



# ANNUAL REPORT



Inside the Outdoors is Administered by the  
Orange County Department of Education

## 2021/2022



ORANGE COUNTY SANITATION DISTRICT

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## Introduction

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For the 2021-2022 school year, Inside the Outdoors provided Virtual Field Trips, Virtual Traveling Scientist programs, digital classroom resources, and digital family resources to continue supporting Orange County students and families. Every live-streamed program presentation was grade level specific, supported California content standards and had the look and feel of a traditional Inside the Outdoors program.



## Elementary School Programs

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Inside the Outdoors provided *Scientists of the Sewers* virtual programs to students while modifying all activities for live-streamed video presentations. Pre- and –post-visit activities were developed to allow student participation in-class or in a distance learning setting.

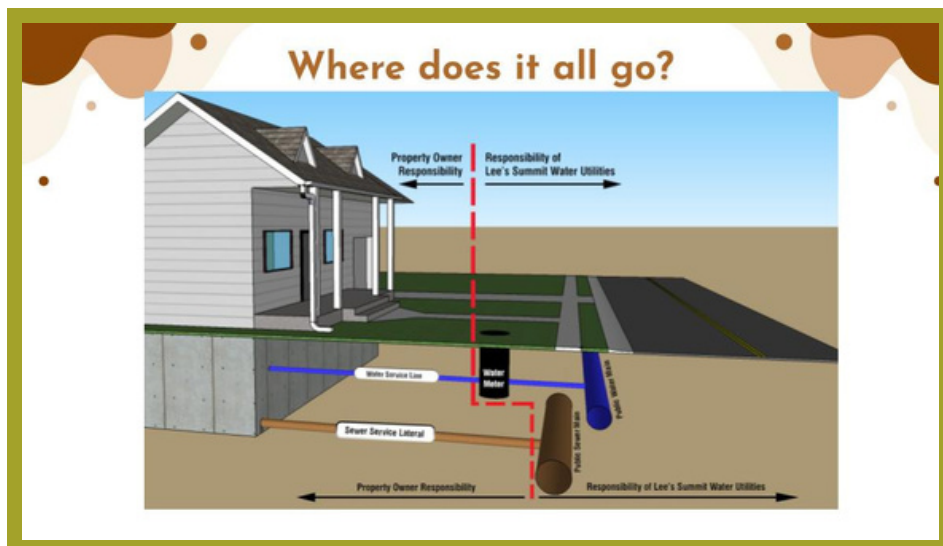
### Virtual Traveling Scientist

*Scientists of the Sewers*

Fifth Grade

NGSS Standards Supported: 5-ESS3-1 & 3-5-ETS1-1




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 community and environmental health.



### Fifth Grade Curriculum

# Elementary School Programs

Student programs were extended through resources like pre- and post-activities and family engagement components.

  <b>Scientists of the Sewers - Pre-Activity</b>  <i>Graphic Organizer</i>		Name _____	
<b>Group 1</b> <i>How a Few Scientists Transformed the Way We Think About Disease</i>	<b>Group 2</b> <i>The History of Toilets</i>		
<b>Group 3</b> <i>Can the Ocean Run Out of Oxygen?</i>	<b>Group 4</b> <i>How Do We Know If Water is Safe to Drink?</i>		
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## [Fifth Grade Pre-Activity](#)

## Middle and High School Programs

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Inside the Outdoors provided *Scientist of the Sewers* virtual and in-person programs to middle school and high school students while modifying all activities for live-streamed video presentations. Pre- and -post-visit activities were developed to allow student participation in-class or in a distance learning setting.

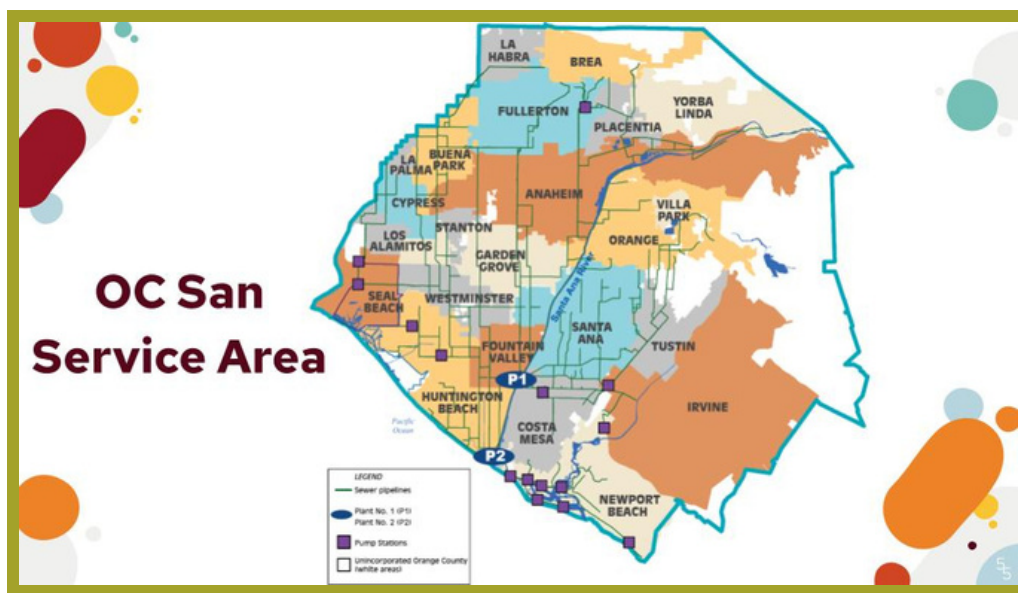
### Traveling Scientist

#### *Scientists of the Sewers*

Middle School

NGSS Performance Expectations Supported: MS-ESS3-3 or MS-LS2-4

Students will learn about the fragile ecosystem of the microorganisms which play a critical role in Orange County sanitation system. Students will collaborate and investigate a mock problem which will take them up stream 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.



### [Middle School Curriculum](#)

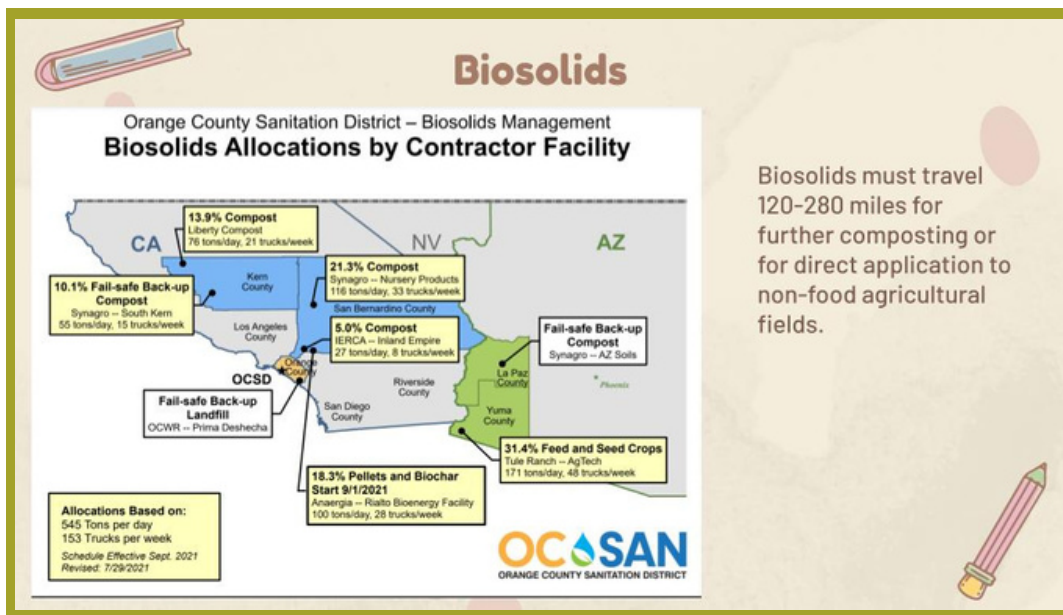
# Middle and High School Programs

## Scientists of the Sewers

High School

NGSS Performance Expectations Supported: HS-LS2-7, HS-ESS3-4

Students will be walked through the process of the Orange County Sanitation District (OC San) uses to separate our enriched domestic waste water from it's 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.



## High School Curriculum

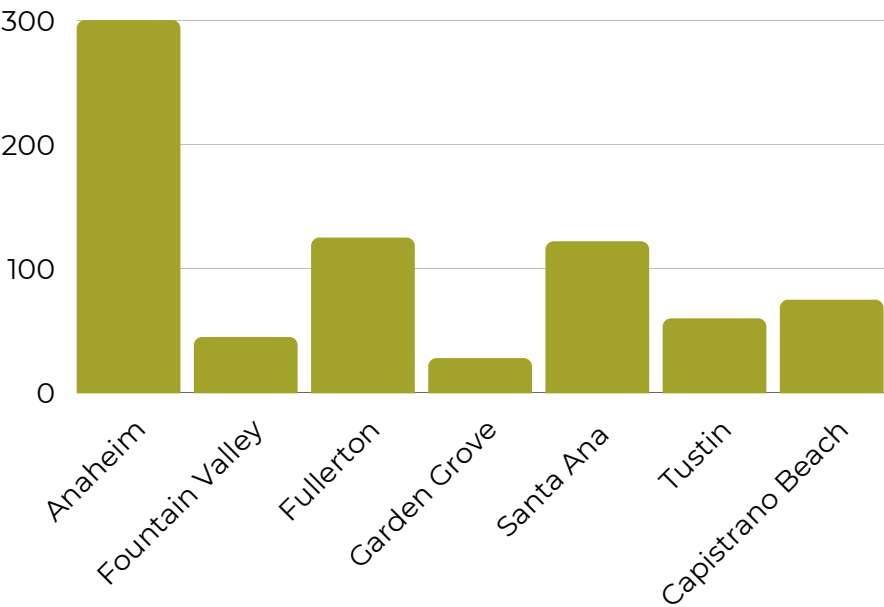
# Student Numbers



## 755 Students Served

## Participating Students by City

Number of participating students and virtual program presentations.



# 755

Total number of students served

# 27

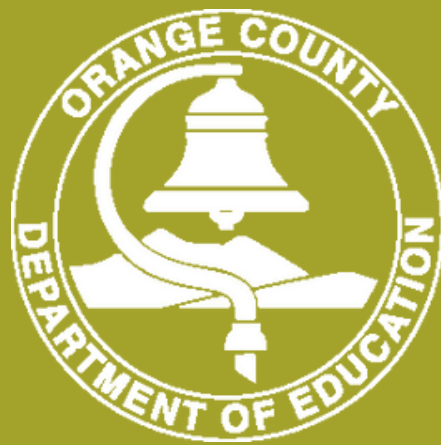
Virtual programs presented

## Participating School Districts

- Santa Ana Unified School District
- Fullerton School District
- Centralia Elementary School District
- Community Home Education Program (OCDE)
- Capistrano Unified School District
- Anaheim Elementary School District
- Ocean View School District
- Magnolia School District



# Thank You



## Contact

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