Sustainability Ambassadors Presents

CLEAN WATER FUTURE

July 20-22, 9:00-12:00 | 9 STEM Clock Hours | Zoom interactive

PBL Curriculum Design Lab for Secondary Teachers ***and…***
2050 Workout for Student Ambassadors and invited peers

REGISTER TODAY

Problem Statement

What are the most effective solutions across sectors, systems, and scales for managing our local water systems? What role can students play in designing and amplifying these solutions to ensure a clean water future?

Why you should attend…

- **You expect water to come out of the tap when you turn it on.**
- **You expect your toilet to flush, be treated, and return to the ecosystem. (but how?)**
- **You love it when your students are authentically engaged.**
- **You love identifying real-world contexts for meeting academic standards.**
- **You are personally fascinated by intersectional challenges like this one.**
- **You value a clean water future.**

About the Lab

Singapore leads the world in integrated water management systems. 80 years ago, they were a poor developing nation. **Las Vegas** is America's most water efficient city. **Atlanta** was just a couple months from completely running out of water.

How efficient and reliable is the water infrastructure in our region? How do we deal with increasing population and decreasing snowpack? What happens to our water supply lines and wastewater pipes when the big earthquake comes? Who manages all of this infrastructure that we totally take for granted? How do we pay for this privilege? Is the system equitable?

In this Lab we will explore, build, and refine the most intriguing, problem-based, place-based learning opportunities for applying sustainable systems design at **four scales** - Household, Neighborhood, City, Bioregion, and through **five systems lenses** - Equitable Outcomes, Engineering Design, Economic Development, Ecosystem Services, and Educating for Sustainability.

We all drink water. We all flush the toilet. We all contribute to polluted stormwater runoff.

Authentic problem-solving in the classroom, where **rigor meets relevance**, immerses students in a systems approach to water management. This includes an understanding of the interdependent relationships among three natural systems (Science!), three infrastructure systems (Engineering!), and three social systems which provide the context for awareness, behavior, and decision making. (Social Studies!)

Entry Points for PBL Curriculum across all Academic Subjects

Natural Systems	**Climate and weather** **Water cycle** **Watershed / ecosystem integrity**
Infrastructure Systems	**Drinking water supply** **Wastewater treatment** **Stormwater management**
Social Systems	**Cultural / Historical context** **Political context** **Economic context**

PRACTICE **the fundamentals of problem-based, place-based learning**
ANALYZE **opportunities for integrating water management systems**
APPLY **systems thinking to identify solutions, track impact, report to stakeholders**
COACH **student Impact Projects aligned with local water management goals**
DESIGN **lessons for application in your classroom**
EXPLORE **career profiles of people who are working on solving this problem**

Associated Standards and Frameworks

- OSPI - Environmental Sustainability Standards
- NGSS - High School Human Sustainability Standards
- OSPI - Social Studies Standards for Civics, Economics, Geography, History,
- College, Career, and Civic Life (C3) Framework for Social Studies
- Common Core State Standards - English Language Arts/Literacy and Mathematics

Ready to Register?

What is the 2050 Workout?

Student leaders participate in the PBL Lab along with teachers, but through a parallel, youth-led track focused on a fascinating thought experiment, ***"What would it be like to achieve 100% sustainability in our communities by the year 2050?"*** Students self-organize in research, facilitation, and presentation teams to prepare for the **2050 Update** on August 26, our annual livestream event attracting thousands of viewers from across the nation. Student Ambassadors, invited peers, and our team of Sustainable Systems Coaches facilitate a different focus associated with each of the summer PBL Labs. In exploring one system in depth, the intersectionality among systems is revealed with a special emphasis on equity outcomes and climate change action. How fast can we generate the best solutions? What are the prototypes and tipping points already in play? What would it actually look like if we succeed?

Funder Acknowledgement. Thank you!

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