CITY OF LYNNWOOD & EDMONDS SCHOOL DISTRICT

LYNNWOOD
WASHINGTON

MAYOR'S CHALLENGE

2023 - 2024

Edmonds School District

Challenge closes: 3:00pm
Friday, March 29, 2024

This is an exciting opportunity to use STEM and the Arts to partner with the City of Lynnwood to explore and propose solutions to authentic issues in the community. Edmonds school district students in Grades 4-12 are invited tackle these challenges.

For information, visit: www.cte/edmonds.wednet.edu

Will you accept the challenge to eternal glory?

CTE
Edmonds SD Career and Technical Education

City of Lynnwood
19100 44th Ave W
Lynnwood WA 98036
425.670.5400

Edmonds School District
20420 68th Ave. W
Lynnwood WA 98036
425.431.7000 Español: 425.431.1304

These challenges are open to individuals, teams or whole classes 4th - 12th grade. All projects have city mentors assigned to help guide and provide information you may need. Projects will be displayed during the STEM Showcase in April at Mountlake Terrace High School. Challengers will present their projects to their mentors during the event.

1. Select the project(s) you wish to enter. All projects are open to all grades. Submissions can be an individual, team and/or submit as a whole class.
2. Complete the registration form: **http://bit.ly/42rmn5s.** Projects submitted as a class project may be registered under the teacher. Teams only need to submit one registration with all participant names.
3. You will receive an email from Derek Fada, City of Lynnwood Environmental & Surface Water Supervisor (also a project mentor). He will help connect you to your mentors. Contact your mentors directly for any guidance and questions.

Project Submission:

Submission style to best showcase the research and results will be determined by the students. There is no requirement to have a display board. A video format can be emailed to Vanessa Edwards. The team name (including student names), school and grade level will need to be written on the back of each submission or in the opening of the video. Questions? Contact: Vanessa Edwards, CTE (435) 431-7322, edwardsv926@edmonds.wednet.edu

Final project submissions are due by 3:00pm on Friday, March 29, 2024 at the Edmonds Service Center (School District Office) 20420 68th Ave. W Lynnwood WA 98036

Attention to: Vanessa Edwards, CTE (Career and Technical Education)

Scan QR to Register

The Challenges

Stormwater Outreach and/or Impervious Surface Study

Mentors: Kayla Grattan, Stormwater Technician &
Derek Fada, Environmental & Surface Water Supervisor

Issue: As rain falls on our city, it flows to our storm water system over impervious surfaces, collecting pollutants along the way. This leads to a polluted stream of water that enters our local waterways.

Project Description: Stormwater is the most prevalent pollutant in Puget Sound, putting important local species like salmon and orcas at risk. Many people are not aware of this problem, or solutions for reducing storm water pollution. How can we educate others about this problem, or eliminate impervious surfaces in our city to keep polluted water out of the storm water system?

Potential Deliverables:

- Narrative or illustrative educational signage, posters, pamphlets, etc.
- Community pledges
- Impervious surface study at your school or a City facility
- Stormwater reduction project
- Awareness events

The Challenges

Pedestrian Safety Awareness Campaign

Mentors: Paul Coffelt, Traffic & IT Engineer & Nathan MacDonald, Manager of Communications & Public Affairs

Issue: Pedestrian vs vehicle incidents are on the rise.

Project Description: As Lynnwood becomes more walkable, it is important to educate residents and visitors on the importance of keeping yourself safe while walking around the city. The cause of accidents ranges from distractions from looking at your phone while walking to not obeying traffic signs. The intention of this project is to create an awareness campaign to help educate walkers on what they can do to keep themselves safe while out and about.

Potential Deliverables:

- Poster presentation on pedestrian safety
- Video or audio advertisement

Water Leak Detection Program

Mentors: Jared Bond, Deputy Public Works Director of Utilities and Operations & Nick Stokes, Utilities Supervisor

Issue: Our drinking water system can be fragile, and will occasionally spring leaks. These leaks can be in water main lines, or service lines. Being able to accurately locate / detect water leaks underground from the surface is critical in order to repair the leak.

Project Description: This project is to help the City locate water leaks in the most efficient manner possible. There are numerous possible ways to detect water leaks from the surface, some are more effective than others. This project should identify and evaluate the various possible methods of leak detection (including emerging technology), the accuracy of these methods, and the cost to use these methods. Other factors to consider could include pros / cons; can these methods be done by City staff or would outside help (or consultants) be needed; variable accuracy depending on location (i.e. water line under a street vs grass); etc.

Potential Deliverables:

- A cost / benefit evaluation of the various methods of water leak detection, with a ranked recommendation for the City to implement.

Animal Population Study

Mentors: Eric Peterson, Parks and Recreation Superintendent &
Kayla Grattan, Environmental Specialist

Issue: Lynnwood does not have much research on the size of populations of wildlife that inhabit or visit our parks.

Project Description: Understanding local wildlife and their population sizes that reside in our parks can help with future planning and maintenance. Wildlife populations can be monitored for many different reasons, but having an understanding of what types and how much wildlife are in our city parks will be helpful for protection and pest treatment for future maintenance and construction activities.

Potential Deliverables:

- Map identifying observed wildlife and estimated population size at our parks.
- A narrative of best practices recommended to ensure the safety of wildlife at our parks and control recommendations for any invasive species.

Stormwater Weir/Flow Control Design

Mentors: Levi Moore, Public Works Civil Engineer &
Derek Fada, Environmental and Surface Water Supervisor

Issue: Flooding along the Scriber Creek Basin (52nd Ave W and Hwy 99 to Scriber Lake and 196th St SW)

Project Description: Homes located along Scriber Creek in the vicinity of 52nd Ave W and Hwy 99 to Scriber Lake and 196th St SW, routinely flood in heavy storm events. The creek and detention facilities need to be investigated to determine the amount of storm water that the creek can hold. The detention facilities need to be analyzed to determine if modifications can be made to reduce or eliminate the downstream flooding.

Potential Deliverables:

A design report that discusses the effects, capacities, and solutions to the problem. This could include drawings of possible design solution elements.