

# *Engage Youth, Inspire Learning Through Culturally Responsive, Outdoor Education!*

**WASA Small Schools Conference  
March 20, 2023, Wenatchee**



**Lucy DaFoe, Principal, Neah Bay School**



**Kathryn Kurtz, Executive Director**



In partnership with the Cape Flattery Communities, is to ensure that each student be given the opportunity to gain the knowledge, skills and self esteem necessary to become a contributing member of society.



PEI promotes scientific literacy and civic engagement, by empowering people to make balanced, well-informed decisions for just and sustainable communities

# Honoring the Original Stewards of the Land

## News Release

March 8, 2023

### Prized Stretch of the Okanogan River Conserved and Ancestral Lands Returned to Colville Tribes

**OKANOGAN COUNTY, Washington**—Last week, Western Rivers Conservancy (WRC), the Confederated Tribes of the Colville Reservation and the Washington Department of Fish and Wildlife (WDFW) permanently protected two miles of the Okanogan River and a key piece of one of the state's most important wildlife corridors by conserving McLoughlin Falls Ranch.

The 727-acre ranch lies within one of the most scenic and historic reaches of the Okanogan River. Located roughly 30 miles south of the Canada-US border, the property is defined by towering stands of ponderosa pine, grassy benches above the river and dramatic, glacier carved cliffs that rise like sagebrush-covered staircases along the meandering Okanogan.

WRC purchased McLoughlin Falls Ranch in 2022 and held the property while pulling together the funding and partnerships needed to permanently protect it. On March 3, WRC conveyed the southern portion of the property to WDFW and the northern portion to the Colville Tribes. This unique outcome delivers a three-way win, conserving critical habitat for fish and wildlife, returning ancestral lands to the Colville Tribes, and providing new recreational access to a popular reach of the Okanogan River.



We acknowledge indigenous sovereignty, self determination and stewardship of the land and waters, past, present and future.

We commit to work with Tribes to establish trust and respect in our relationships and to support actions based on the current priorities and traditional knowledge of the Tribes -to ensure a more just and equitable future.

*The Twelve Bands compose the Confederated Tribes of the Colville Reservation:  
Chelan, Chief Joseph Band of Nez Perce, Colville, Entiat, Lakes, Methow, Moses-  
Columbia, Nespelem, Okanogan, Palus, San Poil, Wenatchi*

*Total Size: 1.4 Million Acres (2,100 Square Miles), Tribal Enrollment Total: 9,290*



# *Who is in the room?*

Name, district

Why did you become an administrator for a school system?

When it comes to outdoor learning do you

1. Need to be convinced, need to convince a school board?
2. Want to think about taking next steps







# Cape Flattery School District 401

Clallam Bay

K-12 115

Neah Bay

K-12 380

Total 495 Students



# School History

Neah Bay School

Makah Indian Reservation

Boarding School Era

Time when not kids in the village

5 Acres

Incredible support for the students





# Small School Challenges

K-12 Music Teacher

7 years 5 administrators

Returned 21 years later

Most electives had been absorbed

Lacking Student Engagement

Attendance challenges

Low test scores



# Neah Bay Culturally Rich

Beautiful Culture

Maintained Culture

Revitalization, Recovery

Pacific Ocean, Straits of Juan de Fuca, National Marine Life Sanctuary

Tribal Resources

Makah Fisheries, Makah Forestry, Natural Resources, Makah  
Traditional Food

Sovereignty Program, Makah Culture and Research Center



# Barriers

State line

The many philosophies of previous administrations

No risks, glass ceilings

Classroom, Classroom, Classroom

It felt like school was something we were doing to students





# Culturally Responsive Teaching

Makah Language

Identified and defined Cultural Arts

Beading

Weaving

Carving

Traditional Plants

Traditional Foods



# Culturally Responsive Teaching cont.

Food preservation

Food preparation

Hunting, fishing, gathering

Song and Dance

Opportunities to make drums, regalia



# Makah Culture and Research Center

Started with local resources, local people (Covid)

First Peoples' Language, Culture and Oral Traditions Certification

Language

Cultural Arts

Certified

4 additional Makah Language Teachers

3 Cultural Arts





# Funding

OSPI

ESSR Since Time Immemorial Tribally Developed Grant (25k)

PEI

Environmental Literacy Grant (24k)

OSPI iGrant

Outdoor Education Grant (33k)

Region 16

Fish Hatchery (40k)



# COVID - 19





# Ozette Reservation and the Ozette Triangle Loop Trail





# Garbage, data collection, building endurance





# Makah Food Sovereignty Program





# Processing Elk





# Traditional Foods and Preparation - Knife Skills Class





# Meaningful Connections and Opportunities



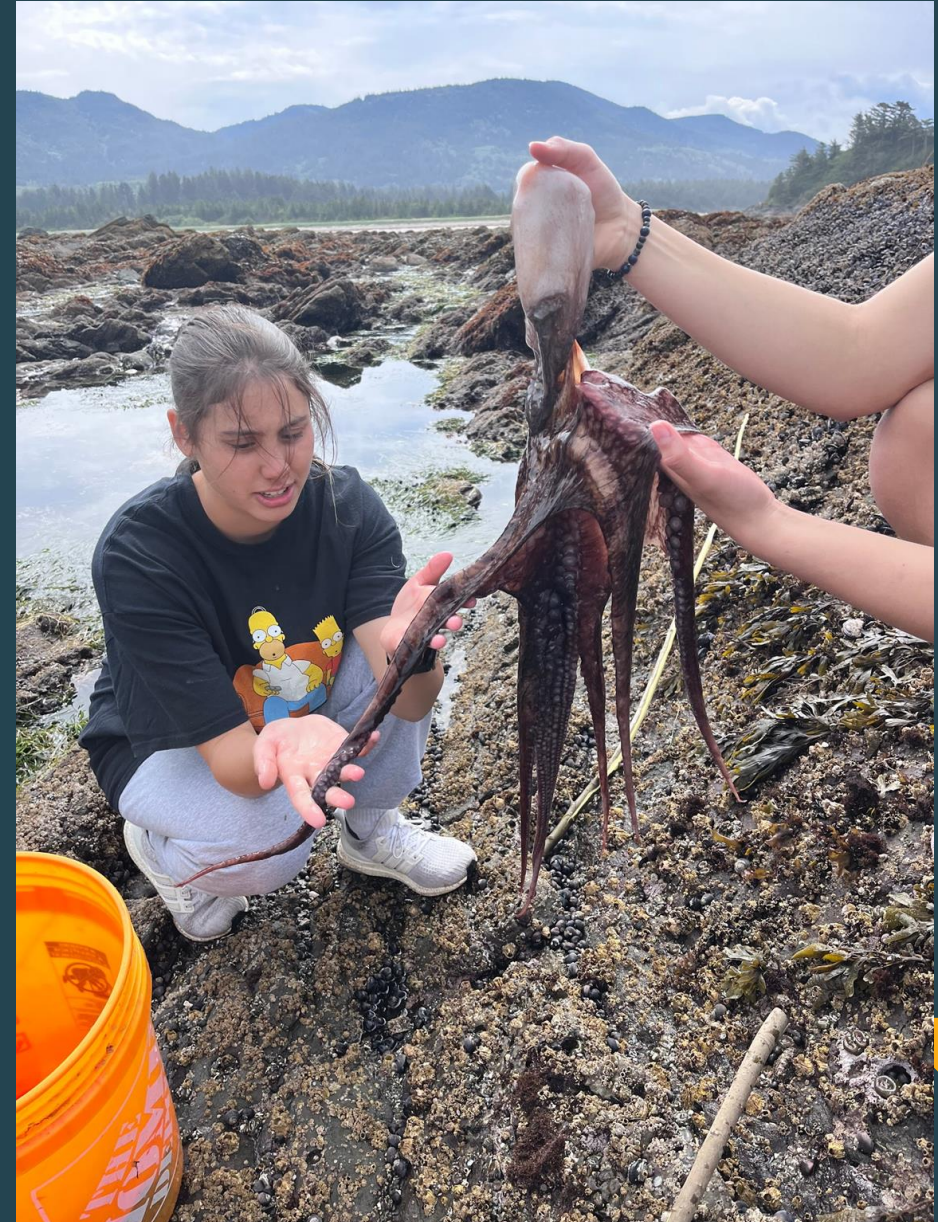


# Meaningful Connections Cont.



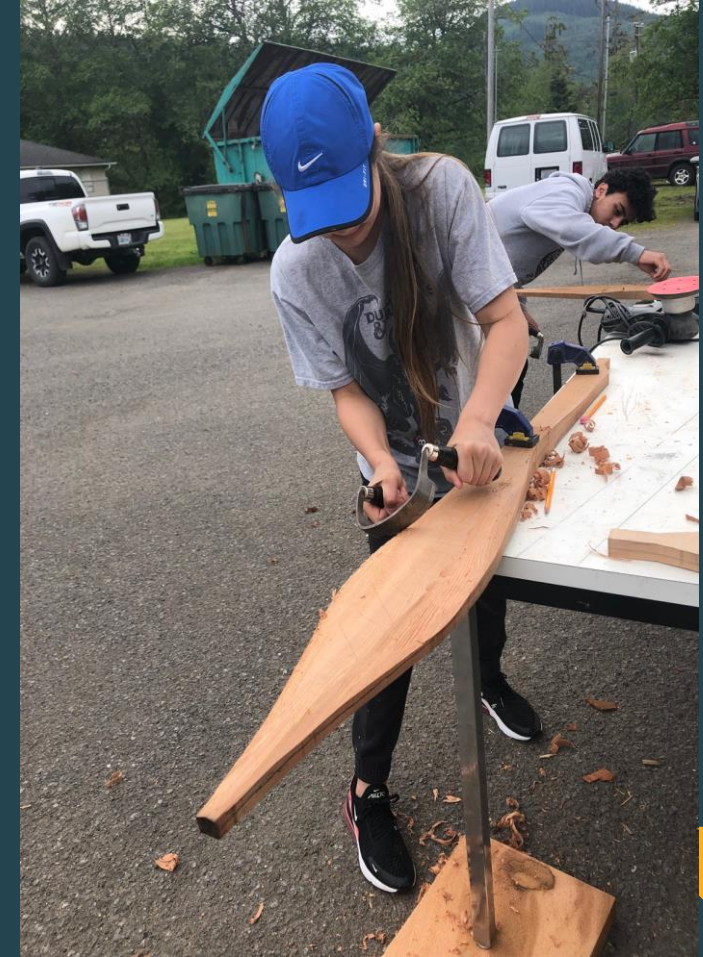


# Low Tide - The Table is Set





# Makah Forestry and Olympic National Park





# Carving Classes





# Stripping Cedar Bark - Seasonal Lessons



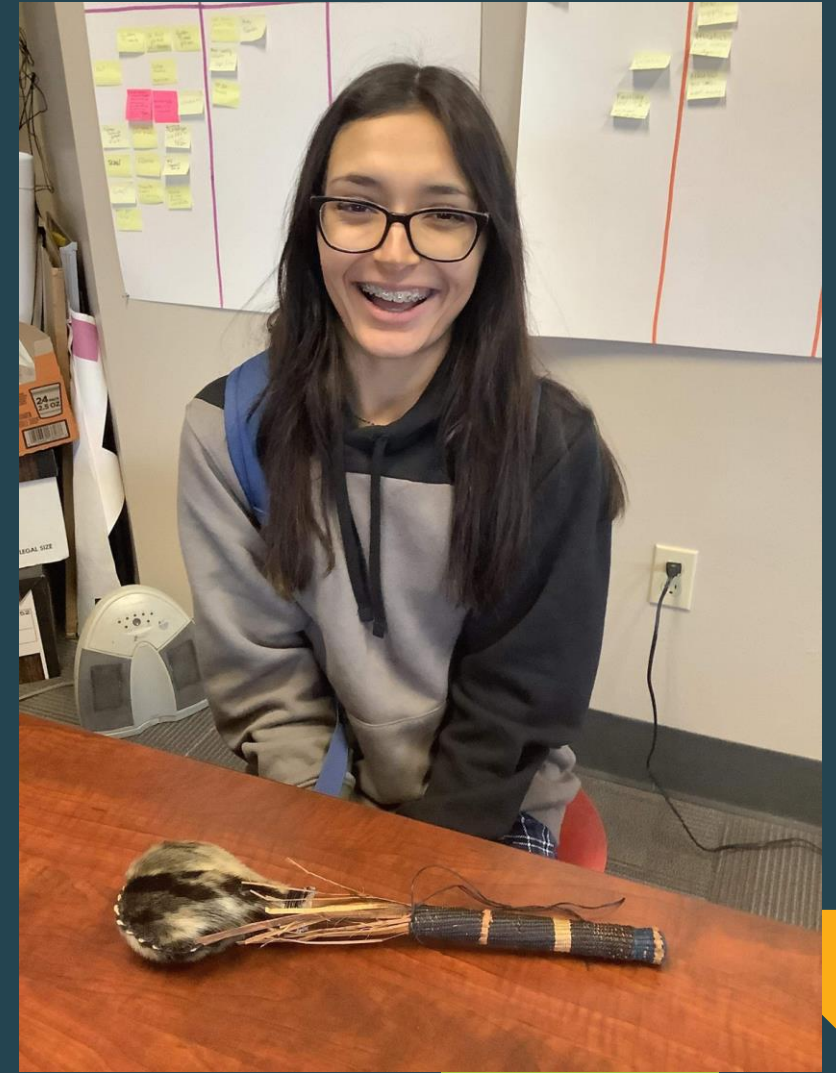


# Weaving with cedar bark





# Weaving as a Cultural Art - VAPA





# Swim Shady Fish Hatchery





# Swim Shady Fish Hatchery



# Swim Shady Hatchery

## Shocking Salmon Eggs





# First Peoples' Language, Culture and Oral Tradition





# First Peoples' Language, Culture and Oral Tradition





# Clubs to Classes





# Beading





# Drum Making





# Song and Dance





# Song and Dance - Cultural Pride and Empowerment





# Salmon





# Traditional Foods - Kippered Fish





# School and Community Smokehouses



# Lessons of the Canoe





# Cougar



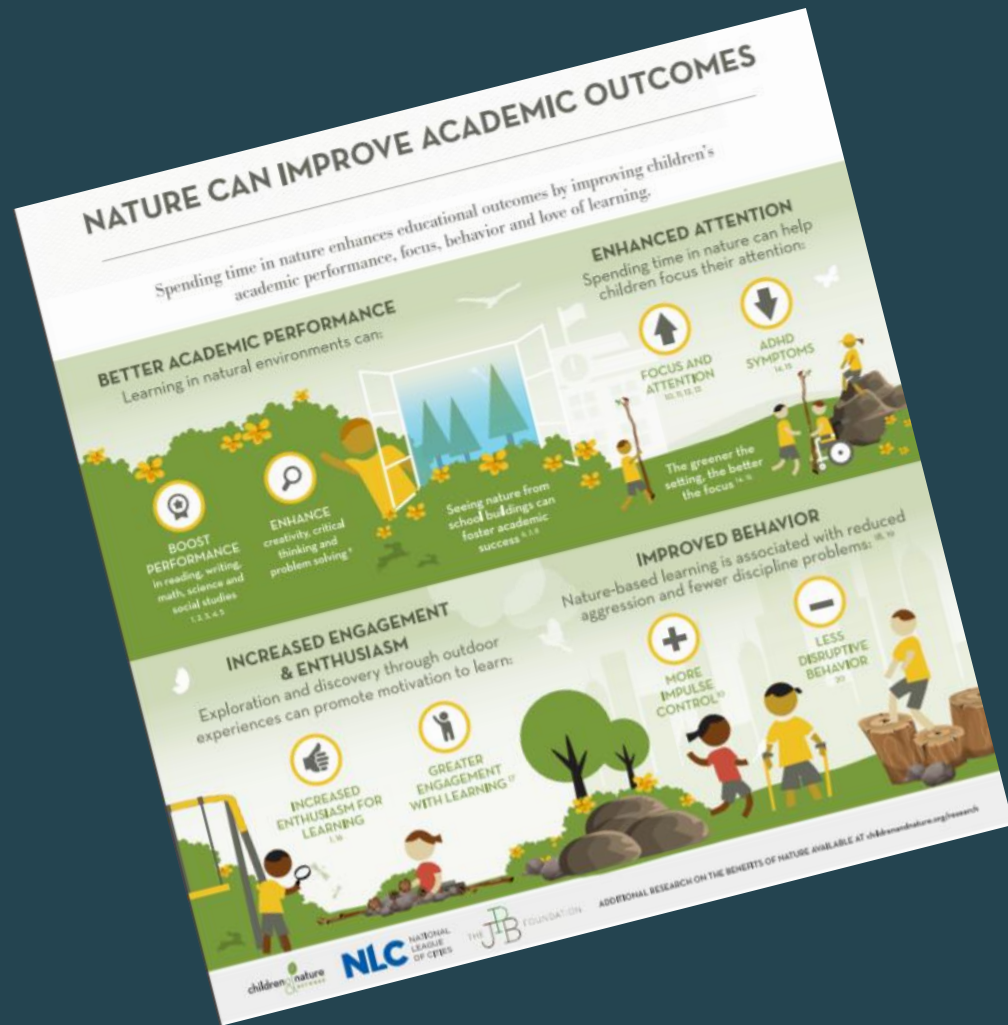


# Questions?



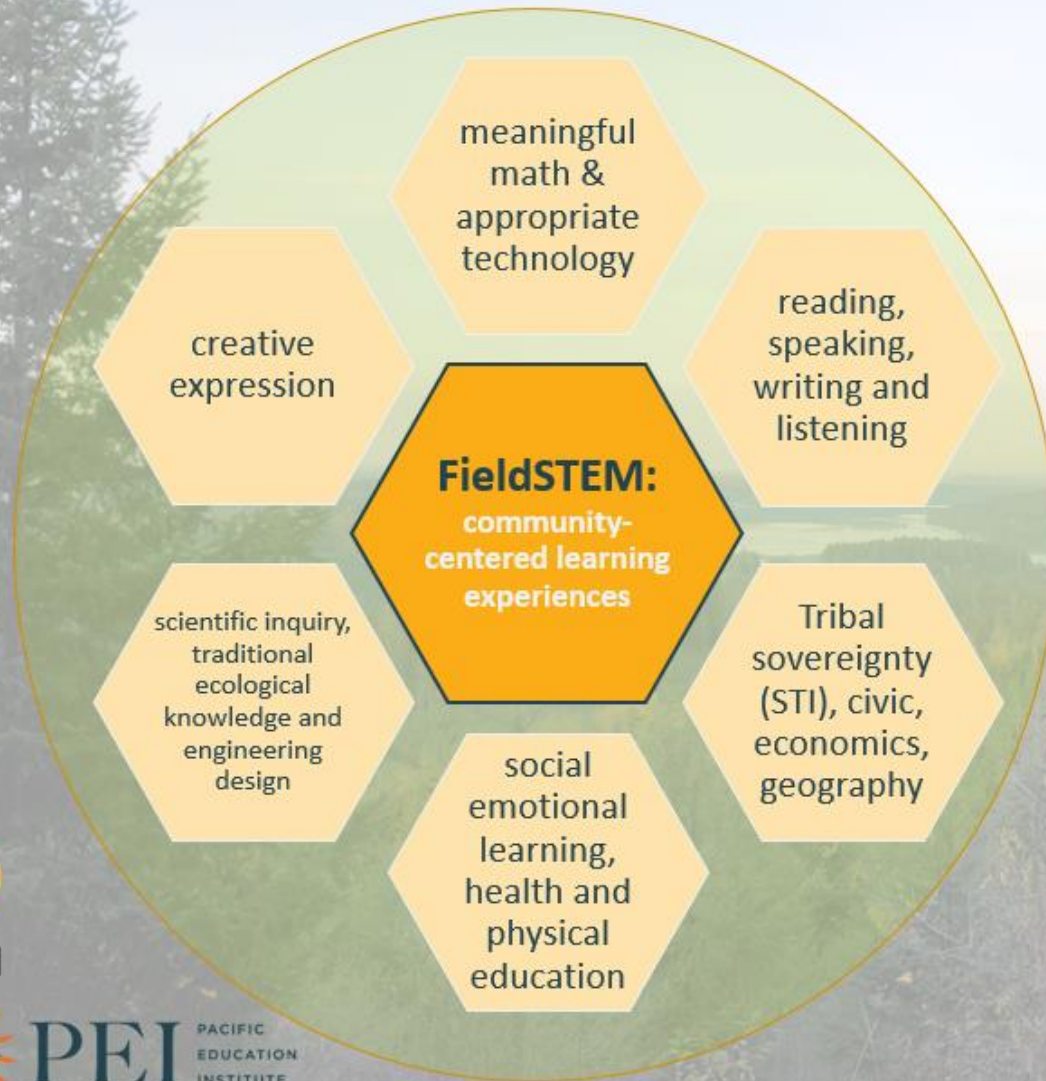


# The benefits of outdoor learning



- 1) Take 3 minutes to look through the graphic and think about some of the teachers and students in your district.
- 2) How can the information here guide next steps for your district?
- 3) Find two people in the room you don't know well and share. Each person 1 minute

# FieldSTEM®: An Integrated Learning Model



## High Impact Field Experiences:

District curriculum includes outdoor, place-based experiences

## District Leadership Support:

Work with district and building administrators, teachers, paraeducators and students to lead implementation

## Community Collaborators:

Addressing authentic questions, problems, issues, or opportunities with local employers

What do we want each and every student to know and be able to do when they graduate from high school?

## Sectors – Career Pathways:

- Agriculture
- Forestry
- Renewable Energy
- Conservation
- Environmental Science
- Environmental Education



OSPI

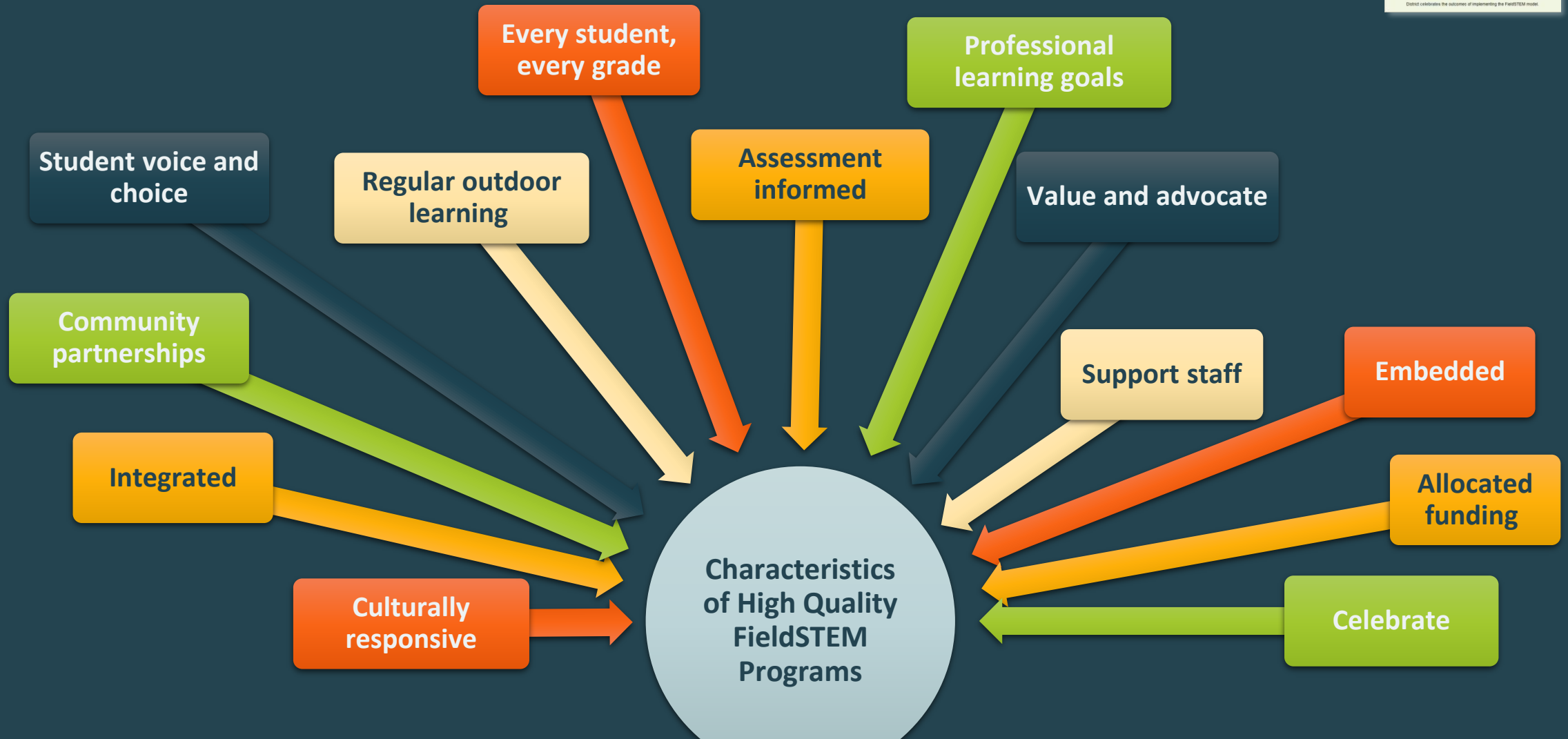


PEI  
PACIFIC  
EDUCATION  
INSTITUTE



# Characteristics of a high quality FieldSTEM program

Characteristics of High Quality FieldSTEM® Programs
Approach to learning equitably centers culturally responsive, accessible and inclusive practices.
Student activities integrate learning to meet standards from multiple subject areas.
Student learning is co-created with community partners to address authentic questions, problems, issues, and opportunities.
Classroom structure gives students choice in the approach they take to demonstrate learning and actively supports student voice in decision making processes.
Students regularly experience outdoor learning.
FieldSTEM experiences are found in the scope and sequence for every grade level.
District coassessment and evaluation data from FieldSTEM programs is used for continuous improvement for students, educators, and administrators.
District sets professional learning goals to increase capacity of educators and administrators to implement high quality FieldSTEM programs.
District leadership values and advocates for a systemic FieldSTEM program.
District identifies and supports staff to lead and maintain FieldSTEM implementation.
The District FieldSTEM plan of action is embedded in the district improvement planning process.
District allocates and tracks the funding to support FieldSTEM implementation.
District celebrates the outcomes of implementing the FieldSTEM model.







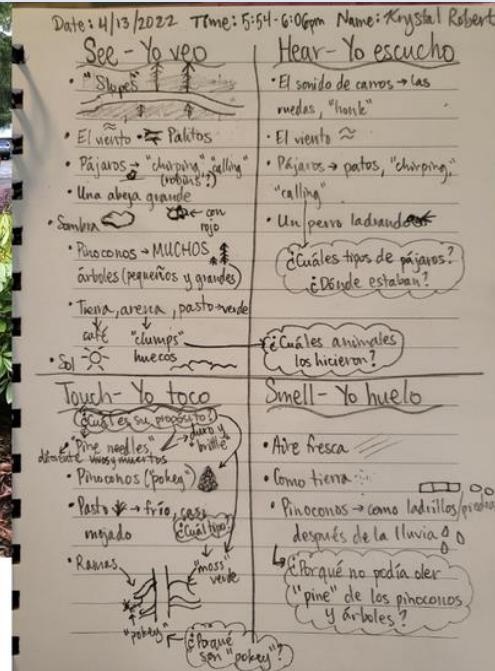
# IMPLEMENTING FIELDSTEM LEARNING ACROSS PK-12

## Multicultural Program

- Support bilingual educators to engage their students in environmental and sustainability education
- Professional development for bilingual educators to implement FieldSTEM® in Spanish
- Dual language resources
- Connections to community partners who can support bilingual outdoor education.
- Consultation with community partners to strengthen their bilingual science education programs.



Un ejemplo

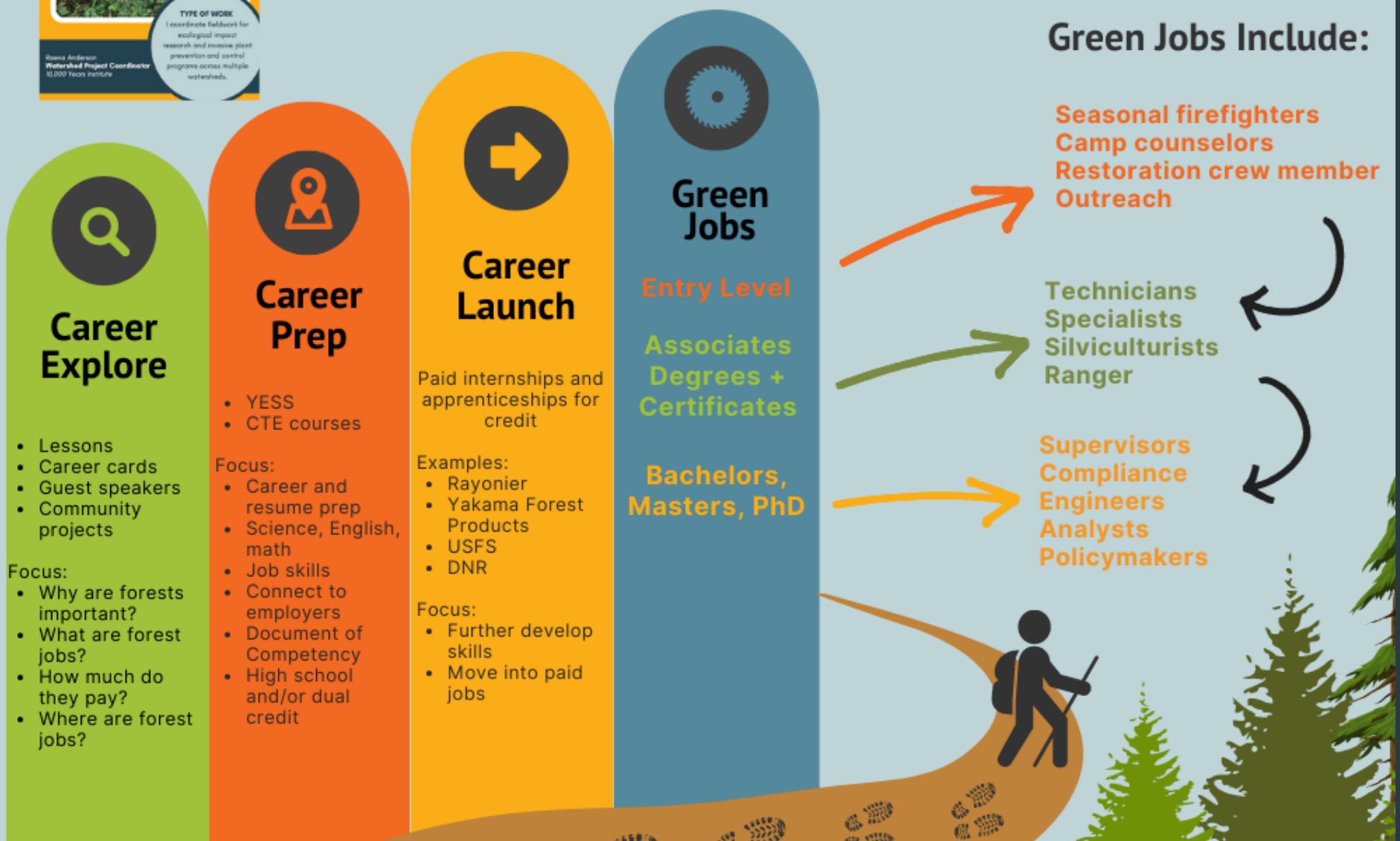


Lourdes Flores,  
Multicultural Coordinator  
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“Esta clase me ayudo con ideas para poder usarlas en mi futuro con mis propios estudiantes. Y creo que las lecciones dan muchas ideas en como extender las lecciones para convertirlo en una unidad de investigacion.”



# PATHWAYS TO Green Careers





# FieldSTEM at the District Level



<https://www.youtube.com/watch?v=HyLEwe25Fks>



**Kristin Edlund, Director of Teaching and Learning**  
**Tiffany Ingham, K-5 Science Facilitator**




# PEI Staff to support your work

Facilitators, consultants, mentors

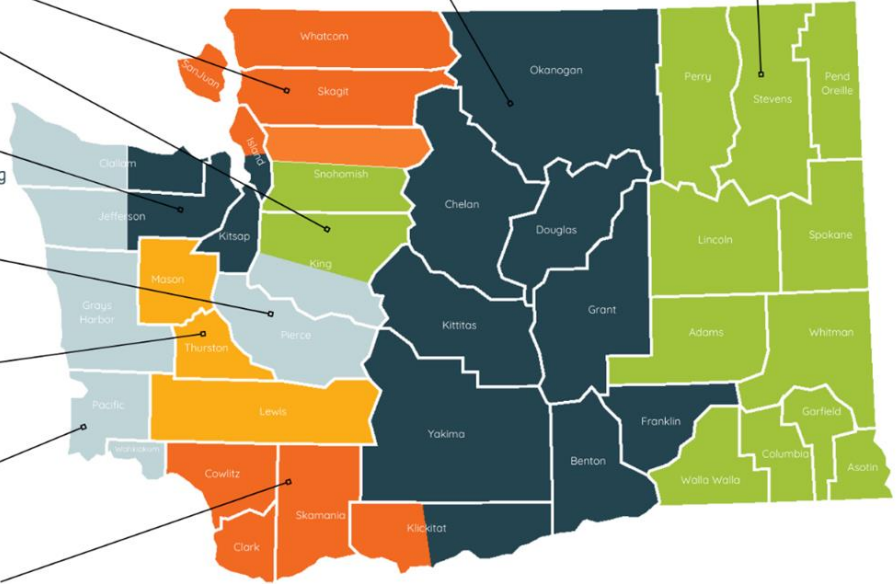
Knowledgeable, experienced, passionate, empathetic

Meets districts, schools and teachers where they *are* and supports *their* goals

Strive to create systemic and sustained FieldSTEM implementation



## PEI Program Staff



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# Professional Learning Opportunities

PK-12, preservice, formal, nonformal

Virtual, blended, in-person, asynchronous, learning communities

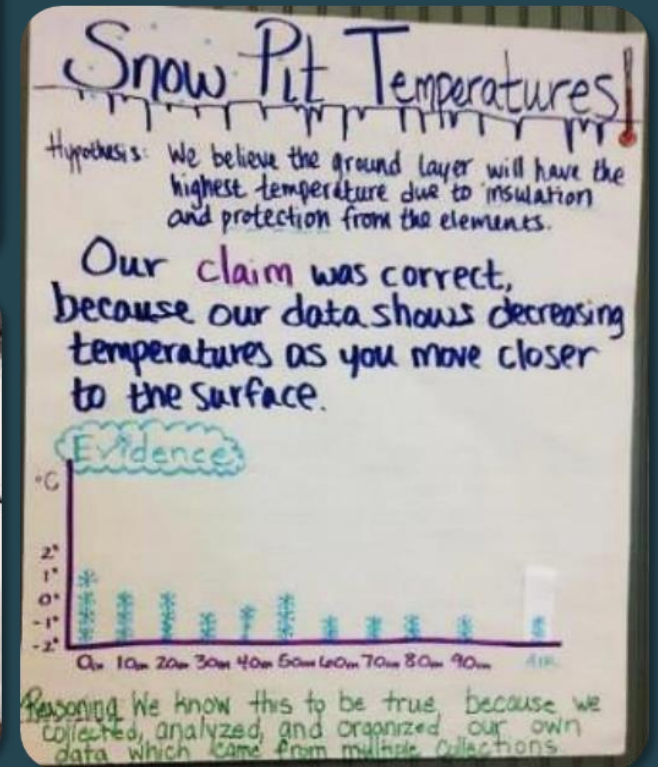
School or grade level specific, local, regional or statewide

Clock hours including STEM and CTE

Place-based, relevant and standards-aligned

Customizable

Low to covered cost for schools







**We are here to support  
your vision and efforts!**







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**Reach out - we are here to help!**



# Additional Slides – Specific Information





# Why FieldSTEM?

## WAC 392-410-115

•...(6) Pursuant to RCW 28A.230.020 instruction about conservation, natural resources, and the environment shall be provided at **all grade levels** in an **interdisciplinary** manner through science, the social studies, the humanities, and other appropriate areas with an emphasis on solving the problems of human adaptation to the environment.





**Standard 1: Ecological, Social, and Economic Systems** Students develop knowledge of the interconnections and interdependency of ecological, social, and economic systems. They demonstrate understanding of how the health of these systems determines the sustainability of natural and human communities at local, regional, national, tribal, and global levels.

**Standard 2: The Natural and Built Environment** Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments.

**Standard 3: Sustainability and Civic Responsibility** Students develop and apply the knowledge, perspective, vision, skills, and habits of mind necessary to make personal and collective decisions and take actions that promote sustainability.



# House Bill 2078 & Outdoor Education For All

Outdoor education aligned with NGSS, Since Time Immemorial, Social/Emotional Learning, and other integrated curriculum for all Washington State students.

## Outdoor Learning Grants: Building Skills and Capacity



**\$1.95 million**

Allocation based grants for schools and districts

- preK-12<sup>th</sup> grades
- Multi-day outdoor education experiences



**\$1.85 million**

Competitive grants for CBOs

## Overnight Outdoor School: Culminating Experiences

WASHINGTON SCHOOL PRINCIPALS'  
EDUCATION FOUNDATION



**Outdoor  
Schools**  
WASHINGTON

**\$5.9 million**

Reimbursement to school districts for Outdoor School expenses

- 5th or 6th grades
- High school students as counselors
- Up to 4 nights, or day programs if impractical due to health, cultural or capacity

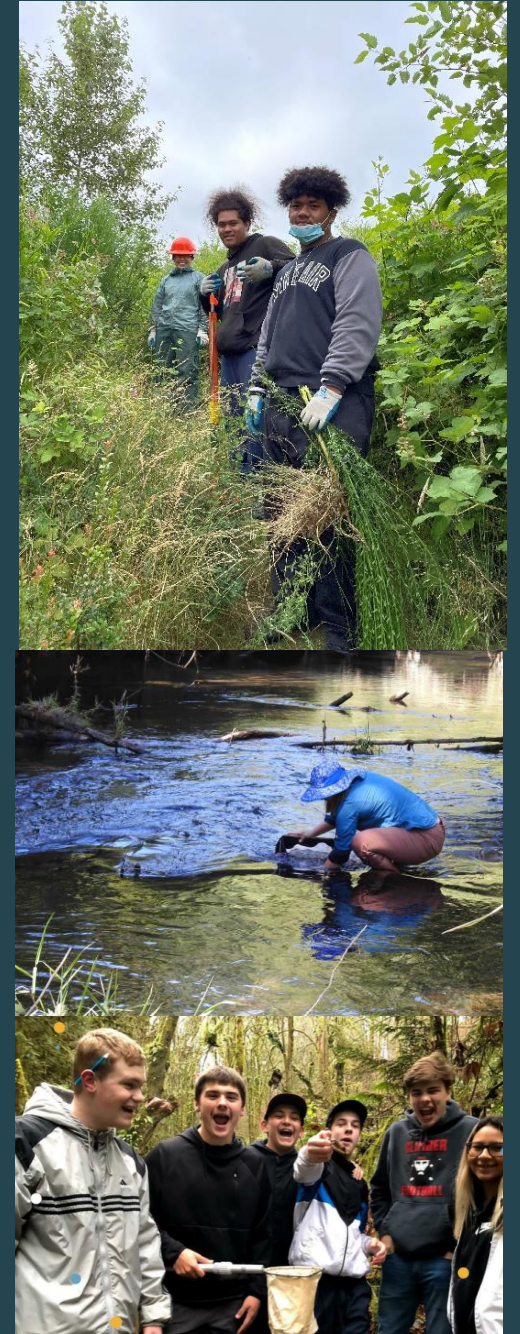


Washington Office of Superintendent of  
**PUBLIC INSTRUCTION**

# FieldSTEM Approach

FieldSTEM supports increased engagement and academic success

- Centers **culturally responsive** instruction, meets students where they are and **supports student identities**.
- Incorporates **social emotional learning** and **nature-based learning** to support healthy development
- **Integrates content standards** through community-designed curriculum which provides **authentic outdoor learning** experiences. Supports learners **how to think, not what to think**
- Embeds strategies for instructional practice / teaching routines to support **student-directed** learning, **student choice** and elevates **student voice**
- Results in **scientific literacy** and **civic engagement and action** in the community





# Youth Engaged in Sustainable Systems (YESS)

- CTE or core summer 5-6 week course
- Address state standards and natural resource industry competencies
- Recruit historically underserved populations
- 8-16 students per program
- At least 3 days/week at sites

## Students Earn:

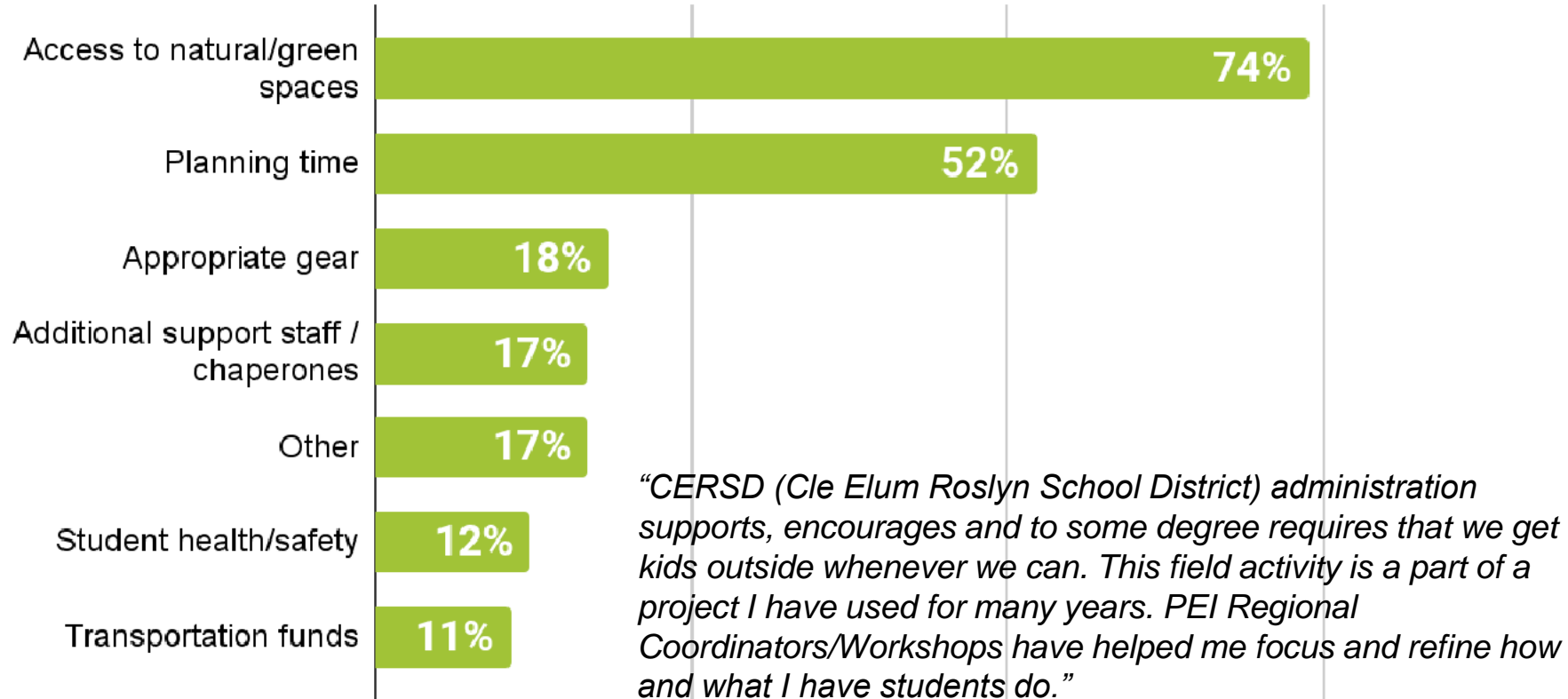
- High school credit
- Document of competency
- \$1,800 stipend
- Hands-on skills, work, and learning experience
- Dual college credit (for some courses)

**YESS  
Partnership  
Model**



# FieldSTEM Implementation

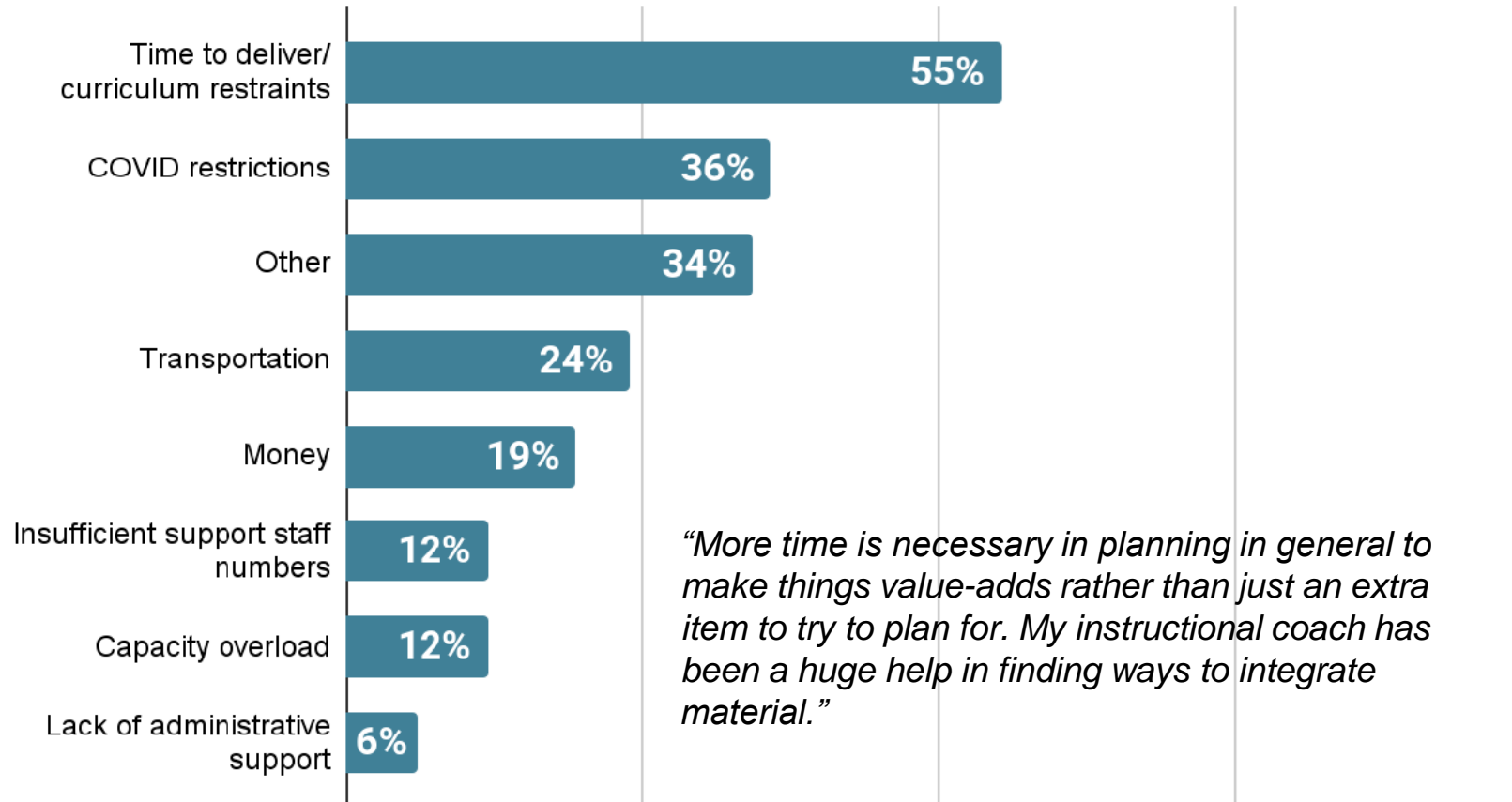
## Administrative and School Supports (select all that apply)





# FieldSTEM Implementation

## Barriers to Implementation (select all that apply)



# Professional Learning Opportunities

## Recent and Up-Coming Workshops

**March 1 & 15, Solution Oriented Learning Storylines: Forest Festival (Forest Carbon Science)**

**March 2** Introduction to Math Performance Tasks

**March 7 & 21** Investigating Invasive Species WA Pest Watch—Grades 3-8

**March 8** Introduction to ELA Performance Tasks

**March 9** Introduction to FieldSTEM (Spanish)

**March 9** Project Wild for South Whidbey Educators

**March 16** FieldSTEM: FieldDesign-focus on Environmental Justice

**March 16-17:** Environmental Education CTE Framework Writing

**April 8:** Food Waste for Central Washington Educators

**April 18** YESS Educator PLC Launch (YESS PLN Part 1)

**April 19** Introduction to Fostering Outdoor Observation Skills and Science Notebooks

**April 20** Introduction to Field Investigations



**STEM clock hours | cost covered by grants |  
implementation stipends**



# Professional Learning Opportunities

## Up-Coming Workshops Continued

**April 22:** PreK-K: Growing Up Wild Trees & Me

**April 22:** Sustainability Course: A focus on medial literacy (for MS & HS teachers)

April 25<sup>th</sup> Developing your YESS curriculum (YESS PLN Part 2)

**April 27** FieldSTEM and Civic Engagement

April 29<sup>th</sup> Renewable Energy: Solar (for CW and EW Educators)

May 2<sup>nd</sup> to 5<sup>th</sup> Designing an Overnight Outdoor School Experience for 5<sup>th</sup> & 6<sup>th</sup> Grade student

**May 3** ELA Performance Tasks for Dual Language Educators

May 6<sup>th</sup> Urban Forestry: Environmental Justice Focus

May 15<sup>th</sup> Forest Carbon Sequestration: Climate Science

May 20<sup>th</sup> Deep Data Dive, Finding evidence of Student Growth with SOLS pre and post assessments

**May 25** Introduction to FieldDesign

June 16 Plant and Tree Id and Intro to GIS (YESS PLN Part 4)



**STEM clock hours | cost covered by grants |  
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