



Splash Science 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. Please familiarize yourself with the information detailed in this document.

The Science Outreach Team is excited to announce and offer a new version of the **Splash Science Lab** for the 2020/2021 school year! Whether you have participated before or if this is your first program, we hope that that this new experience will be academically enriching, relevant, and memorable for your students. We encourage feedback and hope that you can complete the additional program evaluation. This will help us continue to develop an amazing program for students throughout San Diego County.

Please review the list below

1. Please submit the Program Schedule no later than 10 business days after your program date is confirmed by the SDCOE staff. 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. If your program is sponsored by San Diego County or the city of Vista, you are asked to have your students complete the required pre/post-tests. Please complete these pre-tests prior to facilitating any of the provided pre-program activities.
3. All activities will be conducted from inside our Virtual Learning Space. If we are connecting to your school site, 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 5 minutes before the start of your program. Each program session is approximately 60 minutes. There is a maximum of 30 students for each session. A maximum of four sessions can be scheduled per day. Please set the schedule with at least 10 minutes between classes. The first session may start no earlier than 8:30am. The final session may end no later than 2:00pm.
5. Your students do not need to be divided into 3 groups. Our instructor will progress through each station with the entire class.
6. 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 assist in selecting the students to answer the questions and monitoring student behavior. Station worksheets are available for the student to complete along with the instructor.

7. Please complete and submit the Program Receipt no later than 2 business days after the program. scienceoutreach@sdcoe.net

The program design of the ***Splash Science Lab*** will to introduce students to scientific principles, natural systems, and environmental occurrences, specifically those affecting water resources in Southern California. The students will be engaged with hands-on, inquiry-based activities that will address key concepts, such as urban runoff, water conservation, and common pollutants. Our instructors will facilitate each station's content through the 5 E's framework. Stations are connected to Next Generation Science Standards for 4th, 5th, and Middle School.

Your students will become watershed scientists to find out how water pollution is causing significant environmental change within local ecosystems. This program strives to empower them to find solutions to reduce water pollution and become active stewards of the environment.

Activity Station Overview
(You select 3 of the 4 options for your program)

Watershed Model

Students will identify and categorize common contaminants into point source or non-point source pollution. They will determine the origin for these pollutants and add them to the model. Students will assist in the creation of a rain event to move the standing pollution through the watershed. They will learn the differences between our storm drain and sewer systems.

Water Quality

Students will test 4 factors of a water sample from a local source. They will analyze dissolved oxygen, pH, temperature, and salinity in order to determine if they are within their ideal ranges. They will also hypothesize the cause for any shift in range and its possible effect on the biosphere.

Microscope Investigation

Students will identify and count microscopic organisms in both prepared and live samples, to understand the patterns of interaction/relationships between them. They will investigate the effects of common pollutants within a water sample. They will discover which types of organisms are good indicators of pollution.

Life In An Estuary

Students examine the relationships and interdependency of animals within an estuary. They will see how pollution can travel through the food web from smaller organisms to large predators. They will hypothesize how pollution might affect these relationships and alter the balance within the ecosystem.

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

SDCOE's Science Outreach Team