 reach 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.

Please call (858) 290-5986 or email [scienceoutreach@sdcoe.net](mailto:scienceoutreach@sdcoe.net) if you have any questions. We are looking forward to connecting with you soon!

SDCOE's Science Outreach Team