



APPLEGATE PARTNERSHIP & WATERSHED COUNCIL

2023 FINAL REPORT

APPLEGATE OUTDOOR SCHOOL



PREPARED AND PRESENTED BY

EVA KING - EDUCATION & OUTREACH PROGRAM DIRECTOR

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EXECUTIVE SUMMARY

A CLOSER LOOK INTO THE APPLGATE OUTDOOR SCHOOL



2023 signified the first year of operation for the Applegate Outdoor School (AOS). All nine weeks this spring were completely booked with 435 sixth grade students from the Medford School District 549C. Designed to deliver four days of inquiry-based science lessons, each student took part in six place-based, standards-aligned field studies at Cantrall Buckley County Park. Our program fees were covered entirely by the Measure 99 funds that ensures every 5th or 6th grade student can attend outdoor school in Oregon at no cost to families or schools. Four charismatic instructors worked with the students daily to deliver the curriculum and to help them build lifelong connections to nature. The assessment results showed statistically significant positive changes in students attitudes toward the natural world in many areas after attending the Applegate Outdoor School. After a successful pilot year, AOS is looking forward to expanding and enhancing the experience for next year's students and beyond.

PROGRAM OVERVIEW

The Applegate Outdoor School was created by the Applegate Partnership & Watershed Council (APWC) as part of their Education and Outreach Program. 2023 marked the pilot year for the new program. It was designed, developed, and implemented by APWC staff, and ran for nine consecutive weeks in April and May.

It consisted of pre and post classroom visits and four consecutive field days at Cantrall Buckley County Park. This park's 88 acres is located along the Applegate River and provides a beautiful locale for students to experience nature in a hands-on, site-specific approach.

Upon arrival, each class was introduced to their new outdoor classroom, got to know the instructors, and built comradery with their fellow classmates. As the week progressed, AOS students participated in six place-based field studies rooted in one of our four daily themes - place, water, forest, and fire. The four field days ran 9:30am-1:30pm everyday to accommodate the schools' schedule. The week ended with a traditional campfire experience around a gas firepit. The instructors and students sang songs, danced, and performed skits in one final celebration together before saying their final farewells.

OUR OBJECTIVE

Our primary goal was to provide a high-quality, day-only outdoor school experience for 5th and 6th grade students. We wanted an inquiry-based science curriculum that consisted of place-based and standards-aligned field studies

After talking to local teachers, we knew there was a need for more day-only outdoor school providers in Southern Oregon. We sought to provide an outdoor school experience that fit the needs of local students, teachers, and parents.





THE CURRICULUM

SIX PLACE-BASED, STANDARDS-ALIGNED FIELD STUDIES

Navigation

Students go back to basics and learn to read topographical maps and develop basic compass orienteering skills including taking a heading, following a bearing, and using triangulation.

Watersheds & Riparian Areas

Students simulate a watershed and factors that contribute to its overall health. They hike the riparian area and learn the basic components of riparian zones and the ecosystem services they provide while planting their own willow trees.

Water Quality & Macroinvertebrates

Students conduct various water quality tests to determine the health of the river. They collect and identify macroinvertebrates and relate their findings of water quality to fish and macroinvertebrate diversity and abundance.

Tree Identification

Students are introduced to dichotomous keys and learn how to use them to identify unknown tree species. This data allows students to assess how biodiverse the area is and create their own "biodiversity plan" to help protect it in real life.

Forestry

Students learn the basics of some forestry tools and collect data from a stand of trees. They measure the height, diameter, crown class, and crown ratio of each tree. Students also get to take a tree core sample and determine its age.

Fire Forests

Students build their own "matchstick forest" and experiment with varying factors (i.e., water, wind, fuel load, topography) that impact wildfire behavior. They also study fire adaptation strategies used by native plants.

STUDENTS SERVED

435 SIXTH GRADE STUDENTS FROM SEVEN SCHOOLS IN THE MEDFORD SCHOOL DISTRICT 549C



While we advertised to numerous school districts in Jackson and Josephine county, registration filled with students from the Medford School District 549C. We served 435 sixth grade students from seven different schools. Many schools combined classes together to attend AOS, so most weeks two classes from the same school attended together. AOS numbers ranged from 29-56 students per week. The elementary schools each attended one week, while the two middle schools attended two consecutive weeks each.

Schools served, in order by attendance:

1. **McLoughlin Middle School** (two weeks) - 103 students
2. **Abraham Lincoln Elementary School** - 56 students
3. **Hedrick Middle School** (two weeks) - 111 students
4. **Washington Elementary School** - 39 students
5. **Roosevelt Elementary School** - 29 students
6. **Wilson Elementary School** - 50 students
7. **Kennedy Elementary School** - 47 students

This was the first year that every sixth grade student in the Medford School District 549C attended outdoor school. We are honored to have contributed to that success.

OUR STAFF

THE PEOPLE BEHIND THE APPLGATE OUTDOOR SCHOOL



Eva King
Program Director



Leah
Field Instructor



Setthaphone
Field Instructor



Brook
Field Instructor



Caleb
Field Instructor

This year's Applegate Outdoor School was a passion project. Eva King was brought on as the new Education & Outreach Program Director in January 2022 and immediately went to work designing the new program. APWC had previously been contracted out by the Ruch Outdoor Community School (ROCS) to facilitate a single day of ROCS outdoor school programming for 3-4 schools in the spring. As the demand for more day-only outdoor school providers increased, AOS was born as a stand alone program with ROCS as a supportive partner.

The program was implemented by four knowledgeable and dynamic field instructors who shared their love of nature with the students on a daily basis. Each instructor contributed strong unique skills to this year's program gained from academic, professional, and personal experiences. As the true face of the Applegate Outdoor School, the field instructors scrupulously guided the students through their week-long outdoor school endeavors and provided them with an authentic, meaningful learning experience in the great outdoors.

PROGRAM ASSESSMENT

MEASURING HOW CONNECTED STUDENTS FEEL TO NATURE

The Connectedness to Nature Scale (CNS) is a tool published by Mayer and Frantz in 2004. It is primarily used in environmental psychology and aims to quantitatively measure an individual's level of emotional connection to the natural world. The modified CNS-R version is designed for children as young as 10 years old. The CNS-R has ten statements for which students rate their feelings utilizing a Likert Scale. This scale was distributed to each student prior to and after their AOS attendance.

Students who attended AOS experienced changes in feeling connected to nature for all of the CNS-R statements (see Table 1). We predict the biggest impacts, that students felt more related to plants and animals and see themselves as a part of the greater circle of life, was because of specific content delivered including:

- interactive games and real-life examples depicting the life cycle
- lessons targeting the interactions between humans and the environment.
- comparing humans anatomically and ecologically with plants/animals

A likely explanation of decreased scores is due to how our program raised awareness of negative human impact to other organisms, such as watershed pollution, which can create feelings of disconnection. Also, as people realize all that they don't know about a resource, it can result in a perspective shift about their true understanding and connection to it. Another potential explanation is that after AOS, students became more aware of their lack of experiences in nature.

I often feel a strong connection to nature.	↓	6%
I think of nature as a family that I belong in.	↑	3%
I see myself as a part of the greater circle of life.	↑	7%
Humans are more important than plants and animals.*	↓	1%
I feel related to animals and plants	↑	7%
I feel I belong to the Earth and that the Earth belongs to me	↑	2%
I feel that all living things in this world are connected, and I am a part of that.	↑	3%
There is something that every living thing shares.	↑	1%
Like the tree in the forest, I feel I belong to nature.	↑	2%
I don't feel a part of nature.*	↓	3%

Expressed as change in percent score in pre and post program assessment. Arrows indicate direction of change (increase or decrease).*Inverted scoring technique utilized to ensure integrity of responses.



FINANCIAL SUMMARY

ALL OF OUR PROGRAM FEES WERE COVERED BY MEASURE 99 FUNDS. MEASURE 99 ALLOWS EVERY 5TH OR 6TH GRADE STUDENT IN OREGON TO ATTEND OUTDOOR SCHOOL AT NO COST TO SCHOOLS OR FAMILIES.

REVENUE/FUNDING:

Several sources of income provided the necessary monetary support for this year's Applegate Outdoor School. The program received funding from the Jackson Soil Water Conservation District (\$10,000) and the Oregon Department of Fish and Wildlife (\$1900) for program development and learning materials. The main source of funding came from our program fees which totaled \$130,500. Total funding for this year's program was \$142,400.

COSTS/EXPENDITURES:

The costs for this year's Applegate Outdoor School program fall into one of the following categories -

- Project management
- Materials and supplies
- Permits and trainings
- Meals and transportation
- Equipment

The two largest expenses were payroll (\$61,580) and meals (\$21,848). Total expenses for this year's program was \$108,220.

LOOKING AHEAD

NEXT STEPS FOR THE APPLGATE OUTDOOR SCHOOL PROGRAM

As we close the book on this year's program, the Applegate Outdoor School is already looking ahead to next year. The 2023-2024 school year brings big changes to the Medford School District 549C. Next year, sixth grade will no longer be a part of elementary schools. With the construction of a new middle school complete, incoming sixth grade students will attend one of the following four schools

1. Hedrick Middle School (6-8 grade)
2. McLoughlin Middle School (6-8 grade)
3. Oakdale Middle School (6-8 grade)
4. Ruch Outdoor Community School (K-8 grade)

This provides a valuable opportunity for us to adapt and change our program to meet the needs of these schools for next year.

Another exciting prospect is the possibility of incorporating an overnight program into the Applegate Outdoor School curriculum. Jackson County Parks plans to build two yurts in the group campsite located adjacent to Cantrall Buckley Park. These yurts would allow us to offer an overnight option for teachers and schools seeking a residential outdoor school experience for their students. This would also allow us to serve school districts from a wider geographical region.

2023 was a great year for the Applegate Outdoor School. But we are looking forward to the changes and innovations 2024 will bring.



ACKNOWLEDGEMENTS

A THANK YOU TO THE PEOPLE WHO MADE IT POSSIBLE



APWC would like to thank **Jackson County Parks** for their invaluable assistance and support in allowing the Applegate Outdoor School to take place at Cantrall Buckley Park.

We also want to thank **Ruch Outdoor Community School** for their ongoing partnership and endorsement in the Applegate Outdoor School.

A big thank you also goes to **Emily's Kitchen** for creating and serving delicious meals to our staff and students on a daily basis and **Chickawegian Family Outpost** for designing our apparel.

We would also like to express gratitude to the **Jackson Soil Water Conservation District** and the **Oregon Department of Fish and Wildlife** for providing funds to develop and implement the Applegate Outdoor School. These funds not only benefited this year's program, but laid the foundation for many years to come.

Lastly, **Janis Mohr-Tipton**, your dedication to this program was unparalleled. Without your tireless effort and guiding wisdom, there would be no Applegate Outdoor School. Thank you for everything you do.