

Upper Elementary Continuing Geography Integration Project Summary

Powell Butte Community Charter School (PBCCS) requests \$14,337 to support our Upper Elementary Teaching Team's desire to continue the momentum of the high quality place based teaching and learning that was happening before and has continued despite the pandemic (as best we could). The team has identified the following priorities that need to be accomplished to keep our place based education going strong into the next few years:

- Plan, deliver, reflect and document classroom lessons, grade band special days, community resources and field studies for the 2021-2022 school year, reconcile and document the curricular and community resources used in the spring of 2020 and the current water themed year.
- Participate in professional development with the GLOBE Observer program so that the teachers can use the data collection app with students to collect and share data about their place.
- Become proficient with the elementary GLOBE curriculum to anchor some place based units in our land, water and community themed years. Teachers will align the GLOBE modules to units where the fit is right, not forced.
- Become proficient with the geo inquiry process so that it can be used as an instructional strategy for our place based units during the 2021-2022 land themed year (and consequently in water and community years too).
- Maintain relationships with our statewide place based partners so that we can continue to educate our students about a variety of voices and cultures that have been impacted by Oregon's geography.
- Purchase instructional materials including ipads to run the GLOBE Observer app and roll down classroom maps so that locations around the world, the country and the state can be easily referenced during the course of the school day.

Background: From 2016 through 2019, the Gray Family Foundation supported PBCCS to build placed based scope and sequence documents for our three rotating annual curricular themes of land, water and community (aligned the NGSS and Oregon Social Studies standards) for each of our three grade bands: K-2, 3-5 and middle school as well as professional development and collaborative work time to meet our curricular goals. Because we are a small school, with one class per grade level, the teachers are teamed up to develop place based units based on the science and social studies standards for an entire grade band. These teams pool their talents and resources to create place based learning experiences on and off campus for all the students in a grade band, not only their individual class.

PBCCS's annual rotating place based themes of land, water and community are developed so that students can explore and understand the challenges facing prior, current and future communities of Oregon. In the 2019-2021 community year, the upper elementary students solved a QUEST to explore how people engage with the community of Prineville, shared their understanding of the purpose of government by creating a government for a fictional island and followed a storypath in which they took on the roles of Wasco people living in Celilo Village as the Dalles Dam was pushed through. In prior water themed years, students have become Riverkeepers and Hydroscouts to learn about and protect their waterways (this year's water theme was diluted due to the extreme demands on our teachers during the COVID Pandemic). During next year's land theme, the students will learn about the diversity of people who came to the region along with geology and economics, which we group into a unit on agriculture and economic issues facing Oregon's rural communities.

PBCCS's proposed Upper Elementary Continuing Geography Integration Project aligns with all three of the Gray Family Foundation's priority objectives:

First, the proposed project will improve students' practice of geography skills, tools, and perspectives and it aligns well with PBCCS's vision to be a *rural public school dedicated to the integration of an outstanding academic program with the community, the land, and its people*. Through experience we've come to appreciate geography as a tool for realizing our place based mission of *students becoming stewards of their environment and community*. We've built a solid program and now have a firmer grasp on how we want our students to connect to place. However, after running through the annual themes three times now we've realized the teachers need the ability to access the structure of set curriculum and the support of community partners to make these learning experiences a reality.

Second, the project supports interdisciplinary instruction of geography as a foundation for instruction of other subjects through our place based approach to education. The structure of the place based themes with their roots in science and social studies gives the students the opportunity to read and write about the content, to participate in outdoor learning experiences (both on and off campus) tied to the themes, to build long term relationships with community partners and to take on projects that directly benefit the community and the environment. With professional development and collaborative work time the teachers will be able to identify areas in our scope and sequence for all three of our annual curricular themes where we can integrate geography as tool for learning about place and for students to demonstrate their learning through assessments that involve writing, speaking, mapping/ visual transformations and presentation standards.

Third, the proposed project increases student participation in geography learning experiences. Over the years, with guidance from the Oregon State Social Studies Standards, we've learned the importance of elevating and highlighting perspectives that are not traditionally highlighted. PBCCS's administration and teaching are on board with creating and delivering geographic learning experiences that focus on voices and cultures impacted by Oregon's Geography. In the spring of 2020, when the pandemic sent the World into lockdown, this team was leading their classes through the Celilo Storypath; they left off when Celilo Village was inundated with water after the Dalles Dam was built. Lead teacher Allyson Hamlik explained that this experience allowed the students to live the experience and build empathy for the folks who lost not only their homes but primarily their way of life in that event. The teachers were blown away by the success of the storypath and are eager to continue to provide similar experiences to expand their students' worldview.

Creating authentic place based learning experiences takes time and doesn't come straight from a textbook. To be their best for their students, teachers need time to reflect on the teaching and learning that has occurred so they can improve for next time. They also need time to collaborate and plan for upcoming units. This team is committed to holistic education that consists of time in the classroom and the field. When they have time to plan and feel prepared they are more likely to incorporate that learning into their teaching practice. In this case, if the teachers are able to learn more about geography education they are more likely to incorporate it into their place based units. And when the teachers have time to collaboratively plan before a unit and reflect and document their work after a unit, then they are better prepared to repeat the learning experiences for future classes.

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Describe how you will accomplish your project, including the methods you will use to complete the project. Include timeline, who will benefit from the instructional resource (number of students, grades, etc.)

PBCCS's Upper Elementary Continuing Geography Integration Project will be accomplished through the following methods: self led, geography focused professional development, collaborative work time, collaboration with community partners and a purchase of materials to support interdisciplinary instruction, all of which will result in interdisciplinary place based learning experiences for the students.

The Upper elementary team needs time to improve prior curriculum and plan for instruction for the land year. The team will learn to use the geo inquiry framework along with the [GLOBE observer](#) app, a technology tool that will allow students to collect data related to their questions about their place initially during the land themed year and subsequently in the community and water themed years. Additionally, the team will review and select [curricula available through GLOBE](#) to upgrade existing land themed units for the 2021-2022. While the elementary GLOBE curriculum is primarily a science curriculum, it is aligned to many National Geography Standards (1, 4, 7,8, 14, 15) and integrates geographic skills, tools and perspectives as students collect, share and map data about their place and relate it to other places in Oregon and around the world.

The upcoming land theme of the 2021-2022 school year feels most immediate, but the teachers also need time to address the work done during the community and water themed years. The COVID Pandemic has taxed the staff to their limits as they shifted their entire teaching practice first to remote learning then to a hybrid model, which will continue through June, 2021. They haven't yet been able to step back and take a deep breath to reflect upon and reconcile the curriculum created or used in the spring of 2020 or this year's water theme. They need to record the resources used, reflect on instruction and learning and make necessary adjustments to the scope and sequence for both themes. The team did a fantastic job of improving students' practice of geography skills, tools, and perspectives in the last two school years and we need to document the work so that they are prepared to continue the good work into the next PBE theme cycle.

For geography to provide the foundation of interdisciplinary instruction, the teaching team needs some instructional materials. First, to use the GLOBE Observer app, the teachers need a set of ipads for students to use in small groups to collect and share data about their place. Second, to efficiently and effectively integrate geography into everyday classroom instruction the 4th and 5th grade classes would like a set of roll down maps of the World, The United States and Oregon. Right now, the teachers project a map off the internet as needed, but they can't project instructions and a map at the same time. (The third grade class already has a set of maps).

Based on the scope and sequence that we created for the prior land themed year in 2018-2019, the students will start the 2021-2022 school year with an introduction to geography kick off unit then focus on geology in the fall, a non-traditional "westward expansion" unit (we've begun to find resources about a variety of people who came to Oregon including the tribes, latino people and folks of Chinese or Japanese descent, to name a few) in the winter and agriculture in the spring. The teachers have already developed essential questions for each unit, which can be used to guide a geo inquiry.

During the 2021-2022 school year, the students will participate in a minimum of three field studies tied to our rotating annual PBE themes of land, water and community. The field studies highlight current challenges and opportunities facing local communities in Oregon. If the pandemic continues to rage, then the field studies will be virtual with the partners Zooming into the classroom, which isn't ideal but is good enough.

The project will directly reach 84 students, 28 third graders, 28 fourth graders and 28 fifth graders, during the 2021-2022 school year. The project will continue to serve the same number of upper elementary students in subsequent school years as the teaching team continues to use the GLOBE observer protocols and the Geo Inquiry Process to guide future place based education projects in the water and community themed years. Plus, the team also collaborates with our other grade band teams and I'm confident that their enthusiasm will inspire the other teams to up their place based teaching game, which will indirectly affect all of PBCCS's 212 K-8 students.

Timeline:

May 28, 2021: Grant funds awarded

June, 2021: Set dates for summer teacher training and collaborative work time

Summer 2021:

Summer Collaborative Work Day 1:

- Reflect upon and reconcile place based learning experiences delivered during the pandemic. Document and organize all respective instructional material.
- GLOBE Observer training and familiarization: [GLOBE Observer e training](#), set up teacher accounts, teachers complete the three requirements for the e training: Intro to GLOBE, Intro to one of the protocols (likely pedosphere for the land year, ultimately teacher's choice) protocol and at least one of the sub trainings within the protocol.
- Roughly assign GLOBE protocols and associated science bundles to appropriate units in the land, community and water themed scope and sequence documents (example: soils and earth system modules in land theme year, water and and clouds to the water themed year)
- Select GLOBE science bundles related to the protocols for the land theme.

Summer collaborative work day 2:

- Set up class / school accounts, make sure the set of ipads have the GLOBE Observer app uploaded.
- Build lesson plans for the intro to geography kick off unit. When & where & what data be collected? Set dates for fall field studies.
- Become familiar with the Geo Inquiry teacher and student guides along with the Elementary GLOBE Curriculum, review the teacher guide, and select classroom activities related to fall land year unit, also review Elementary [GLOBE](#) story books and activities related to the land year.

September through December, 2021

- Project kick off with students who will observe and ask questions about the land around them and then learn how to use the GLOBE Observer app and begin collecting data on the physical characteristics of Powell Butte/ central Oregon.
- Place based land themed learning activities on campus and at Cove Palisades State Park.
- Teacher release day for collaborative planning for place based instruction during the late fall and winter.

January through March, 2022

- Teacher release day for collaborative planning for winter and spring land themed units and for presenting the project at Geo Fest
- Winter land focused learning activities for students, field study at the High Desert Museum.
- Geofest 2022: present the project

April through May, 2022

- Teacher release day for collaborative planning, now that teachers are familiar with the GLOBE Observer program, they can designate different GLOBE modules to the other annual themes: Do final assignments of GLOBE protocols and associated science bundles to appropriate units in the land, community and water themed scope and sequence documents based on how the GLOBE observer program worked during instruction in the land themed year. Finalize plans for culminating land theme projects.
- Spring field studies to Blue Stone Farm, possibly OSU Ag research center and Imperial Stock Company
- Culminating land themed projects with students

June 2022

- Students share their learning with the community (virtual or in person tbd)
- Reflect upon, make adjustments and document all curricular and community resources for the land themed year.
- Submit financial and programmatic reports to the Gray Family Foundation

Describe the instructional deliverables you plan to develop and your plan for sharing them or making them accessible to other educators.

As a result of collaborative work time, the Upper Elementary Team will:

- Develop and deliver an introduction to geography unit through which students begin to learn how to use the GLOBE Observer app to collect data that addresses their questions about Powell Butte/ central Oregon and to share data with a larger audience (GLOBE Observer data is shared to the GLOBE program).
- Update two land themed place based units that are improved by the addition of either GLOBE Observer, elementary GLOBE curriculum or the geo inquiry process.
- Create one land themed place based culminating project for spring 2022 land theme that allows students to demonstrate their understanding of geography, geology, how & why people came to Oregon and agriculture (as an economic base of Oregon).
- Update the upper elementary scope and sequence documents for each of the land, community and water themed years.

The deliverables will be available to all current and future PBCCS teachers on the Place Based Education Google Drive that is already set up to house each grade band's curricular materials for the land, community and water years. The team also plans to share this project at CGEO's Geofest in March 2022 and will share the materials with interested educators from that event. Allyson Hamlik is on CGEO's Advisory Committee so she will share her experience and help guide geography education in Oregon through her service there as well.

PBCCS's Upper Elementary Team Qualifications

The Upper Elementary Geography Integration Project is spearheaded by Allyson Hamlik, a third grade teacher, who has a passion for geography. She has served on PBCCS's place based steering committee for four years and was recently elected to CGEO's Advisory Committee. She is joined by two equally dynamic and

progressive teachers, Tracy Chancellor (grade 4) and Kelly Joyce (grade 5). The team has four years of experience working together; they are particularly collaborative and innovative on how they maximize time and energy by rotating students through activities in special schedules and are well equipped to continue this work into our next cycle of our place based education themed years. Despite the challenges of the current pandemic, they have continued to prioritize PBE and have made considerable efforts this year to bring partners to the classroom (virtually) and to provide modified learning activities for their students. Each teacher has provided a brief introduction to themselves below:

Allyson Hamlik - I create lessons that are aligned to state standards but are embedded and integrated with the Community, Land or Water theme emphasis of our school year. Through place-based lessons and experiential activities, my students are able to grow to become stewards of their place. I collaborate with my teaching team to help students develop a growth mindset which enhances their ability to think critically, communicate effectively, and excel academically with cross-grade 3-5 STEM days, multiple yearly field trips, and place-based storylines. My personal philosophy of experiential learning creates service-learning opportunities to allow students to mature into global citizens.

Tracy Chancellor- During my 19 years of teaching I have fostered a love of learning in my students through hands-on, engaging activities that cultivate critical thinking and stewardship of their community and environment. My training in project-based learning and International Baccalaureate have given me the foundation to create and implement highly engaging placed-based learning opportunities at our school. Through the collaboration of our 3-5 team, we are able to produce place-based units which engage students in learning about their community, land, and water. These units encourage students to not only learn our state standards but also gives them the knowledge, tools, and opportunities to inquire, explore and take action.

Kelly Joyce - Throughout my 13 years in education I have been dedicated to creating a relevant, innovative, and engaging educational experience for elementary students. My training in STEM education and field based nature journaling has given me a strong foundation to integrate science and arts into our Place Based units and throughout our curriculum. These training sessions along with consistent collaboration with my grade level team has enabled me to create unique and interactive units centered around our themes of land, water, and community. Each of these units encourages students to develop a deeper understanding and connection to their place which empowers them to become stewards of their community and their world.

Describe partners and our plans to engage them and how we plan to compensate them for their contributions:

In place based education, the teacher is the lead learner. Every time we repeat the annual themes, we build stronger relationships with our community partners and learn more about central Oregon. We put considerable effort into cultivating and maintaining relationships with community partners since their contributions are absolutely essential to the success of our Place Based Education Program. We'd like to continue these relationships into the future so that our students can continue to learn about all the people who make Oregon home, not just the people who look like them or who also live in rural areas.

For the land year in particular, we plan to continue partnering with the Confluence Project, who will bring in the indigenous perspective, High Desert Museum, Cove Palisades State Park and Bluestone Farms in Powell Butte. Confluence Project and Bluestone Farms will need to be compensated for their work and we'll pay entry fees for the museum visit. In the 2018-2019 land themed year, the High Desert Museum put together a special

program to expose all of our K-8 students to the diversity of people who have made and continue to make Oregon their home and we'll request a similar program next year. State Parks and other government agencies have mandates to educate and reach out to communities in their region, which means they are already compensated for their time. During the spring agriculture unit, we will use the curriculum and activity kits from Oregon Agriculture in the Classroom, but we already have the text books and the material kits are free to educators.

Appendix:

PBCCS Place Based Education Land Year Overview:

This is an overview of what was taught in the most recent land year, 2018-2019. It is a starting point for what we intend to teach in the 2021-2022 land year.

<u>Upper Elementary Grades 3-5</u> Big Ideas, Essential Questions and Potential Field Studies
Fall <ul style="list-style-type: none">● Intro to Geography Unit<ul style="list-style-type: none">○ Where in the world is our community?○ Where in the United States is our community?○ How does geography affect the way we live?○ How have people changed the physical geography of the land? ● Geology<ul style="list-style-type: none">○ How has the land changed over time?○ How did plants and animals come to be here and how do we know?<ul style="list-style-type: none">■ <i>Field Studies: Cove Palisades State Park, Smith Rock (Next time)</i>
Winter <ul style="list-style-type: none">● People & land ownership:<ul style="list-style-type: none">○ How and why did people come to Central Oregon○ Why do people live in Central Oregon?○ Who owns the land? What does it mean to own land?○ How do indigenous people interact with the land?<ul style="list-style-type: none">■ <i>Field Studies: Peter Skene Ogden State Park, High Desert Museum</i>
Spring <ul style="list-style-type: none">● Personal Finance & Economics:<ul style="list-style-type: none">○ How do products get to and from markets?○ What is exported from and imported into Central Oregon? Powell Butte?○ How do we make a profit?○ How do people make money in Central Oregon? What types of business models work here?○ How do supply and demand affect each other? Natural Resources:<ul style="list-style-type: none">○ How is land in Central Oregon used for agricultural purposes?○ How do we manage our natural resources effectively? (cows, soil)○ How do natural resources shape the economy of Crook County?<ul style="list-style-type: none">■ <i>Field Studies: Bluestone Natural Farms, Ag Day at the Expo Center, Ag research center (5th), Imperial Stock Company (3rd) 1017 Project</i> Grade specific place based field studies:<ul style="list-style-type: none">● 4th grade overnight at Tumalo State Park, April 25-26, 2019● 5th grade trip to Newport (Oregon Coast), May 8-10, 2019

The Elementary GLOBE Program aligns to the following National Geography Standards

Standard # 1: How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Standard # 4: The physical and human characteristics of places

Standard # 7: The physical processes that shape the patterns of Earth's surface

Standard # 8: The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

Standard # 14: How human actions modify the physical environment

Standard # 15: How physical systems affect human systems

Source: pg 14 of [The GLOBE Program Teacher's Implementation Guide](#) 2017

Confluence Project Projected Costs for 2021-2022

Confluence and Powell Butte 2021 - 2022 CIC Planning Budget			
Educator	Hours	Rate	Total
Native Educators/Artist Visit 1 @ \$65/hr x 3 classes	3.00	65.00	195.00
Native Educators/Artist Visit 2 @ \$65/hr x 3 classes	3.00	65.00	195.00
Native Educator/Artist preparation time	2.00	65.00	130.00
Confluence Staff	2.00	35.00	70.00
Total	10.00		590.00
Field Study			
Native Educators/Artist 1 @ \$65/hr	4.00	65.00	260.00
Native Educators/Artist 2 @ \$65/hr	4.00	65.00	260.00
Native Educators/Artist 3 @ \$65/hr	4.00	65.00	260.00
Native Educator/Artist 1 preparation time	1.00	65.00	65.00
Native Educator/Artist 2 preparation time	1.00	65.00	65.00
Native Educator/Artist 3 preparation time	1.00	65.00	65.00
Confluence Staff	6.00	35.00	210.00
Total			1,185.00
Supplies	50.00		
Mileage estimate - if in person	160.00		

Estimate Total - with Field Study	2,505.00		
Estimate Total - without Field Study	800.00		

Supporting Curriculum Resources:

- [Climate and Ag in Oregon](#) from Center for Geography Education in Oregon is the basis for the spring Agriculture unit
- Oregon Agriculture in the Classroom
- CGEO's Student Atlas of Oregon
- [ESRI resources/ completed lessons for upper elementary](#)
- [Geo Inquiry Process](#)
- [Elementary GLOBE](#)