QUICK START GUIDE TO IMPLEMENTING PLACE-BASED EDUCATION

GETTING SMART in partnership with eduInnovation & Teton Science Schools

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#PlaceBasedEd

"Learning & The Power of Place" is a year-long Place-Based Education

project with a blog series, social media campaign, podcasts and publications

to support implementation. For more information, see http://www.

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AN OVERVIEW OF PLACE-BASED EDUCATION

"What we mean by place-based education is an always co-evolving collaborative activity that makes salient the cultural, historical, political, economic, environmental, social, and physical aspects of what and how we teach."

— Christine A. Coughlin and Susan A. Kirch, "Place-Based Education: A Transformative Activist Stance"

Communities across the country — and indeed across the globe — are coming together to have important conversations about how schools must change to ensure students graduate with the knowledge, skills and mindsets they need to thrive in modern, democratic society. There's a growing awareness that the current education system emphasizes "doing school" over learning. Teachers, leaders, students, families, community leaders, business leaders and the public at large agree that today's graduates need more.
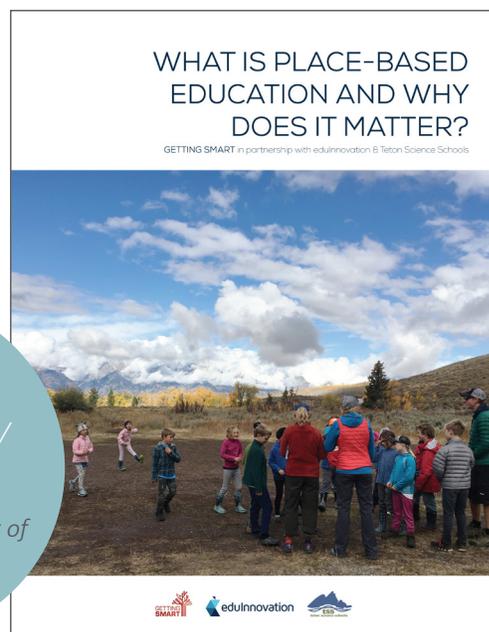
Schools are putting new learner-centered models into place to address this concern. Models like blended learning, student-centered learning, competency-based learning, deeper learning, project-based learning and others are gaining momentum as teachers and leaders attempt to personalize learning to better meet the unique needs of individual students.

Our work with hundreds of schools and in tracking education innovations, such as personalized learning, revealed that Place-Based Education is currently missing from the global discussion of powerful personalized learning models that can increase student engagement and improve student outcomes. We believe that adding Place-Based Education to the global education discourse will offer a new entry point into high-impact, personalized learning for all students, teachers and communities.

We set out to learn more about Place-Based Education and partnered with the experts at Teton Science Schools to cast a wide net for contributors. We committed to sharing what we learned in an ongoing blog series and three culminating publications.

In the first publication of this series—What Is Place-Based Education & Why Does It Matter? — we provide an overview of Place-Based Education including definitions, goals and benefits of PBE (*see Exhibit: "What Is Possible with Place-Based Education?" below*). Based on dozens of contributions to our "Learning & the Power of Place" blog series from guest authors all over the world, we share diverse examples of Place-Based Education in practice. These examples illustrate all of the different manifestations of Place-Based Education in concert with other innovative learning models such as project-based learning, work-based learning and social emotional learning. The overview also describes and provides examples of all the different settings in which place-based learning is possible — from urban settings, to rural areas, in parks and on college campuses, virtually and internationally.

Visit gettingsmart.com/ placebasededucation/ to download all the publications in the "Learning & The Power of Place" series.

WHAT IS PLACE-BASED EDUCATION AND WHY DOES IT MATTER?

GETTING SMART in partnership with eduInnovation & Teton Science Schools

As a next step, we pulled together lessons from across these implementations to inform the list of ideas for implementing Place-Based Education that follow.
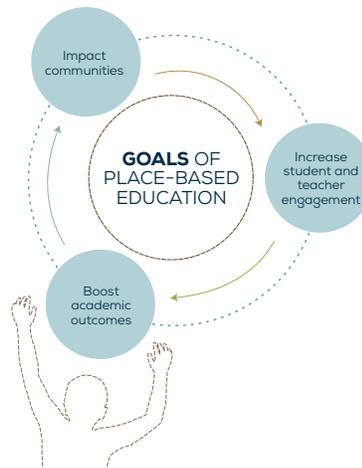
THE POTENTIAL OF

PLACE-BASED EDUCATION

With next-gen tools and learner-centered approaches, Place-Based Education can sit at the heart of 360° educational ecosystems where learning is seamlessly integrated within community functions, serving as a rich foundation for an informed, participatory and democratic society.
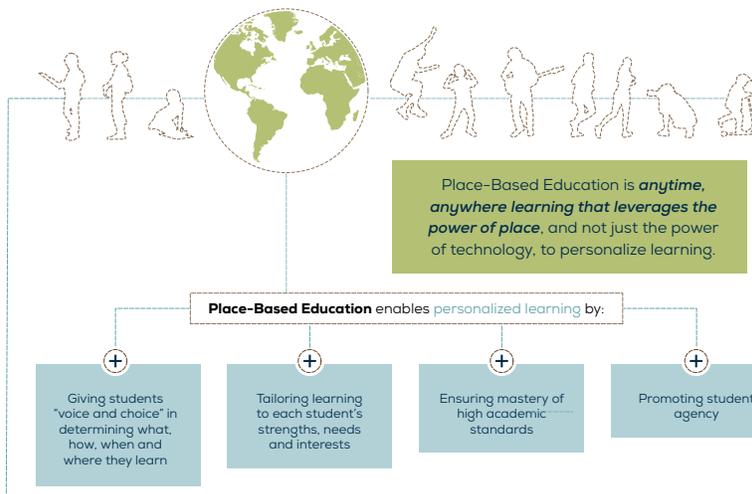
Place-based learning can truly happen anytime, anywhere — in cities, in parks, in your hometown, on a field trip, in a rural village, in your backyard, in your school.

"Learning & The Power of Place" is a Place-Based Education project--with a blog series, social media campaign, podcasts and publications to support implementation--that is designed to explore and share more about the potential of Place-Based Education.

GOALS OF PLACE-BASED EDUCATION

- Impact communities
- Increase student and teacher engagement
- Boost academic outcomes

PLACE-BASED EDUCATION (PBE)

connects learning to communities and the world around us.

Place–Based Education is *anytime, anywhere learning that leverages the power of place*, and not just the power of technology, to personalize learning.

Place-Based Education enables *personalized learning* by:

- Giving students "voice and choice" in determining what, how, when and where they learn
- Tailoring learning to each student's strengths, needs and interests
- Ensuring mastery of high academic standards
- Promoting student agency

BENEFITS OF PLACE-BASED EDUCATION

- Learning is grounded in local communities and contexts.
- The learning experience is student-centered and personalized.
- Learning is relevant and engaging.
- Social-emotional learning can be a priority.
- Lessons can be inquiry-based.
- Instruction can be interdisciplinary.
- Students can be challenged to see the world through ecological, political, economic and social lenses.
- Students can have more agency and autonomy – boosting motivation and persistence.
- Design-thinking can be encouraged.
- Students can meet deeper learning outcomes.
- Students can gain better appreciation and understanding of the world around them.

PLACE-BASED EDUCATION DESIGN PRINCIPLES

This working set of place-based learning design principles from Teton Science Schools can inform the development of place-based learning in any setting.

LOCAL TO GLOBAL CONTEXT
Local learning serves as a model for understanding global challenges, opportunities and connections.

LEARNER-CENTERED
Learning is personally relevant to students and enables student agency.

INQUIRY-BASED
Learning is grounded in observing, asking relevant questions, making predictions, and collecting data to understand the economic, ecological, and socio-political world.

DESIGN THINKING
Design thinking provides a systematic approach for students to make meaningful impact in communities through the curriculum.

COMMUNITY AS CLASSROOM
Communities serve as learning ecosystems for schools where local and regional experts, experiences and places are part of the expanded definition of a classroom.

INTERDISCIPLINARY APPROACH
The curriculum matches the real world where the traditional subject area content, skills and dispositions are taught through an integrated, interdisciplinary and frequently project-based approach where all learners are accountable and challenged.

With the emergence of project-based and personalized learning as the next step in school transformation, the time is right to take these approaches one step further by focusing the project and personalized learning on locally, regionally and globally relevant projects. With the increase in student agency, the students gain experience in the application of knowledge, and the community gains a massive resource in the human capital of willing and eager students wanting to improve the long-term health and well-being of the community.

PLACE-BASED EDUCATION + POWERFUL, PERSONALIZED NEW LEARNING MODELS = HIGHLY-FUNCTIONING DEMOCRACY OF INFORMED, ENGAGED CITIZENS

Our exploration into Place-Based Education revealed that teachers and communities are creating place-based opportunities for students in many different settings. Place-based learning is truly possible anywhere — from the most rural schools to the most urban ones and everywhere in between. We are just beginning to understand the possibilities for implemening and scaling place-based learning with the deliberate intention to boost equity, access and outcomes.

Photo Credit: Kristen Mueller-Sims, *Developing a Sense of Place Means a Deeper Connection to Learning*

SCALES OF IMPLEMENTATION

There are just as many ways to implement Place-Based Education as there are places in which to implement it. It's our hope that educators will be motivated by the countless ways in which they can put place-based learning into practice, rather than being overwhelmed by the possibilities. To prevent the latter, there are two useful ways to think about implementation — the Local-to-Global Model and the Place-Based Education Implementation Continuum.

LOCAL-TO-GLOBAL MODEL

It's helpful to think about the implementation of Place-Based Education with a concentric-rings model. Understanding of "place" begins first — with encouraging students to reflect on and better understanding themselves and their role in the community. Definitions of place then expand like concentric rings to classrooms, schools, communities, regions, nations and the world. By adhering to this concentric-rings model, learners continue to experience relevance as the scale moves farther and farther "out." Places can be interpreted through economic, socio-political and ecological lenses as students move from local to global — allowing for deeper transfer, application and understanding of content and skills.
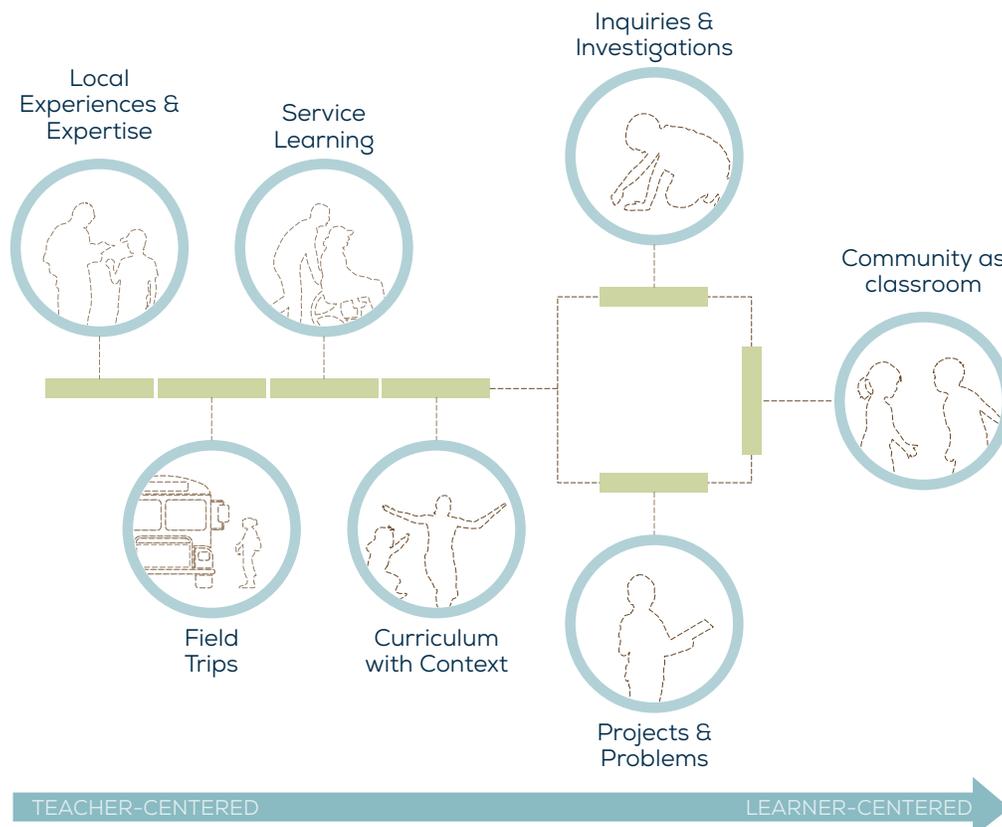

the world
regions
communities
schools
classrooms
ourselves

LOCAL   GLOBAL
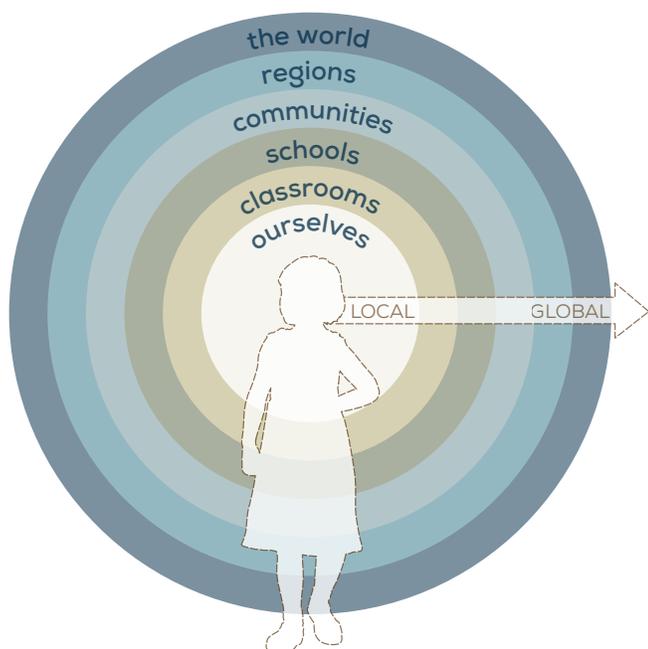
PLACE-BASED EDUCATION CONTINUUM

There are infinite pathways to learning through place. The continuum that follows is one way to organize these pathways, since implementation can vary from a single lesson or experiences to full-scale "community as classroom" model. The continuum is not meant to imply that one type of place-based learning is better than another. Instead, the continuum shows the range from place-based entry points to place-based learning as the primary organizer for the entire learning environment.

We believe in the potential of Place-Based Education to empower students with greater autonomy and more agency so that they can identify and take ownership over complex community and global challenges. While a full commitment to a learner-centered model is not a required component of Place-Based Education, it is an aspirational outcome. The graphic that follows shows how as Place-Based Education is implemented more deeply, the system evolves from one that is primarily teacher-centered to one that is primarily learner-centered.

"Place-conscious education […] aims to work against the isolation of schooling's discourses and practices from the living world outside the increasingly placeless institution of schooling. Furthermore, it aims to enlist teachers and students in the firsthand experience of local life and in the political process of understanding and shaping what happens there."

— David A. Gruenewald, "Foundations of Place: A Multidisciplinary Framework for Place-Conscious Education"

Local Experiences & Expertise

Service Learning

Inquiries & Investigations

Community as classroom

Field Trips

Curriculum with Context

Projects & Problems

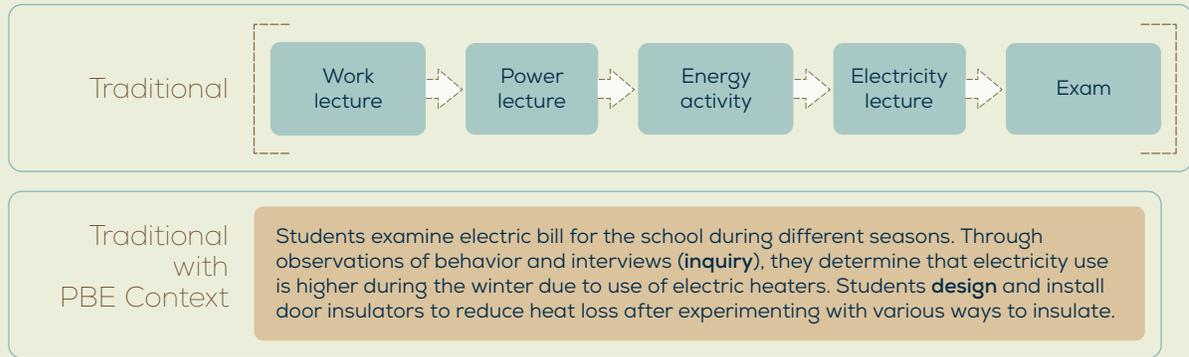TEACHER-CENTERED   LEARNER-CENTERED

EXHIBIT: INTEGRATING PLACE-BASED EDUCATION

As these examples of sequences illustrate, Place-Based Education is an approach to teaching any curriculum. It can be combined and integrated with many other approaches to learning based on the individual characteristics, needs and focus of the classroom or school.

TRADITIONAL SCIENCE INSTRUCTION AND TRADITIONAL SCIENCE INSTRUCTION INTEGRATED WITH PBE

Science Units | Unit One: *Work, Power, Energy, Heat* | Unit Two: *Magnestism, Electricity*

Traditional

Work lecture → Power lecture → Energy activity → Electricity lecture → Exam

Traditional with PBE Context

Students examine electric bill for the school during different seasons. Through observations of behavior and interviews (**inquiry**), they determine that electricity use is higher during the winter due to use of electric heaters. Students **design** and install door insulators to reduce heat loss after experimenting with various ways to insulate.

PROJECT-BASED LEARNING SCIENCE INSTRUCTION AND INTERDISCIPLINARY, PROJECT-BASED SCIENCE INTEGRATED WITH PBE

Science Units | Unit One: *Work, Power, Energy, Heat* | Unit Two: *Magnestism, Electricity*
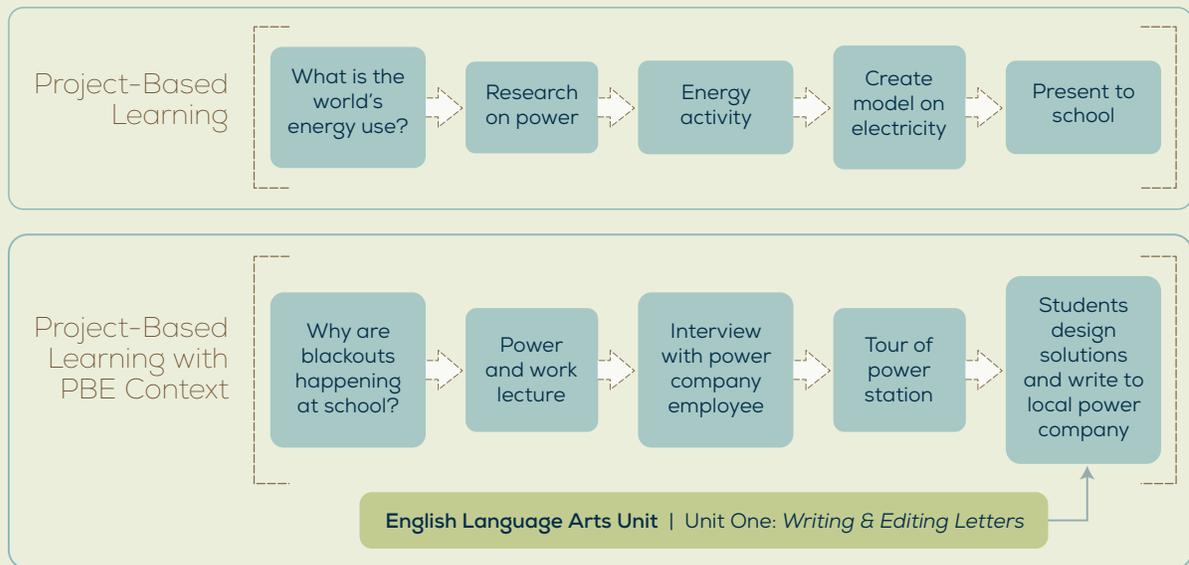
Project-Based Learning

What is the world's energy use? → Research on power → Energy activity → Create model on electricity → Present to school

Project-Based Learning with PBE Context

Why are blackouts happening at school? → Power and work lecture → Interview with power company employee → Tour of power station → Students design solutions and write to local power company

English Language Arts Unit | Unit One: *Writing & Editing Letters*

IMPLEMENTATION IDEAS

Photo Credit: Abel McClennen, *Cultivating Cross-Cultural Competence in Costa Rica*

The ideas for implementation that follow are based on hundreds of contributions to the #PlaceBasedEd social media campaign and dozens of guest blog contributions to the "Learning & The Power of Place" blog series. This list is not meant to be exhaustive, but rather to characterize the varied ways in which Place-Based Education can be implemented. They serve to guide and characterize the implementation of Place-Based Education in any classroom, school or community. They are presented as a continuum, because each level can be blended or integrated into the others based on the individual characteristics, needs and focus of the classroom or school.

In addition to all of the implementation ideas featured in this guide, see What Is Place-Based Education & Why Does It Matter for dozens of examples of Place-Based Education in practice, including Place-Based Education integrated with following learning models:

- Experiential Learning
- Learner-Centered Education
- Deeper Learning
- Service Learning
- Project-Based Learning
- Social & Emotional Learning
- Work-Based Learning
- Civic Learning
- Informal Learning

The guide also provides examples of Place-Based Education in these settings to demonstrate the diversity of place-based opportunities:

- Urban Settings
- Rural Areas
- Museums & The Arts
- State & National Parks
- Early Education
- Colleges & Universities
- Community Spaces
- International Implementation
- Virtual Experiences

LOCAL EXPERIENCES & EXPERTISE

Place-Based Education doesn't necessarily require a visit outside of the school or classroom. In fact, it's a helpful starting point to first get students thinking about their own classroom and school before expecting them to think deeply and critically about places outside of their regular daily experience. Because the classroom or school can be a microcosm of local, regional and global communities, it's useful to first challenge students to view their own classrooms and schools through the economic, socio-political and ecological lenses.

- In Four Ways Students Learn from School Gardens, Liz Wimmer shares the lessons that have grown out of the school garden created by the students at South Whidbey School District. She explains, "The South Whidbey School District followed students' interests and kept expanding and growing their gardens over a number of years. They received community and business support, and now the district runs its garden on an old sports field in addition to some smaller plots at the schools."

Another powerful entry point to Place-Based Learning is to invite local experts into the classroom to share their perspectives and expertise.

- In 5 Levels of Place-Based Learning Implementation, Nate McClennen explains: "As a teacher begins to consider how to pivot curriculum and instruction into a place-based approach, the easiest access point is to invite a community member into the classroom." Consider creating a community partner system like Crellin Elementary School has to achieve this level of place-based implementation. Place-Based Education is central to the curriculum and instruction at the pre-K through grade 5 at Crellin Elementary School. Students engage in a variety of projects in the local community and region including macro-invertebrate studies in local streams, data collection at fracking well sites, visits to local businesses, and a range of service-learning activities. The school has been featured in a number of films including the Schools That Work collection produced by Edutopia.
- In Five Tips for Testing the Place-Based Education Waters, Jennifer Pieratt highlights these possibilities for connecting students with local experts:
  - Experts coming into the classroom to talk with or present to students
  - Experts providing feedback on student work (virtual or in-person)
  - Experts or end-users connecting with students virtually (Skype, Google Hangouts, etc.)
  - Students going out to meet/shadow experts in the workplace

FIELD TRIPS
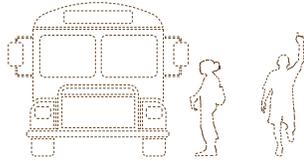
Along with bringing visitors into the classroom, schools and teachers have implemented field trips for as long as schools have existed. When planned and implemented well, field trips can increase student engagement, improve understand and drive deeper learning.

- In 4 Steps to Make Your Field Trip Matter, Carri Schneider highlights how educators can ensure field trips are more than just entertainment. She contends that teachers should:

  - **Plan with intent.** Field trips shouldn't be an afterthought. Teachers should begin with the desired learning outcomes before researching field trip opportunities. Teachers should explicitly ask the field trip hosts how they will engage students in meeting those outcomes, so they can set up the students for a successful visit.

  - **Frame the experience.** Teachers should prepare students by setting up the expectations for learning ahead of time. The bus ride is a good time to frame the goals for the field trip and to ask students questions about what they hope to see, learn and experience.

  - **Ensure experiential learning.** Schneider describes her experience on her daughter's kindergarten field trip to a working farm. "As soon as we arrived on the farm we visited, our hosts explained that the students were there to work and to learn. Right away the students were engaged as meaningful participants in the experience and not passive bystanders," Schneider explains. "The kids weren't just turning the compost to see how compost is created. They were turning and sifting the compost so they could work together to load it into the wheelbarrow and push it together into the vegetable garden to enrich the soil. In other words, the learning experience was authentic and not contrived. Look for field trips that prioritize experiential learning."

  - **Connect and reflect.** While the field trip hosts are responsible for ensuring that the experience is a valuable one, the teacher is the most important factor. The best way to do this is to connect the learning in the field trip to the regular classroom curriculum and to reflect on the experience in the broader context of your goals for learners.

- In Out of the Classroom, Off the Campus and into the Community, Jeffrey Partridge — through several examples from Capital Community College in Hartford, Connecticut — proves that field trips aren't just for K-12 students. He contends that Place-Based Education is just as important on college and university campuses. He argues, "Place-based activities engage students with coursework, their professors and each other — critical factors for student persistence in completing degrees. On top of all this, place-based education promotes pride-of-place and civic attachment, and that's good for communities."

- Liz Wimmer highlights how local business and industry can be a powerful source of local expertise. Check out the several great examples in Companies Committed to Community Learning Resources.

- For more on the importance of field trips, check out the EdNext Podcast – Ep. 59: Why Do Field Trips Matter? The podcast features Jay Greene, whose research on the Educational Value of Field Trips yielded

interesting results about the benefits of field trips including increases in critical thinking, historical empathy, tolerance and interests in the Arts. As Greene explains in the interview, field trips offer a "broadening experience that [take] students from often narrow worlds and exposes them to a much bigger world. And when they're exposed to a bigger world, they gain some appreciation for the diversity of that bigger world and more understanding of it."

We're just beginning to understand the potential of virtual, place-based learning to "bring the world" to students in the comfort of their own classrooms and homes. It's an approach to Place-Based Education that's ripe for exploration and consideration as an entry point into Place-Based Education.

- In 3 Ideas for Using Virtual Reality with Place-Based Ed, Emily Liebtag highlights that Virtual Reality (VR) can address inequitable access to place-based learning. She explains, that VR is "also important in creating an equitable opportunity for all students to experience different places. Financial, physical and geographical barriers can limit students from being able to see different parts of the world, their state or even their own community…. With the help of virtual reality (VR), learning through places can extend beyond when students are outdoors or visiting a particular location."

- In Around the World in 80 School Days, Thanks to Virtual Field Trips, Brandon Wislocki explains that "[h]igh-quality virtual field trips are curriculum-aligned, fully-produced programs that transport educators and students outside their classroom walls to meet experts and gain access to places far away from them, or sometimes exclusive locations that they wouldn't otherwise be able to visit." He describes four virtual field trips — to a poultry farm, to Ford's Theatre, to an industrial plant and to a space facility.

- Teton Science Schools and Grand Teton National Park partnered with Google to create a Google Expedition with a virtual hike exploring the geology and ecology of the national park. Using technology such as Google Expeditions, teachers from around the world can compare their places to other places as a way to extend the place-based approach. Using technology as a tool, Teton Science Schools is interested in researching how students can inquire into a place without physically visiting the place.

"In our desire to offer students a sense of place, we should not lose sight of the fact that they come to us with a sense of place. Our job is not to fill empty vessels but to engage complex individuals, to lead them to critically examine and discover. This puts faculty in the position of co-learner, for we cannot know our students' sense of place but must learn from them as they learn from us—as together we learn from the places and communities around us."
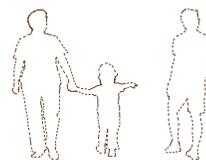
— Jeffrey Partridge, HigherEd Approaches to Empowering Students
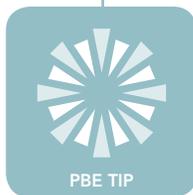
Consider perspective. It's important to realize that all people experience places differently. All perspectives of place are not the same, and students bring their own unique backgrounds and contexts to their experiences of place. Place-Based Education expert and scholar David Gruenewald's work combines issues of equity and social justice to form the concept of "critical pedagogy of place." Gruenewald believes that place-based pedagogy is needed "so that citizens might have some direct bearing on the well-being of the social and ecological places people actually inhabit." He shares the importance of Place-Based Education in various settings — from urban, multicultural places to environmental education and as a forum for social action. "In short," Gruenewald concludes, Place-Based Education means "making a place for the cultural, political, economic and ecological dynamics of places whenever we talk about the purpose and practice of learning."

Source: Gruenewald, D. A. (2003, May). The Best of Both Worlds: A Critical Pedagogy of Place. Educational Researcher, 32(4), pp. 3-12. Retrieved from http://links.jstor.org/sici?sici=0013-189X%28200305%2932%3A4%3C3%3ATBOBWA%3E2.0.CO%3B2-J

PBE TIP

SERVICE LEARNING

Many high schools have implemented community service or service learning requirements for high school graduation. While these required hours are not necessarily tied to specific curriculum, the ultimate goal of service learning is to integrate meaningful community service with instruction to enrich the learning experience, teach civic responsibility and strengthen communities. There are many community organizations and nonprofits that provide resources and structures to facilitate service learning. Service learning projects can be designed by the organizations that identify where support is most needed, or by teachers and students who design and implement their own service learning experiences.

• Brandon Gillette describes a place-based community service project in Kansas City, Kansas, in From 5 Kids to 25,000 Pounds of Fresh Fruit. The idea originated with a few students who wanted to make an orchard and which grew into a powerful partnership with a local nonprofit called The Giving Grove.

Gillette explains, "A number of Giving Grove employees as well as community members came in to work with the students, researching different options for trees, and also planning the orchard site itself. The students learned about different types of trees, different pests and potential problems, and then identified the best possible solutions of trees to plant, and a pest management solution. Situated at 1 of 8 middle school sites in the district, the students designed an orchard that included a dozen fruit trees. Now into the second full growing season, students are learning about plant reproduction, as well as energy and matter flows within organisms and ecosystems to ensure healthy trees and harvests. This middle school became just the first in the series of six schools over the next 12 months to research, plan, and plant edible landscapes. The sites are not limited to your traditional fruit varieties either. Orchards across the district include more recognizable apple and pear trees."

- Young Achievers Science and Math Pilot School serves K-8 students focusing on math, science, and experiential education. Young Achievers is committed to social justice and believes in an actively anti-racist education. Its curriculum uses rich resources of the "urban wilds" found in the neighboring Boston Nature Center, Arboretum, Franklin Park Zoo, and Forest Hills Cemetery. It seeks to teach its students to become stewards of the environment, translating its school-wide pledge "to make a difference in our school, our neighborhood, our city" into environmental activism.

- Listen to the audio field trip in Experiencing Place-Based Education at Teton Science Schools to hear from students about a place-based service learning project. Local public school students investigated the invasion of non-native wildlife in local waterways at Grand Teton National Park and presented their findings to the National Park Service.

Jennifer Pieratt offers practical advice for getting started in Five Tips for Testing the Place-Based Education Waters.

1. Start Small.
2. Plan for Deeper Learning.
3. Make Community Connections.
4. Identify Data Collection Methods.
5. Debrief It! It's important for students to process all that they saw and heard, share their learning with their peers, and construct a new understanding of the content through the lens of the real world.

PBE TIP

CURRICULUM WITH CONTEXT

Place-Based Education takes advantage of geography with the goal of creating authentic, meaningful and engaging learning. One way to meet these goals is to teach the curriculum within the context of relevant, real-world learning experiences inside your own community. This may be as simple as teaching the parts of a letter by writing a letter to the editor about an important issue or learning about a historical event by researching the impact on local people at the time. Or, students can engage in more involved efforts such as creating virtual tours or completing a geo-referenced community history project.

- Eric Davis, Aparna Rae, and Stephanie Leite describe the Global Learning Models (GLM) approach to curriculum with context in Preparing #LifeReady Students: Creating a Globally Sourced, Locally-Relevant Curriculum. Their approach prioritizes "relevant, applicable content" aligned to United Nations Millennium Development Goals (MDG), Sustainable Development Goals (SDG) and state standards. They describe the example of the STEAM course H_2O: "Students use technology to bring statistics to life. Learning about global water usage brings the world into the classroom, and data becomes real when students calculate their own daily water usage, compare it to average teenagers around the globe and attempt to carry their own water from a public water source to understand the privilege of having a working water tap at home. Projects range from creating high-tech infographics to low-tech water filters that could be used in a crisis. Whether taking the course in a brick and mortar school or completing it using our self-guided, self-paced digital platform, students experience empathy, reflect on their own consumption habits, and expand their academic skills in algebra, geology, and biology."

- In Personalized PBE and Virtual Reality Bring History To Life, Carri Schneider describes how New Tech Network students at Winton Woods City School District combined project-based learning, place-based learning and virtual reality to build virtual World War I museum exhibits as the culmination of a month-long project into the local, national and global impact of World War I. She explains, "Not only would students come away from this project with a better understanding of WWI and its implications broadly, but they would dive deeply into the personal stories of an individual soldier, nurse or similar person for an 'up close and personal' view through the eyes of a real person who experienced it."

- In Powerful School-Community Partnership Brings Learning to Life, Joe Weiss highlights Washington's Highline Public School District that provides an example of place-based learning made possible by powerful partnerships between the school district and local community resources. He describes, "The Seattle Aquarium and the City of Burien play roles in a program that offers high school students a mix of marine science and practical skills. Students in Highline's Marine Science Technology program learn in a hands-on environment. They study marine sciences including marine geology, physical oceanography and marine biology, and learn practical skills such as navigation, marine safety, watercraft stability and damage control, vessel terminology and marlinspike seamanship (the art of knot-tying, splicing and working with cable)…. Students work alongside biologists from the Seattle Aquarium each spring to conduct the annual beach survey. They gain valuable experience in intertidal ecology, invertebrate taxonomy and survey methodology."

INQUIRIES & INVESTIGATIONS

Inquiry-based learning is grounded in observing, asking relevant questions, making predictions and collecting data to understand the world through economic, ecological and socio-political lenses. This lens allows for individual truth-seeking based on evidence. Place-based learning and inquiry-based learning are a perfect match. This is also the point in the continuum of Place-Based Learning implementation when the real shift from a teacher-centered and learner-centered approach occurs. That's because once students are ready to move beyond the structured experiences of field trips and curriculum with context, the level of student agency and autonomy begins to increase. Students and/or teachers can lead an inquiry into a local topic to practice research and contribute to the local base of knowledge. For example, students participate in a study of the local stream to understand the quality of the water as part of a national Stream Team program.

- High Tech High makes extensive use of project-based learning. Although many of these projects are not explicitly related to the place where HTH is located, some are. One, in particular, has involved the study of local watersheds to investigate the impact of humans on these resources. After developing a basic understanding of the watershed, students developed inquiry questions and investigated these in small groups. Research led to the publishing of co-authored articles on a blog post that were shared on the San Diego Coastkeeper's website along with informational videos, infographics, and other components created by students. Elementary students have investigated their community and the role of bees in local ecosystems and the threats they are currently facing.

- In Open-Ended Exploration | Design, Make, Play at NYSCI, Douglas Moore highlights how community locations such as New York Hall of Science (NYSCI) can serve as a destination for engaging students in inquiry and problem-solving. Moore explains, "Using the Design, Make, Play approach, we developed a suite of five iPad apps — Noticing Tools — and a growing library of lesson plans and inspirations to leverage enthusiasm and engagement in creative making into an understanding of big ideas in mathematics and science through reflection and thoughtful questioning by a teacher, parent and peers."

- Check out the conversation between Tom Vander Ark and Google's Jaime Casap on Inequity and Inquiry in Season 2, Episode 27 of the Getting Smart Podcast.

- Teacher Lindsey Own offers some practical advice and tips for inquiry in the context of maker education in 3 Lenses for Developing Deeper Driving Questions.

Prioritize relationships. In 21 Tips for Connecting Learners to Their Community, Becs Boyd shares advice drawn for the experiences of real schools, students and teachers. Her suggestions empower educators with practical advice and insights on implementing Place-Based Education "as the starting point for learning and caring about the wider world." Her examples include:

- Nurture students' sense of Place by allowing plenty of opportunity for unstructured play or quiet time in a familiar natural "Place."

- Develop links between students and local representatives, charities and businesses to help identify manageable projects where students can have a real impact.

- Encourage "whole school" learning that involves all students across all ages and classes. One way of doing this is to adopt an annual theme, like the forests, rivers and mountains themes at Sunnyside School.

- Make use of a range of assessment methods. Materials from The Rural School and Community Trust on documenting and assessing Place-Based Learning are a helpful source.

PBE TIP
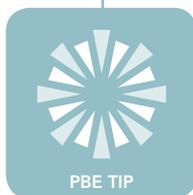
PROBLEMS & CHALLENGES

Problem-based learning is open-ended and encourages students to engage with a real problem that is often led by student interests and curiosities. While traditional inquiry-based lessons immerse students in exploring what "is," problem-based and challenge-based learning invite students to explore what "could be" and or what can be created. Beyond inquiry, students can also explore the design thinking process by identifying and creating solutions to local challenges.

- In Transcend the Classroom with Virtual Place-Based Learning, Louis Pienaar describes "a place-based interdisciplinary project where students drew from English, history and geography learning and applied their knowledge to a contemporary challenge in a local context." He explains, "Using virtual reality creation technology, we asked our students at Parklands College to design 'District 2020,' a hypothetical eco-city based on an area of Cape Town, South Africa, formerly known as District Six. Students were to virtually design District 2020 as an urban area emphasizing sustainability and food security and reflecting the area's social history."

- In Place-Based Education: Communities as Learning Environments, Nate McClennen describes the core components of inquiry and design at Teton Science Schools: "To celebrate creativity and innovation in the northern Rockies, Teton Science Schools hosts the Jackson Hole Mini-Maker Faire. In sharing the project, staff focused on creating a mind shift in PK-12 and adult learning environments to allow each to become a designer and innovator. Partnered with a number of local organizations, including Silicon Couloir, a nonprofit promoting the entrepreneurial ecosystem in the region, the maker-faire focuses the region on the need to bring design thinking principles into local learning communities. Many teaching tools and curriculum examples were featured at the event, including novel teaching of the scientific inquiry through card-tricks and investigating space-debris volumes in mathematics. The inquiry and design format supports the development of agency in all learners."

- In Developing a Sense of Place Means A Deeper Connection to Learning, Kristen Mueller-Sims outlines the Earth Force approach using a six-step "Community Action and Problem-Solving Process." The focus on civic engagement and problem-solving "helps learners to become active participants in their communities by conducting balanced research, building strong community partnerships and making decisions as a democratic group." Mueller-Sims shares the example of "Students in Albuquerque [who] used their water quality data to argue that the stormwater system in low-income neighborhoods is poorly designed and needed improvement. They are working with the U.S. Fish and Wildlife Service to incorporate their environmental justice findings into local land management plans."

PBE TIP
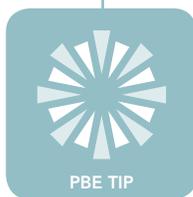
Remember every place is special. In Every Place is Special or No Place is Special, Anna Luhrmann highlights how her understanding of Place-Based Education evolved over time. "You do not need big mountains or wolf tracks to engage students in the community or get them excited about experiencing their place," says Luhrmann. "You just need to get out and explore."

COMMUNITY AS CLASSROOM

The final implementation level is where the community itself becomes the school. A school might transform an entire curriculum where the learning outcomes are the same, but they are accomplished by the students doing real work to make the community better (as in this student-run business in Casper, NE). In the younger years, the advent of nature-based PK-5 programs shows how the environment itself can be the school. Entire programs exist that use local places as the foundational context for learning. Excellent examples include Maine Coast Semester, City-as-School and School without Walls. With the advent of next-gen tools, competency-based approaches and project-based learning, the inside-out school model is now a reality and the ultimate manifestation of place-based education.

- For an overview of the fully-integrated place-based learning that happens at Teton Science Schools, see PhotoBlog | Teton Science Schools & The Power of Place-Based Learning.

- The Grand Rapids Public Museum School is the product of an ongoing collaboration between the Grand Rapids Public Museum, Grand Rapids Public Schools, Kendall College of Art and Design of Ferris State University, Grand Valley State University, the City of Grand Rapids, and Downtown Grand Rapids, Inc. Having worked initially with students in grades 6 and 7, a $10 million XQ grant is supporting its expansion to the high school grades. The school uses the community as a classroom and will draw upon local field experts, scientists, and researchers as students work to restore a local river.

- Located 25 miles east of Flagstaff, Arizona, the STAR School serves primarily Native American students from preschool through grade 8. The creators of the curriculum at the school strive to honor the cultural traditions of its students while at the same preparing them to succeed in non-Native institutions. It is the first all off-grid solar- and wind-powered school in the United States. Sustainable living is a way of life intrinsic to the community the school serves. The school promotes self-reliance, alternative building methods, and energy sources such as solar and wind power.

GETTING SMART

PODCAST

This episode of the Getting Smart Podcast was recorded on-location at Teton Science Schools. It shares the perspectives of the teachers, leaders and learners there with advice on how to implement PBE in your classroom, school, campus and community.

Getting Smart Podcast | Implementing Place-Based Education
http://www.gettingsmart.com/2017/02/podcast-implementing-place-based-education/

Seek support from the start. Bernard Bull offers 6 Starting Points for Place-Based Learning with useful advice on getting started. Among his suggestions, he advises that educators should:

PBE TIP

- **Start to Build a Network in the Community**. Begin by reaching out to various groups and people in the community who own or work in places that align with the curriculum. Reach out to these people. Share a bit of what you are trying to do. Invite them to serve as partners. Brainstorm with them.

- **Learn from Others Who Have Done It**. The web is full of teachers and schools that promote or embrace place-based learning. Reach out to the people and organizations with your questions. Learn from their challenges and successes. Get their input on your ideas and refine from there. Your community and resources will likely be different from their community and resources, but there are often transferable lessons.

- **Give it a Try**. Once you have the place, connections, feedback and internal support, give it a try. Invite students and other colleagues into the experiment, and treat it as that — an experiment. Learn from what works and what does not, then refine the next attempt based on what you learn.

CONCLUSION

"Place-based education is the process of using the local community and environment as a starting point to teach concepts in language arts, mathematics, social studies, science, and other subjects across the curriculum. Emphasizing hands-on, real-world learning experiences, this approach to education increases academic achievement, helps students develop stronger ties to their community, enhances students' appreciation for the natural world, and creates a heightened commitment to serving as active, contributing citizens. Community vitality and environmental quality are improved through the active engagement of local citizens, community organization, and environmental resources in the life of the school."

— David Sobel, "Place-Based Education:
Connecting Classrooms and Communities"

All teachers have the capacity to teach using a place-based approach. The examples we shared show how educators can implement Place-Based Education across the curriculum and in concert with innovative, personalized learning models. When they do so, students come away with more than mastery of the curriculum. They graduate with the experiences, skills, dispositions and mindsets to impact local communities and address global challenges.

It's our hope that the "local-to-global" model, place-based implementation continuum and related implementation ideas will empower educators with the realization that place-based learning is not only possible everywhere, but also worth doing everywhere.

FOR MORE INFORMATION

This guide is the second in a three-part publication series from Getting Smart. For additional publications in the series, including "What Is Place-Based Education & Why Does It Matter?" and "The QuickStart Guide to Professional Place-Based Learning," see http://www.gettingsmart.com/placebasededucation. For a collection of all of the contributions to the "Learning & The Power of Place" campaign from educators all over the world, see http://www.gettingsmart.com/categories/series/place-based-education/

Check out the hundreds of examples of Place-Based Education in action and share your own using #PlaceBasedEd on social media.

ACKNOWLEDGEMENTS