



INSIDE THE OUTDOORS

ORANGE COUNTY DEPARTMENT OF EDUCATION
Educational Services Division
Curriculum, Instruction & Academic Instruction Unit

Legislative and Public Affairs Committee September 12, 2022

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INTRODUCTION

Award-winning environmental education program administered by the Orange County Department of Education.

A unique and hands-on program serving over 120,000 participants per school year.

A leader in hands-on science and social science programs since 1974





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WHAT WE DO

Our mission is to empower students, teachers, parents and the community to explore natural areas and expand their knowledge, understanding, and stewardship of the environment through our Virtual Programs, Field Trips, Traveling Scientist, and Community programs.





The curriculum created for our programs support current California academic standards and allows students to interact with these concepts in a real-world setting.



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PARTNERSHIPS

Professional staff, with the support of local and statewide partners, facilitate meaningful experiences with a consistent focus on service and data-driven outcomes.





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AGE 05

SCIENTISTS OF THE SEWERS



OC San Service Area Middle School



Fatbergs, massive clogs in the sewers, are a menace to public health, the community, and the local environment. Students will investigate to discover the sources of these colossal clogs. Then using criteria and constraints, students will work together to design a solution to prevent fatbergs from clogging the sewers, all while developing an understanding of Orange County's sanitation process and how they can help safeguard the community and environmental health.

Students will learn about the fragile ecosystem of the microorganisms which play a critical role in Orange County's sanitation system. Students will collaborate and investigate a mock problem which will take them upstream from OC SAN as they test the sewer line to discover where the contaminant is originating. Students will then design a method to safeguard the system or create an argument explaining how changing factors can affect populations within an ecosystem.

Students will be walked through the process of the Orange County Sanitation District (OC San) uses to separate our enriched domestic waste water from its trash and valuable biosolids. Students will be presented with an opportunity to test different solutions to reduce the weight and quantity of truck loaded need to transport the biosolids. Students will take their test results and evaluate which solutions will decrease human impact on our local environment and it's natural systems.

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RESOURCES

Pre- and post-visit activities were developed to allow student participation in class or in a distance learning setting.













