Green Machine 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 *Green Machine 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

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. Minimum requirements for programs sponsored by the County of San Diego are 20 participating students in each of two sessions.

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 3 groups. Our instructor will progress through each station will 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 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.

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

The program design of the **Green Machine** introduces students to scientific principles, natural systems, and environmental occurrences, specifically those affecting food production. The students participate in hands-on, inquiry-based activities that will address key concepts, such as predator/prey relationships, organic vs. inorganic soil, and the water cycle. Our instructors facilitate each station's content through the 5 E's framework. The stations are connected to Next Generation Science Standards for Kindergarten through 3rd Grade.

Activity Station Overview

Integrated Pest Management
Students will learn that insects can have a beneficial, detrimental, or neutral impact on ecosystems. They will examine the relationships between certain species and see how this can be an alternative to chemical pesticides.

Soil Science
By examining and sorting a sample of compost, students understand that soil can be comprised of varying elements. Mineral content, detritus, and living organisms will affect the overall productivity of a soil sample.   This can determine which types are suitable for sustainable plant growth.

Water Cycle
Students will understand how this natural process moves water through urban, wild, and agricultural areas. They will learn the importance of this element in relation to healthy plants.

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