

Gunderson Summer Environmental Camp Overview

As part of the Urban League of Portland's Summer Youth Employment Program High School students and young adults will participate in a 2 day science program designed to promote awareness of, and interest in science as a career path.

Students will learn in a small group setting through interactive, hands-on activities in a manufacturing business setting. During this session students will learn about the environmental requirements of a manufacturing company. The program will be hosted at Gunderson Industries.



Students will become acquainted with the safety requirements of industrial industries including: safety equipment (i.e. hard hats, safety glasses, and hearing protection) appropriate work clothing, and how to wear equipment properly. Students will tour the whole environmental manufacturing work site, and engage in discussions and activities involving manufacturing, welding, and the natural habitats at Gunderson and on the Willamette River. Students will participate in activities on the riverbanks of the Willamette River, and learn to identify Salmon, resident fish, insects, and birds that live in that environment. Other objectives of this camp experience include educating and exposing students to environmentally important aspects of river based manufacturing companies with a focus on the riverbank, eco-roofs (habitat roofs), and an overview of eco-roofs and their benefits, identification of other eco-roofs in Portland, including the kinds of people and work related to making these eco-roofs.





Students will be presented with an overview of projects at Gunderson, including videos of installation processes, pictures of the plants, and the status of eco roofs on the site. Hands on activities will include: research on habitats, science experiments, value measurements, plants and insects used as measures of habitat value, native plants and their identification, as well as insect identification.

Program Curriculum will Include:

The program will feature discussions on the importance of water quality in the Willamette River and potential impacts on it. Students will learn:

- Willamette River water quality issues
- How industrial and other activities can impact water quality in the river
 - Tire wear
 - Oil and grease
 - Paint material
 - Welding processes
- How water quality is addressed
 - Monitoring
 - Tracking improvement and making improvements
- Innovative water quality treatments at Gunderson
 - State-of-the-art vacuum sweeper truck operation
 - New treatment system



Short tours of storm water systems and hands-on measurement of water quality

- Tour of storm water treatment systems
- Introduction to digital pH and turbidity meters
- Learn how to calibrate meters
- Take water samples
- Write sampling field data sheets

When students return to the “classroom” and identify insects they will learn to:

- Enter data into spreadsheet on computer
- Generate graph
- Compare to other results
- Check-in on what was covered the day before

Discuss environmental issues at Gunderson

- Air Emissions
- Solid waste disposal and recycling
- Historical contamination issues

Overview of the life cycle of steel at the site

- How steel comes in at the site
- Steel movement and how it is changed onsite
- How scrap steel comes out of the process
- How the scrap steel and other wastes are kept separate

This 2-day component of the Urban League of Portland's Summer Youth Employment Program is a great introduction to manufacturing and environmental careers.