



Teacher Workshop Soil, Water, and Agriculture

Highlights:

- *PDE3 - 3 credit option- \$150 registration reimbursed with completed portfolio
- *Hosted at 3 sites on Oahu - all of which are open to student field experiences
- *Standards-based, experiential lessons connected to NGSS and Common Core
- *Student field trip opportunities
- *All participants will become certified Project Learning Tree educators and have access Curricula and grant funds

General Learner Objectives:

- Understand farming from multiple perspectives
- Understand how water systems and infrastructure work on Oahu and how these systems impact agriculture
- Understand different types of genetic engineering and explore how it impacts daily life
- Develop relationships with partners who engage students in

Day 1 - October 10, 2017 Kahumana Organic Farm

- Kahumana Organic Farm tour: Eggs, vegetable crops, and community center.
- Soil and Water activities connecting from forest to faucet: invasive species, watershed management, and agriculture

Guest Speakers: Makana Kaha'ulelio and Rachel LaDrig

Day 2 - October 11, 2017 - DuPont Pioneer, Wailua

- Activities: The history of Biotechnology, [Artificial Selection](#), [Gene Insertion](#), risk & benefit analysis, and extracting a DNA strand
- Tour of DuPont Pioneer - GoFarm plots, sunflower production and seed corn

Guest Speakers: Michelle Obermeier-Starke and Jessie Radovich

Day 3 - October 12, 2017 - Halawa Xeriscape Garden

- Explore Hawaii's water system and strategies for water conservation through engineering and best practices with the Board of Water Supply, Department of Facilities Maintenance and the Department of Health.
- Halawa shaft tour

Guest Speakers: Diane Moses, Tonya Ketza, and Daniel Chang

Receive : Two PLT [secondary modules](#) aligned to National Content standards
Extensive access to field experiences in agriculture and water systems on Oahu
Partnership opportunities with community leaders

Facilitators:

Sandy Webb - Mililani High School, Science Resource Teacher - sandywebb2016@gmail.com

Sam Vaughs - Mililani High School, Science Teacher - ssvaughs@gmail.com

Makana Kaha'ulelio - Hawaii Project Learning Tree, State Coordinator - HawaiiPLT@gmail.com

Main Contact: Michelle Gorham - West Oahu SWCD, Manager of Partnerships & Education - 808.729.1676 WestOahuSWCD@gmail.com

[Register here \(24 person cap\): https://agriculturepde3workshop.eventbrite.com](https://agriculturepde3workshop.eventbrite.com)

* More detailed agenda coming soon.

For PDE3 Portfolio

ACTIONS REQUIRED:

To officially register for this course with the DOE, you must complete three steps:

- 1) On PDE3, add yourself to the 'Wait List' for this section
- 2) Go to <https://www.eventbrite.com/e/fall-pilina-workshop-agriculture-soil-and-water-tickets-36621057569>
- 3) Complete the online payment

Once you complete the online payment, HEEA will move you from the 'Wait List' to 'Registered' on PDE3.

REFUND/CANCELLATION POLICY: If you need to cancel your registration for this course once you have paid, please remember that full refunds will only be given up to 7 calendar days **PRIOR** to the Start Date of the course.

Learning Results Portfolio checklist:

- ✓ A mini-unit (minimum of 3 lesson plans) utilizing place-based and environmental education curriculum aligned with HCPS III science benchmarks and/or CCSS and/or NGSS.
- ✓ Assessments that target HCPS III science benchmarks and/or CCSS and/or NGSS for each of the 3 lesson plans.
- ✓ Rubrics/performance criteria for each benchmark assessment used.
- ✓ 3 samples of student evidence for each of the 3 lesson plans created, for a total of 9 samples of student evidence.
 - ✓ Student evidence collected should represent a variety of proficiency areas.
 - ✓ Teacher feedback should be included on each of these exhibits.
- ✓ Captions for each piece of evidence submitted.
- ✓ A total of 8 teacher reflections are required:
 - ✓ Three workshop/class reflections
 - ✓ One field experience reflection that includes at least two quotes from students from the field experience.
 - ✓ Three lesson reflections (One for each lesson created).
 - ✓ Final culminating reflection
- ✓ Pre and Post Evaluations