

COVID-19 Impacts on Education and Engagement

King County
Department of Natural Resources and Parks
Wastewater Treatment Division



MWPAAC
February 24, 2021

Agenda

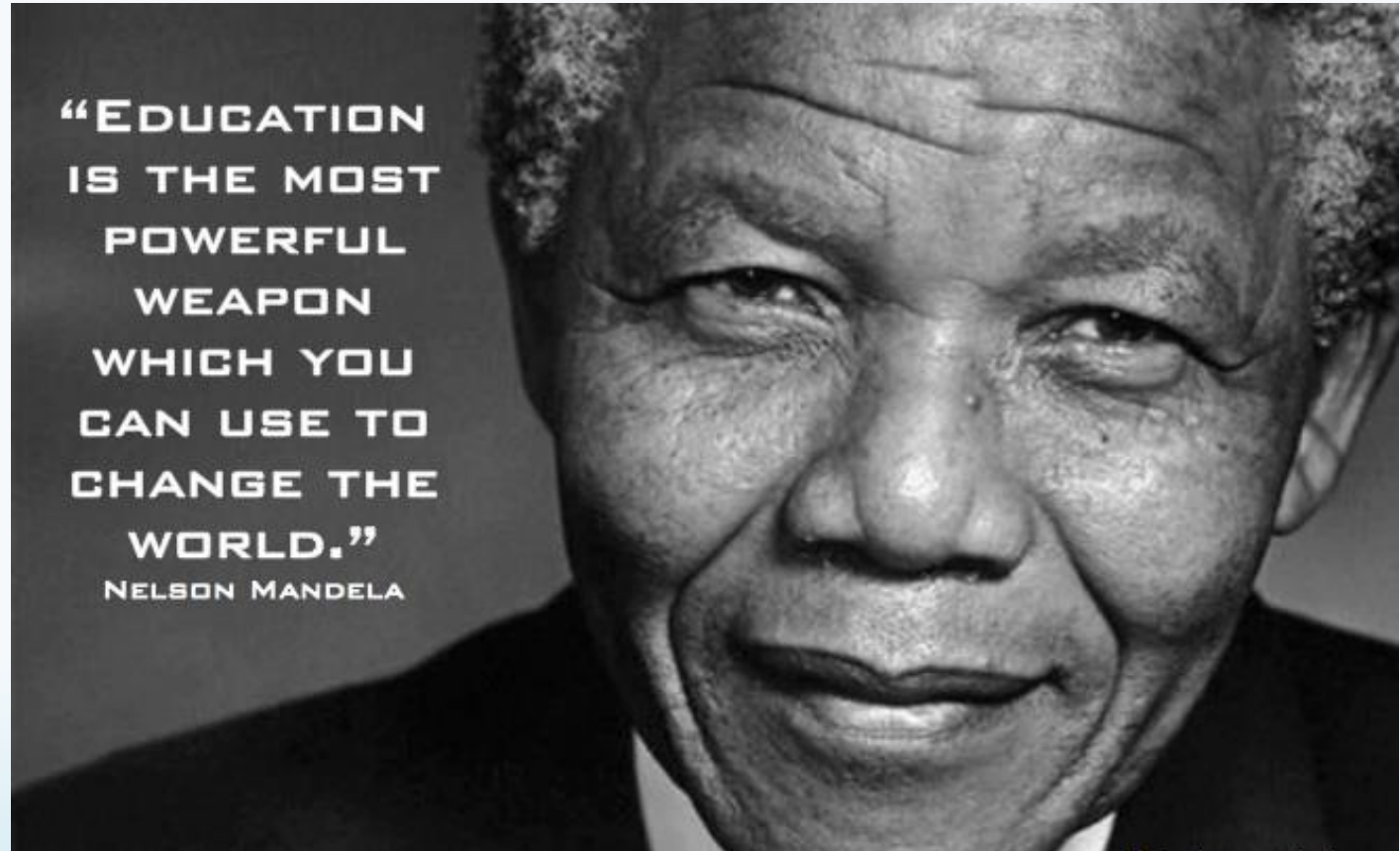
**Covid-19
Shutdown**

**Assess and
Adapt**

**Program
Highlights**

Resources

Questions



Covid-19 Shutdown

- School Field Trip Programs
- Brightwater Rental Events
- In-school programs
- Adult Sustainability Workshops
- Family Programs
- Careers in Clean Water Events
- Treatment Plant Tours
- City Soil Farm
- Teacher Professional Development Workshops



Spring 2020

Adapt
Assess
Pilot

REPEAT!



Careers in Clean Water

WELCOME!

- There will be interpretation at this event. In the control bar, please **select your primary language**, then click “mute original audio”.
- We will be recording this event, but only for our own viewing to make improvements for next time.



Wastewater Treatment Division

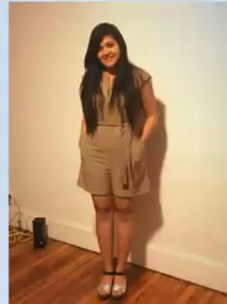
Let's meet the staff!



Samayyah Williams (she/her)
Environmental Engineer



John Conway (he/him)
Planner



Shachi Thakur (she/her)
Energy Engineer



Ann Grothe (she/her)
Capital Project Manager



Carol Umukobwa (she/her)
Project/Program Manager



Sustainable Yard Care Workshops

Jumpstart Your Yard - Tips for designing a sustainable landscape and building healthy soil



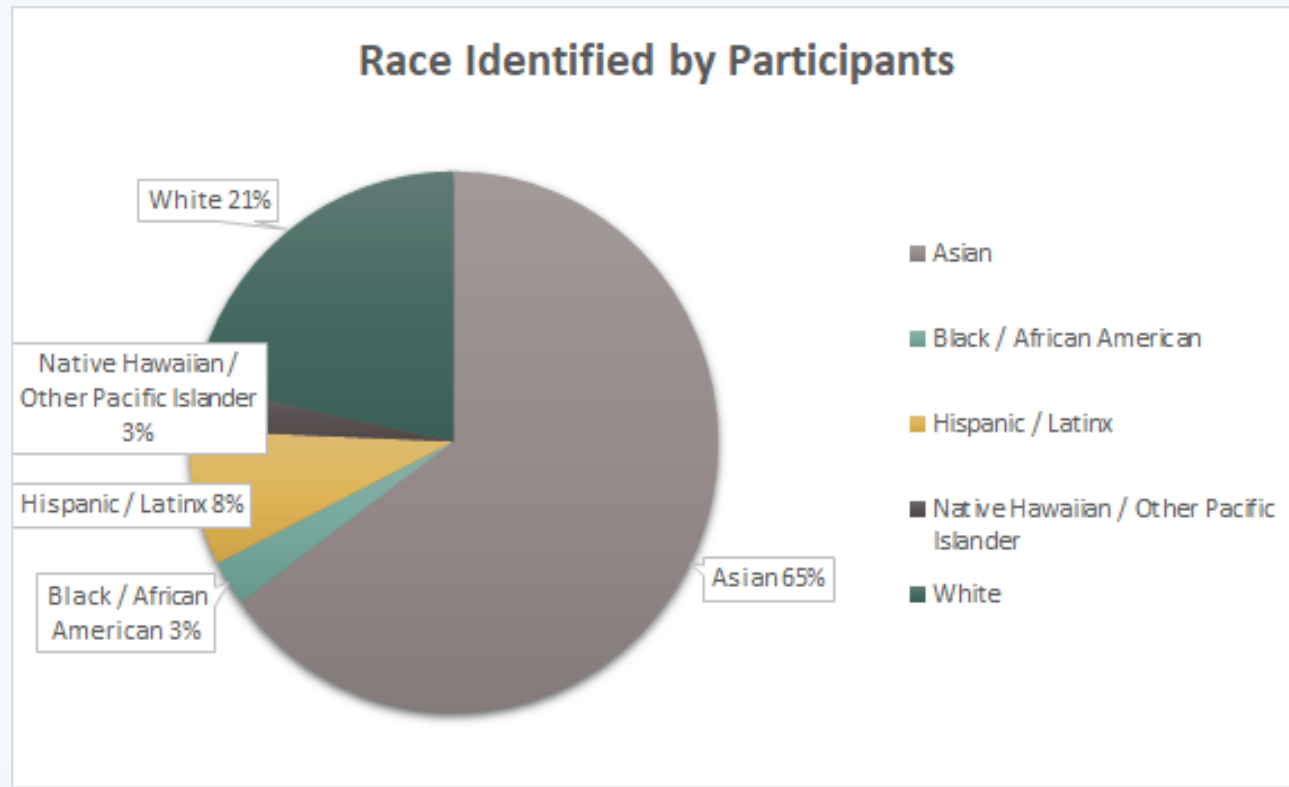
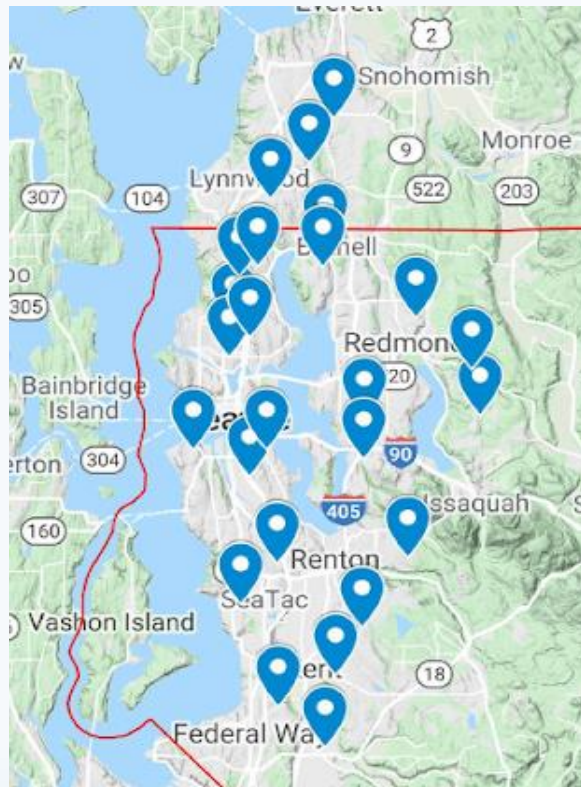
What's your vision?



Summer Teen Intern Program



Equity and Social Justice & Demographics

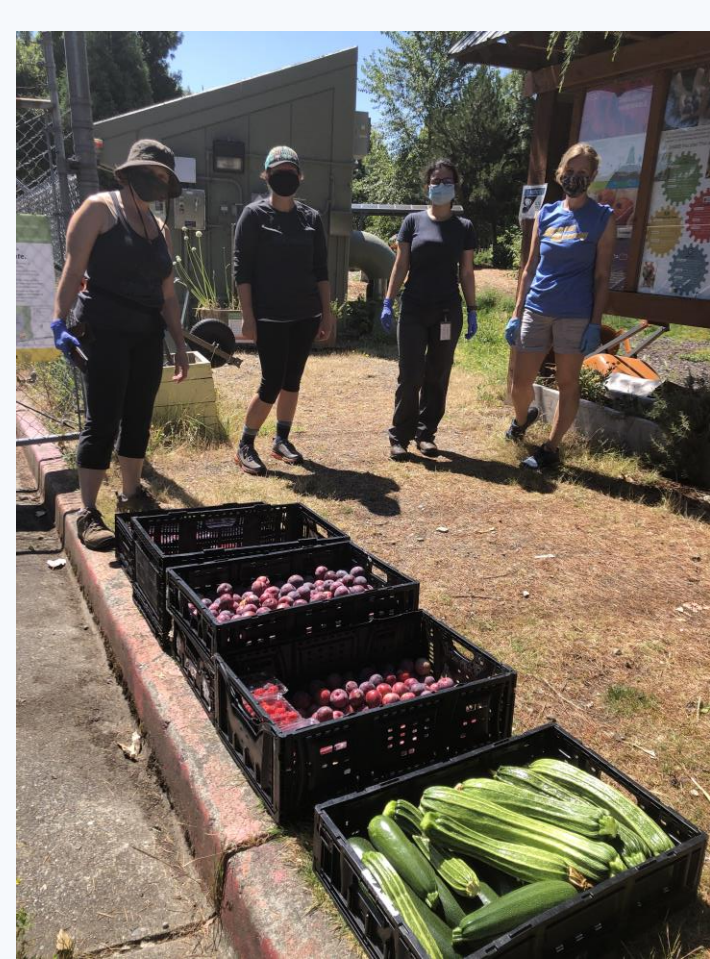


Throughout the month-long program, 35-40 youth joined every session. **The number of youth engaging in the program consistently and the post-program evaluation feedback has proven that meaningful engagement of youth is possible in an online format!**

City Soil Farm

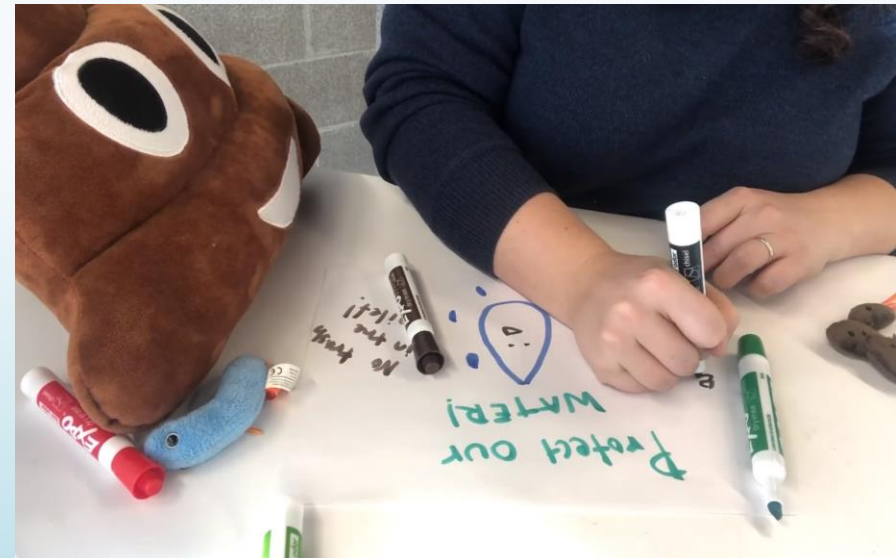
“Even with the cancellation of education programs, and loss of volunteers, CitySoil farm was able to donate 3,762 lbs of fresh, culturally relevant produce to the White Center Food Bank” – Charity Villines, WTD Farm Coordinator

Made possible with help from WTD staff and partner staff – Dirt Corps, King Conservation District and White Center Food Bank



Virtual School Programs 2020-2021

- STEM and NGSS-aligned for 3rd – 12th grade students
- Wastewater and stormwater series lessons
- LIVE synchronous lessons
- Hands-on demonstrations and modeling, observations, and extension activities
- Connect to each students' interests, identities, and home and family experiences



September 2020 – February 2021

Outputs

Elementary 403 lessons = 10,075 students

Middle 44 lessons = 1084 students

High School 38 lessons = 1140 students

Outcomes

Students

6% + increase Knowledge (What should be put down drains)

11% + increase Attitude (Taking responsibility for our water)

16% + increase Behavior (Flushing behaviors)

Teachers

Ranked programs 9 out of 10 for overall program experience

90% strongly agreed that programs supported current curriculum

100% strongly agreed that programs were engaging for students

100% strongly agreed with format (live, multiple sessions, technology)

100% strongly agreed programs were culturally relevant & delivered equitably


Resources

Education resources - King County

kingcounty.gov/services/environment/wastewater/education/resources.aspx

Home » Services » Environment » Wastewater services » Education programs » Education resources

Education resources



Visit [Software Help](#) if you have trouble viewing or downloading documents.

Education resources

- Video lessons and virtual tours +
- Curriculum +
- Power Point presentations +
- School programs and field trips +
- Maps and online mapping tools +
- Posters and graphics +

Information for... Do more online Get help Español

3:10 PM 2/18/2021



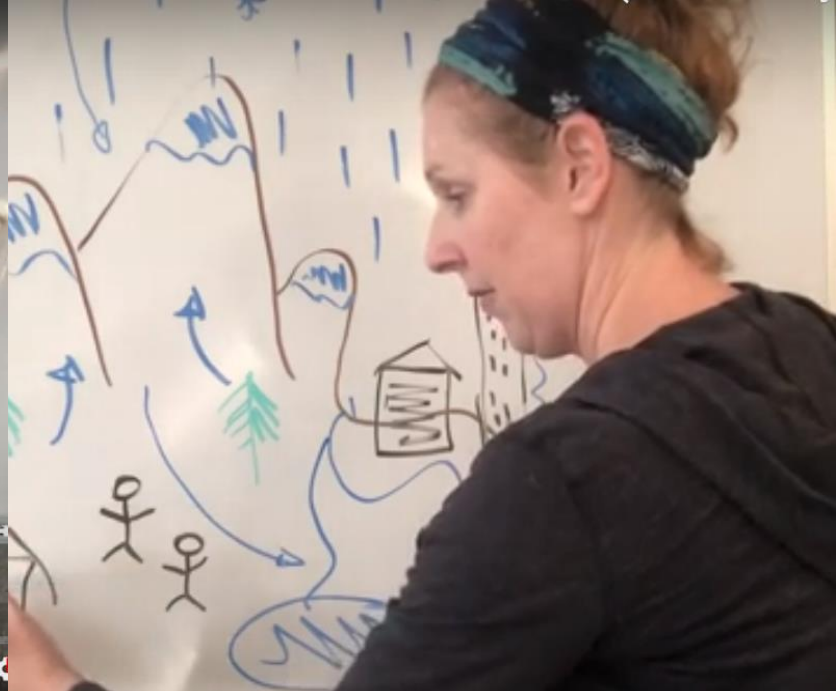
SCUM SCRAPPERS



THIS IS WHAT THE BOTTOM OF THE TANK LOOKS LIKE

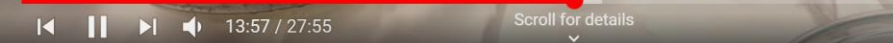


Wastewater Engineers: Lesson 4- Wastewater Stewards (Elementary)



Wastewater Engineers: Lesson 2- Dirty Water Challenge (Elementary)

HOW WILL YOU USE THE SUPPLIES TO CLEAN YOUR WATER?



Lesson 1- What is Wastewater?

Overview: Have you ever wondered what happens to the water you use every day? In this lesson, students will be introduced to this hidden system running beneath our school, streets and homes. Students will trace the “human water cycle” and learn how they are connected to the Puget Sound. They will be introduced to the concept of “Wastewater” and learn why wastewater treatment is important.

Grade Level: 4–6th grade

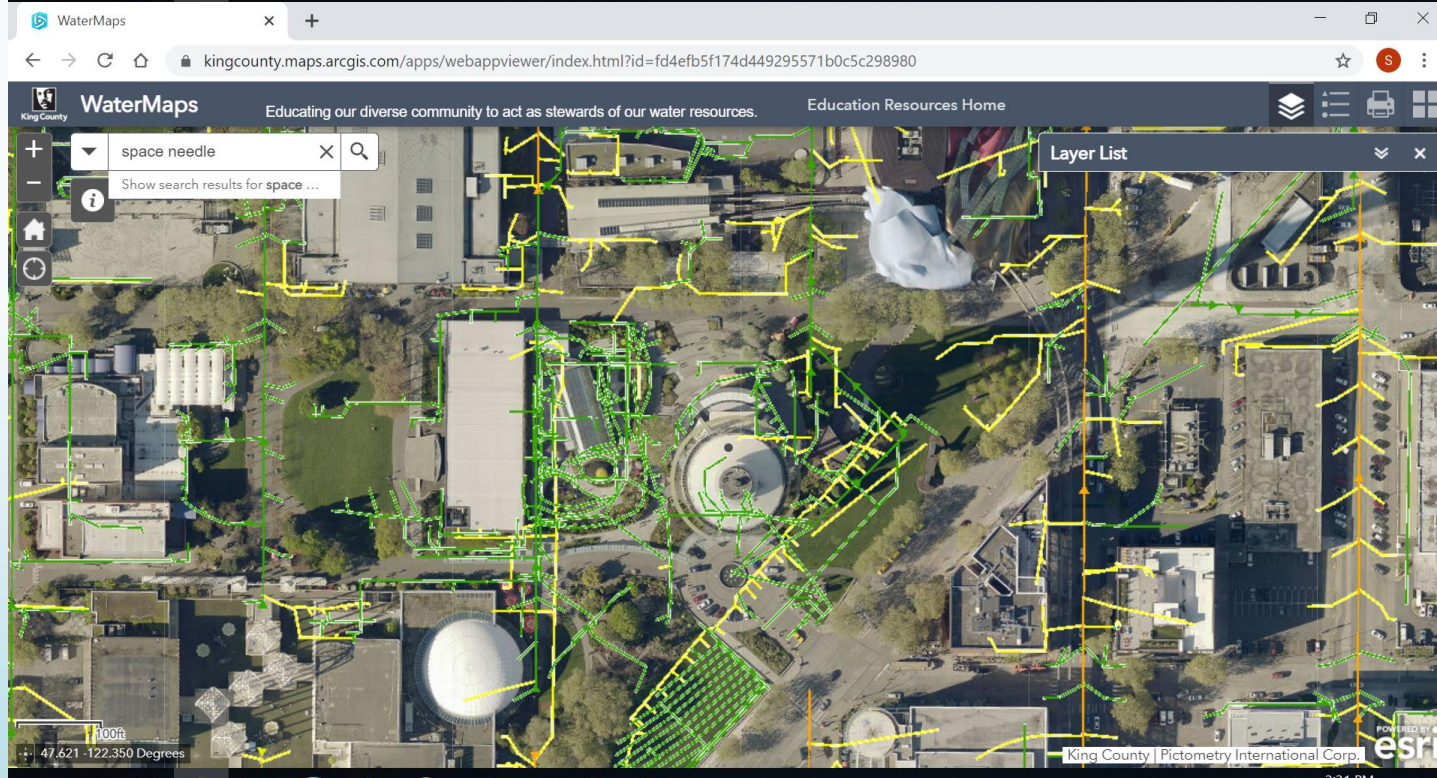
Time: 45 minutes

Supplies:

- Lesson 1 Visuals Aids
- Marker/Pencil
- Blank paper or printed Wastewater Engineers journal
- Gallon jug of water

Virtual Teaching:

There are many ways to interact with students on virtual teaching platforms; each class has their own norms and expectations. Some classes rely entirely on the chat box to communicate, which means that you will need to read the chat box as you teach and interact with the answers. You may need to remind students to type their answers into the chat box every time you ask a question. We’ve found that accepting answers verbally (calling on students with raised physical or virtual hands) AND through the chat box is a good way to engage all the students. We’ve also found success asking the classroom teacher to moderate the chat box and read aloud answers to us.



WaterMaps Educating our diverse community to act as stewards of our water resources. Education Resources Home

space needle

Show search results for space ...

Layer List

King County | Pictometry International Corp. esri

2021 and Beyond...

Virtual School Programs (continue through June)

Adult Sustainability Workshops (continue through April)

Careers in Clean Water (March-May)

CitySoil Farm Work Parties (February-August)

Summer Teen Intern Program (July-August)

<https://www.kingcounty.gov/services/environment/wastewater/education.aspx>

FALL 2021?

Questions



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Wastewater Treatment Division, King County
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Participant Feedback - Summer Teen Program

“This program definitely changed my perspective of the importance and complexity of the current water system. On top of the overall benefit of gaining so much amazing information about water, I also increased my public speaking skills during this workshop. I feel more connected to the environment now that I have participated in this program.” - Yubi Mamiya

"Every day was filled with insight and passion, and each lesson was focused and clear. The most memorable topic for me was water systems; I was able to track where my water came from, treatments used, the people it supplies, the cost, and where it flows from the drains of my house." - Julia Ollestad

“This program helped emphasize how environmentalism is so integrated with social justice issues, especially in recognizing the impacts of settlers on indigenous land.” - Katrina Li

“The best part of this experience is seeing so many teens wanting to make a change like me and working together to develop our own plans on how to make that change for our future. I’ve developed more confidence, understanding, knowledge, and so much more from this program.” - Chloe Trujillo

Teacher Feedback - Virtual School Programs

"It gives kids a chance to go on a "virtual field trip" and consider a real problem in their community, then design solutions."

"Students learned so much, were engaged, and were motivated to take action based on their learning to make the world a better place."

"This program increased students' awareness of water as an important natural resource and helped them understand how its use and misuse can affect our ecosystems. This program encouraged students to notice details around them and reinforced that learning

"It gives the students a way to make connections with what they are experiencing in their own lives and gives them ideas that they could engineer solutions to problems in their backyards."

"Experts teaching expert lessons are always a positive thing- and the instructors are amazing."

Student Feedback - Virtual High School Programs

“I appreciated that the class encouraged me to think about the water systems in my neighborhood. There's a storm drain on my home's property that I've had to dig sediment out of with a shovel when it starts flooding the street in heavy rains, but I've honestly never given where the pipes go after that a lot of thought.”

“I thought that getting time to look at our own neighborhoods using the interactive map was very interesting.”

“This is information that will be useful throughout my whole life and with this information I can help the environment. Unlike math I don't need to find the inverse of a function in my day to day life.”

“It was super informative about the area I live in, and everything I could do to help - even the smallest actions can have a significant impact on the environment.”

“I liked learning about how the water cycle impacted our community, learning about the unique jobs, and that it was a hands-on class.”