

# Teaching Ecological Citizenship Through An Earthen Early-Childhood Curriculum

Jenn Hooven, Mark Kissling, and Misty Woods

In the Hort Woods Heritage Grove—a forest of large, old oak trees on the campus of Penn State University, immediately adjacent to the Child Care Center at Hort Woods (“the Center”)—a magnificent Red-Tailed Hawk lives. The hawk can often be seen swooping through the sky over the Center, or gliding high above the Center’s children as they dig in the sand or play chasing games. The hawk’s form stands out most when the sky is a bright clear blue. Occasionally, children and teachers can even hear its sharp, lonely sounding call.

Without exception, anyone on the playground who spots the hawk will immediately shout out “hawk!” and everyone else, children and teachers alike, will spend a few moments trying to locate the smoothly gliding shape above. Sometimes it lands in the trees nearby, but most of the time it continues on out of sight, probably hunting for its next meal. Sometimes a beautifully patterned reddish-brown and white feather drifts down onto the playground or is lying beside the trail where classes explore in Hort Woods. The feather quickly becomes a special treasure from the hawk, to be stored in a classroom’s nature box for many months.

## Jenn’s Story

One day the hawk paid the children and teachers of the Center’s Sky House classroom, including me (Jenn), a very personal



Hort Woods Tunnel Arbor

visit. Perhaps it had been watching a small animal—a chipmunk or a rabbit—on the playground before we arrived. Perhaps it was just curious, but for whatever reason, the hawk came to our playground that day. We had just come outside and as the children were beginning to play, the hawk landed on our tunnel arbor where climbing plants were starting to cover the empty, six-foot frame. As it dove down, it must have come within ten

We began writing this article in 2017, when Jenn and Misty both worked at the Child Care Center at Hort Woods. In subsequent years, Jenn moved to become the Childhood Education Coordinator at the Arboretum at Penn State and Misty joined the early childhood education faculty in Penn State’s College of Education. In their current professional capacities, Jenn and Misty continue to collaborate with teachers and children from the Center. We have chosen to maintain the writing of this article in the present tense as we believe it best captures the energy and excitement of an earthen early-childhood curriculum.

*Jenn Hooven, Mark Kissling, and Misty Woods*

feet of our heads. The children stood frozen as this impressive creature landed on the top of the arbor. Its height was roughly a third of their own and its wingspan was nearly as tall as they were. Some could hardly contain their excitement while others were perhaps a bit nervous. A quick safety check flashed through my mind. Then I reasoned: hawks don't eat children!

The hawk folded its wings and fixed its feathers. Everyone remained wide-eyed and still as I crouched on the ground to make myself small and whispered the hawk's full name, introducing it with the awe it definitely deserved. For several full minutes of magic and wonder, the hawk watched us as we watched it. Finally, it flew off, back to Hort Woods. The children proceeded to scream and run around frantically for quite a while. Some even spread their arms wide and became the hawk themselves.

### An Emergent Earthen Curriculum

This story is an example of an *emergent earthen curriculum*: Jenn did not plan for the hawk's visit but she was ready to teach when it did descend to the arbor; equally important, but implicit, the students were ready to learn in that moment on account of their prior learning from Sky House's ongoing *planned earthen curriculum*. In an act of *ecological citizenship*, students were welcoming (and learning about) one of their natural neighbors, a fellow living being and member of what Aldo Leopold calls "the land-community," which expands beyond humans "to include soils, waters, plants, and animals, or collectively: the land."<sup>1</sup> In this article, we—Jenn, a supervising teacher, and Misty, the curriculum specialist, at the Center, and Mark, an associate professor of social studies education at Penn State and a parent over the past seven years of two children at the Center—consider how young children can learn from both planned and emergent curricula to be ecological citizens. We consider a planned curriculum to be that which a teacher, or group of teachers, thoughtfully prepares as a meaningful learning experience for students: *it is planned!* An emergent curriculum, in comparison, literally comes forth from students and teachers in their shared, in-the-moment wonderings: *it emerges!*

As we discuss below, planned and emergent curricula can support each other and, in combination, allow for and facilitate deeply meaningful learning. Although there are many important outcomes of this learning, we focus here on students learning to

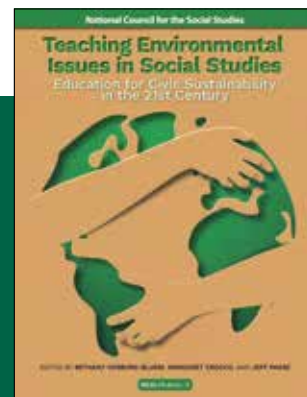
be ecological citizens. In prior work, Mark has theorized that an "ecological citizen recognizes the importance and interconnectivity of all living beings, human and non-human. This citizen understands that she or he [or they] is responsible to all beings and actively seeks sustainable futures for them."<sup>2</sup> As everyone is deeply tied to the Earth by the sheer fact of being alive (i.e., needing water, food, clothing, shelter, etc.), everyone can be—and, we argue, needs to learn to be—an ecological citizen.

The National Council for the Social Studies (NCSS) makes clear that the main aim of social studies education is the promotion of civic competence, "to help young people make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world."<sup>3</sup> A dynamic field of learning, teaching, and research has developed around this aim in the K-12 grades. The pre-kindergarten years, though, have not garnered as much attention in the literature of the field. This is slowly changing,<sup>4</sup> especially as early childhood education is becoming a more prominent focus in legislative discussions and policies at local, state, and federal levels. We seek to add our voices to this change that is founded on the notion that what happens in the earliest years of people's lives is paramount to their lifelong growth as citizens and community members.

At the same time, we seek to encourage the field of social studies education to take up more actively citizenship issues pertaining to the Earth, including environmental sustainability. Social studies has been primarily anthropocentric—focused on the doings of humans—to the exclusion of other living beings and "abiotic factors" such as air and water that make human life possible. As ecological crises like human-caused climate change become more pronounced, we are mindful of how citizenship education within social studies education has often overlooked explicit attention to ecological dimensions of citizenship. Mark's prior work on learning and teaching for ecological citizenship has sought to move citizenship from a predominantly political construct to one in which citizens have responsibilities to all of their communities, including the land-community.<sup>5</sup>

Thus, we strive here to highlight how young children at the Center, through an earthen curriculum that is planned and emergent, are learning to care for the wellbeing of themselves and others, including living

This article is adapted from a chapter by the authors in the upcoming NCSS e-book *Teaching Environmental Issues in Social Studies: Education for Civic Sustainability in the 21st century*, edited by Bethany Vosburg-Bluem, Margaret Crocco, and Jeff Passe. The e-book includes fourteen chapters that cover a wide range of environmental issues, and offer articles and lesson plans for the elementary, middle, and high school grades. The e-book will be the first in a new e-bulletin series launched by NCSS. E-bulletins can be downloaded free of charge by any NCSS members.



beings that are not human, as well as abiotic factors that are essential to healthy living. As the concept and reality of place contextualizes all living and learning, we begin by placing ourselves and our work. This placing includes noting our geographic setting, the Center's context, and the planned earthen curriculum of Sky House. We are mindful that not all childcare centers—or schools, more generally—have the same structures, values, and resources, which we think makes this attention to our placing even more important. As we write about what has become possible here, we hope readers will consider what is possible in their educational contexts.

After our placing, we explore two of Jenn's teaching stories that further exemplify an emergent earthen curriculum. We conclude with a discussion of how K-12 social studies, in its attempts to integrate environmental issues explicitly, stands to gain much by incorporating an emergent curriculum approach alongside of the planned curriculum.

## Placing Ourselves and Our Work

### *Central Pennsylvania and Penn State*

The three of us, as well as all of the children, families, teachers, and staff at or connected to the Center, reside in a region commonly known as Central Pennsylvania. One way of distinguishing the porous parameters of this area is to say that it is the middle part of the state, surrounding the geographic midpoint between the big cities of Philadelphia and Pittsburgh. This is a natural area marked by many ridges and valleys, with the Appalachian Mountain Range zig-zagging through it. One of the counties in this area is Centre County, which is in the center of the state, and that is where the Center is located.

The Center's building, erected in 2011, stands at the corner of Park Avenue and Allen Road on Penn State's University Park campus in State College, Pennsylvania. As mentioned above, the Center is next to the Hort Woods Heritage Grove that includes some trees that predate the founding of the Farmers' High School of Pennsylvania (in 1855), which later became Penn State due to the Morrill Land Grant Act of 1862.<sup>6</sup> The Center, normally with 180 enrolled children and 50 teachers and staff, is one of two childcare centers on the University Park campus. While many children at the Center are the children of Penn State employees and students, there are also children from the community whose families do not have direct ties to Penn State. As of July of 2016, all of the Center's staff members were employees of Penn State.

### *The Child Care Center at Hort Woods*

The Child Care Center at Hort Woods was designed with a vision in mind. It is a place for learning where the arts and nature come together. It is a setting that provides constant connections to the outdoors with easy access to small and large outdoor classrooms as well as a shared studio space for art exploration. The wonderful Hort Woods Heritage Grove is our back

yard. The building systems provide the opportunities for children and adults to learn about using nature's resources to light and ventilate our center and to understand conservation of water as well as to recycle almost everything.

This quote is excerpted from the Center's philosophy statement that is printed in the 2016 handbook for the Center's parents. The philosophy statement describes the vision for the work of the Center, noting how a carefully planned environment sets the stage for emergent learning, and this excerpt shows how the vision is explicitly earthen. We—Jenn and all of the Center's educators—believe that the education of young children should include large amounts of time playing, including exploring the outdoors and discovering the beauty of nature first-hand in all kinds of weather.

Similar to E. O. Wilson's notion of "biophilia," which holds that people have an "innate tendency to focus on life and lifelike processes"<sup>7</sup>, we believe that young children have an inherent curiosity and sense of wonder about the natural world. Thus, the Center's outdoor environment was intentionally built to provide a natural play-scape for the children to explore. Furthermore, lessons about nature are embedded in everyday routines—composting food waste after meals, nurturing plants in the rooftop garden with water collected in a rain barrel, and involving children in the operation of the building's natural ventilation system.

The relationships that teachers form with children are an equally important foundation for an emergent approach to curriculum development. Each day teachers are given countless opportunities to respond to children's inquiries. While not every question leads to a long-term investigation, children come to understand that teachers value their ideas and realize that their wonderings have the power to shape the curriculum. We, for example, are thrilled when we hear a child exclaim, "I have an idea!" Teaching children to listen to and show respect for one another's ideas builds each child's self-identity and further strengthens our learning community.

Early childhood education professor Elizabeth Jones wrote that an emergent approach to curriculum can "help children construct genuine knowledge for themselves and practice empathy for their fellow learners. In no other way can the inhabitants of a diverse world learn to share it peaceably."<sup>8</sup> We agree! Emergent curriculum is, at its heart, child-directed and led with thoughtful support from caring adults. Early childhood educators recognize that children have diverse strengths and interests that cannot be addressed adequately by a standardized and pre-packaged curriculum. Instead, when we respond to children's interests in the everyday moments, we open ourselves up to the opportunity for deeper learning and investigation. Intentional planning, which creates our planned curriculum, remains critical but it happens day-by-day in a dance of responsive teaching. Thus, at the Center, we describe our process as "planning for

possibilities,” such that the planned curriculum makes possible the emergent curriculum. (See the Appendix to this article for an example of this planning on page 26.)

Reflection is also a big part of this process. A few times each week—and sometimes daily—teachers in each classroom create a “curriculum reflection,” which is typically one digital page comprised of narrative text, pictures, and applicable excerpts of Pennsylvania’s learning standards for young children.<sup>9</sup> Teachers then send out these reflections via email to their colleagues and the parents and guardians of the classroom’s children. These curriculum reflections serve a number of purposes: engaging teachers in ongoing reflective practice; modeling reflective practice for pre-service student teachers; documenting and demonstrating how our curriculum meets both state and national accreditation standards; and communicating with families and newcomers to our program to help them understand the value of play and child-directed learning in early childhood. (See the Appendix for two examples of curriculum reflections on page 26.)

### *Sky House and Its Planned Earthen Curriculum*

The Center has five classrooms on its first floor for children up to three years old. There are five classrooms on the second floor for children who are three to five years old. One of these upstairs classrooms is Sky House, where Jenn is the supervising teacher and there are typically 20 children. Jenn works with two other Sky House teachers, as well as a number of Penn State students volunteering and learning to become teachers.

Since the Center opened in 2011, the Sky House teachers have planned and enacted a robust curriculum that has featured a strong earthen focus. As the supervising teacher, Jenn has led this effort, the roots of which date back to Jenn’s years teaching at Penn State’s Child Development Lab, which predated the Center. Some of Sky House’s seasonal and ongoing activities that support earthen aspects of the curriculum include:

- Going outdoors to play and explore in most weather conditions, including rain. Weather is always on the minds of young children spending time outside. In the winter, we explore the properties of snow by building snowpeople and making and throwing snowballs, and in the warmer weather we explore the rain by donning raincoats and boots brought from home or supplied by the school. We take note of the way rain changes our playground, filling in the usually dry creek bed feature and creating puddles and mud for us to play in. (See Jenn’s related curriculum reflection in the Appendix on page 26.)
- Watching a locally nesting pair of Bald Eagles on the Pennsylvania State Game Commission’s webcam for a short time each day in the spring and early summer. The eagles’ activities are broadcast in real time and together we observe and discuss their behavior as they take turns

sitting on their eggs and rearing their chicks.<sup>10</sup>

- Regularly browsing through a large bin of field guides for locally found animals, birds, amphibians, reptiles, fishes and plants. We use these guides to identify plants and animals we find outside or read about in books, and some children delight in literally pointing at page after page of animals while a teacher meticulously reads the name of each and every entry.
- Using binoculars and magnifying glasses to observe specific specimens, both inside and outside of the classroom. This includes carrying along these tools to the outdoors in search of something to investigate.
- Composting food after meals and cooking experiences. We participate in a university-wide composting program by collecting our uneaten food scraps and garden waste, which are turned into compost to be used on our campus. We make sure to connect this practice to the big idea of composting and decomposition as it happens in nature when we find a rotten log in the woods or see small insects assisting with the process of breaking down materials.
- Taking regularly scheduled nature walks in Hort Woods, where we allow the children to explore and follow their own leads to investigate items of interest such as fallen trees, old stumps, large sticks, flowers, and other things that catch their eyes or imaginations. Along the way, we pick up litter and discuss things such as seasonal changes and past experiences.
- Marking the passing of each season by visiting the nearby Childhood’s Gate Children’s Garden in the Arboretum at Penn State, where we take part in seasonally themed activities such as harvesting in the garden, making flower mandalas, filling bird feeders, and sipping warm cider on a cold day. While we are there, we are always sure to check the shadow position on the large, accurate sundial in the gardens.<sup>11</sup>
- Planting, tending, and harvesting several small food gardens each year. In the spring the children turn the earth and plant the seeds, and each summer we tend the gardens by weeding, watering, and observing the changes in the plants. We compost weeds and old plants and use compost in the gardens to help the new plants grow, thereby completing the circle. In the fall, we harvest our crops and share the fruits of our labor at meal times.
- Using nature materials collected on walks or on the playground as props for play and materials for art or obser-

vation. Keeping a nature box in the classroom allows us to respond to the natural tendencies of small children to collect “treasures” from nature such as sticks, pine cones, rocks, and acorns. These items are then used as loose parts to enhance play—becoming ingredients for soups and stews or decorations for block structures, or as authentic forest parts for small world play with accurate miniatures of native animals. Sometimes we use the sticks for weavings or paintings, or they may become part of a collage.

- Playing in our mud kitchen, where children dig in a small patch of earth and add water to create mud. The mud is scooped with trowels and collected in various old pots and pans. The children harvest herbs from the nearby herb garden and combine them with loose nature bits to create soups, potions, and mud pies. (See Jenn’s related curriculum reflection in the Appendix on page 26.)
- Responding to the built-in features of our LEED Platinum Certified building, such as opening slider screens on temperate days to let in air from the woods, recycling and composting as many materials as possible, collecting and using rainwater for flushing toilets and watering plants, and conserving energy by using lights and electricity only when necessary.

Some of these activities and learning experiences take place at specific times of the year, and others unfold across the entire year, as the particularities of the moment blend with student interests and our planned-curriculum hopes. Each year, though, offers a constant learning focus on animals, insects, plants, weather, and nature-at-large. Within this focus, there are recurring themes: wild versus tame; composition and decomposition; life cycles (birth, death, and in between); and so forth.

Across this entire planned earthen curriculum—which implicitly aligns with NCSS curricular themes **● TIME, CONTINUITY, AND CHANGE** and **● PEOPLE, PLACES, AND ENVIRONMENTS**, as well as Education for Sustainability Standard 2 calling for responsible local and global citizenship—we seek to attend to the children’s deep love of nature. We want them to have a positive connection to the nearby animals, plants, soil, water, and other aspects of the land-community, seeing themselves as loving neighbors (or, in social-studies-speak: ecological citizens). We are careful not to make the stakes of their connection too high or dire—that is, we feel that burdening them with, for example, the realities of anthropogenic climate change at their young ages does not make sense until the children’s affinities for nature have been allowed to flourish. Thus, we have a subtle emphasis on the children’s responsibilities to nature such that acting as citizens of the land-community becomes a way of living, not a prescription or burden.

### Jenn’s Teaching Stories about the Death of Animals

Every day, the Sky House children practice lining up and moving together as a cohesive group through the Center’s long airy hallways to get to the playground and enjoy some much-needed time outdoors. Along the way, the teachers expect to support skill development in areas such as self-management and responsible behavior, but on one particular spring morning as we exited through the doors, an unexpected lesson lay at our feet. Sometime during the night or very early morning, a small songbird had flown into one of the many large glass windows that provide us with views of the oak trees growing just outside our building.

As a teacher, unplanned moments such as these have the potential to really catch me off guard. Standing there looking down at the dead House Sparrow, I was presented with a choice: I could quickly whisk the little bird away, saving the children from possible germs, probable sadness, and an inevitable string of questions that would surely persist all week; or, I could guide them carefully around the bird until we had a chance to decide on what to do *together*. I took a deep breath and chose the latter.

One by one the children stepped carefully over the bird when they exited through the doors. As I donned a pair of gloves from the first aid kit and gently held that female bird in the palm of my hand, the children’s questions turned to observations and they went from wondering how and why to noticing the details. Questions such as “Is it dead?”, “How did it die?”, and “What kind of bird is it?” turned to statements like “It has claws!”, “I see its blood” and “Look at its beak!” As is typical for children this age, some were sad and others had a hard time understanding the permanence of the sparrow’s situation.

Eventually the conversation turned to what to do with the bird. Many of the children seemed surprised when I brought up the topic of composting. Although they were all familiar with the idea since we compost the food leftover from our meals each and every day, they had understandably not applied the concept to a dead animal. When I explained that burying the bird’s body under the ground would allow it to turn into dirt and help the plants and trees grow, the entire group of children embraced the plan wholeheartedly.

With a little bit of help, they dug a deep hole under one of the huge old oak trees with small trowels from our mud kitchen, and I carefully placed the bird at the bottom. In the rare moment of silence that followed, I let them look at that little sparrow in the bottom of the hole as long as they wanted before someone poured in the first shovel full of earth. When the ground was filled in again, they gathered small rocks to mark the place. Being the great collectors that they are, some flowers, acorns and other bits of nature also ended up on the pile. I wondered if a little bird was ever so perfectly honored in all of Hort Woods’ history. For many months after the incident, as we passed that particular tree, someone was sure to remark how well the plants and oaks were growing.

More recently, while supporting an art education doctoral student's research project centered on creating land art in the same little patch of forest, the children in Sky House stumbled upon the carcass of an Eastern Cottontail rabbit. Perhaps someone smelled it before they even saw it—I know most of the adults did. It was one of the hottest August months on record in Central Pennsylvania, after all.



A Sky House Child's Picture of a Dead Rabbit

As part of the project, each child was equipped with a small digital camera to document their work and take photos of nature. The rabbit quickly became the subject of many questions and also the children's artistic muse. Once again, I could have chosen to distract the children or encouraged them to explore another area or create art in a less provocative way, but instead we circled around the dead rabbit and talked about it together. We took time to notice its fur, bones, legs, and the small insects which were making a meal of what was left.

We spent a lot of time wondering how and why it died. The most probable scenario involved our resident Red-Tailed Hawk—the one that had visited us on the playground months before—and I listened as the children struggled with the idea that one animal must die for another to live. When the art project work was over and the children were choosing their favorite photos for an exhibition, at least one child chose a picture of the deceased rabbit.

### The Emergent Earthen Curriculum in Jenn's Stories

When Jenn was confronted with the sparrow's body on the ground, she had an in-the-moment decision to make. In choosing to acknowledge the bird as a group and explore why its body lay there, she was, in some ways, complicating her work as a teacher: she was deciding to face germs, sadness, questions, and so forth. But she was also prepared to do this—and so, too, were the children. Jenn was prepared in the sense that she had knowledge about the bird. She was also prepared in that, grabbing gloves from the first aid kit, she could carefully handle the bird's body in a way that was safe for her and the children. The

children, well-steeped in composting at meal time and using compost in their gardens, had a knowledge base to understand how the sparrow's body would decompose and burying it could serve surrounding plants and trees.

The turn in the children's initial reactions, from questions to statements, is a nice window into seeing the learning moment expand. A quick fascination turns into a growing inquiry, which ultimately leads to the action of burying—and in so doing, honoring—the bird's body. It is important to note, here, that this experience for the children is directly confronting an oft-taboo topic: death. It involves a dead bird previously unknown to the children, demonstrating how care for unknown others is important, and in doing this, it is cultivating roots for facing the death of known beings like a relative or a pet, a topic that the children will face (if they haven't already). Even though the sparrow was not known prior, Jenn made sure that there was time for students to see—to process—the bird's body in its grave before burying it. Then, burying the bird and marking its grave was another act of processing and remembering. Although it wasn't at the center of Jenn's thinking at the time, we see this act of caring so deeply for a non-human neighbor as an effort toward learning to be ecological citizens. Jenn and her students were responsibly attending to a fellow inhabitant of their local land-community.

We also see the learning of ecological citizenship in Jenn's second story, about the children encountering the dead rabbit. Once again, Jenn makes an in-the-moment decision to acknowledge the rabbit with the children. What ensues, then, is an inquiry about the rabbit's body, including how insects were eating the remains. Discussion of what might have happened linked the rabbit to the beloved resident hawk, prompting children to have to grapple with the idea of one animal eating another. While this knowledge of death is difficult knowledge, it also becomes an opportunity to demystify death, to a degree, and acknowledge how it is part of lifecycles and natural processes. This acknowledging and grappling, especially related to difficult-but-real topics, is essential to learning to care for fellow citizens and the communities that we share. Looking the other way and failing to act compassionately are not features of ecological citizenship.

The choices that Jenn describes in these two stories gave the children in her classroom a deeper understanding of life and death than would traditional materials marketed for use in early childhood classrooms. These choices are responsive to the children's immediate lives as well as their developing interests, and through these learning experiences, the Sky House children now take pride in their role in protecting and preserving the special outdoor place that surrounds the Center. In addition to being powerful implicit examples of the Inquiry Arc of NCSS's C3 Framework—particularly asking and answering meaningful questions about the dead animals (Dimension 1), applying the familiar concept of decomposition (Dimension 2) and using descriptive evidence (Dimension 3) to understand the

situation, and taking action through burial and artistic display (Dimension 4)—these stories show how taking care of the Earth can be made more tangible by cultivating an appreciation for the plants and animals living just outside our door. This, we feel, is an important foundation for ecological citizenship.

### Final Comments: Teaching Ecological Citizenship in Early Childhood and Beyond

The process of learning to be an ecological citizen begins at birth and continues throughout a person's life. In this article, through description of teaching and learning at the Center, specifically through Sky House, we have focused on some of the earliest years of this process. With Jenn's stories of the hawk's visit and the dead bodies of the sparrow and rabbit, we seek to highlight how children are learning to be ecological citizens—caretakers of themselves and all other living beings—from their immediate experiences and natural curiosities. Further, we highlight that this emergent learning is strongly supported by the planned earthen curriculum of Sky House, which has students learning about the natural world and their relationships to it through intentional lessons. In some ways, this planned learning provides a foundation for the emergent learning, but the emergent learning also provides a place-based, real context for the planned learning.

In sounding the call for an emergent earthen curriculum, we wish to note that it does not only apply to early childhood education. As all students (and teachers) are embedded in deep and rich ecological contexts—for example, the food they eat comes directly or indirectly from the Earth—an emergent curriculum does not need to be created; rather, simply recognizing the realities of living immediately implicates the Earth. This recognition is at the heart of early childhood education—but why isn't it typically at the heart of schooling in the older grades?

Indeed, the notion of an emergent curriculum is central to the practices and research literature of early childhood education but it largely fades as the ages of students increase. We wish to end this article with a challenge to K-12 social studies teachers: don't lose sight of how your curricula can be both earthen *and* emergent. When students exit the classroom and school, they don't leave behind social studies. They live social studies, and this living provides a great, if not the best, source for related social studies inquiry in the classroom and school.

This call is not an attempt to eschew planned curriculum. Just as the planned earthen curriculum in Jenn's classroom makes possible in many ways its complementary emergent earthen curriculum, so, too, the planned curriculum in older grades can facilitate, contextualize, and benefit from an attentive emergent curriculum. Many social studies teachers can accomplish this in the form of study of current, ongoing issues that are local to students and the school. This kind of study is not typically framed in terms of emergence, but that is what it is. It attends carefully to the unfolding of students' lives. Doing this in a way that acknowledges the ecological contexts in which students live is even better! 🌍

### Notes

1. Aldo Leopold, *A Sand County Almanac* (New York, NY: Oxford University Press, 1949/1966), 239–240.
2. Mark Kissling and Angela Calabrese Barton, "Interdisciplinary Study of the Local Power Plant: Cultivating Ecological Citizens," in *Social Studies Research and Practice* 8, no. 3 (2013), 130.
3. National Council for the Social Studies, *National Curriculum Standards for Social Studies: A Framework for Teaching, Learning, and Assessment* (Silver Spring, MD: National Council for the Social Studies, 2010), 9.
4. Stephanie C. Serriere, "Social Studies in the Early Years: Children Engaging as Citizens through the Social Sciences," in *Handbook of Early Childhood Care and Education*, eds. C.P. Brown, M.B. McMullen, and N. File (Malden, MA: Wiley Blackwell Publishing, 2019), 377–400.
5. Kissling and Calabrese Barton, op. cit.; Mark Kissling, "Place-Based Social Studies Teacher Education: Learning to Teach for Ecological Citizenship While Investigating Local Waste Issues," in *Rethinking Social Studies Teacher Education in the Twenty-first Century*, eds. A. Crowe and A. Cuenca (Gewerbstrasse, Switzerland: Springer International Publishing, 2016), 321–338; Mark Kissling, Jonathan Bell, Ana Carolina Díaz Beltrán, and Jennifer Myler, "Ending the Silence about the Earth in Social Studies Teacher Education," in *Social Studies Teacher Education: Critical Issues and Current Perspectives*, ed. C.C. Martell (Charlotte, NC: Information Age Publishing, 2017): 193–220; Mark Kissling and Jonathan Bell, "Teaching Social Studies amid Ecological Crisis," in *Theory and Research in Social Education* 48, no. 1 (2020), 1–31.
6. In August of 2021, Penn State made public an "Acknowledgement of Land," which reads: "The Pennsylvania State University campuses are located on the original homelands of the Erie, Haudenosaunee (Seneca, Cayuga, Onondaga, Oneida, Mohawk, and Tuscarora), Lenape (Delaware Nation, Delaware Tribe, Stockbridge-Munsee), Shawnee (Absentee, Eastern, and Oklahoma), Susquehannock, and Wahzhazhe (Osage) Nations. As a land grant institution, we acknowledge and honor the traditional caretakers of these lands and strive to understand and model their responsible stewardship. We also acknowledge the longer history of these lands and our place in that history." For more information, please see: <http://equity.psu.edu/acknowledgement-of-land>
7. Edward O. Wilson, *Biophilia* (Cambridge, MA: Harvard University Press, 1984).
8. Elizabeth Jones, "The Emergence of Emergent Curriculum," in *Young Children* 67, no. 2 (2012), 66.
9. Pennsylvania's Learning Standards for Young Children in Pre-Kindergarten can be found at: <https://www.pakeys.org/uploadedContent/Docs/Career%20Development/2014%20Pennsylvania%20Learning%20Standards%20for%20Early%20Childhood%20PreKindergarten.pdf>
10. The website for the Pennsylvania State Game Commission's eagle webcam can be accessed at <http://www.pgc.pa.gov/Wildlife/WildlifeSpecies/BaldEagles/Pages/default.aspx>.
11. The website for the Childhood's Gate Children's Garden can be accessed at <https://arboretum.psu.edu/involvement/make-a-gift/major-gifts/childrens-garden/>

An Appendix to this article follows on page 26.

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## APPENDIX: CURRICULUM PLANNING AND REFLECTIONS

### Sky House Emergent Curriculum Thread Planning

**Emergent Curriculum Thread Planning**  
 Weeks: 2-27 + 3-13-17

<p><b>Inquiry/Focus:</b> <i>Animals Wild + Tame</i></p> <p><b>Evidence (quotes, observations, anecdotes):</b>                  - Children are playing pets in the dramatic play area                  - Children are enjoying looking at the "Shy House Pets" book over and over</p>	<p><b>Inquiry/Focus:</b> <i>Friendship</i></p> <p><b>Evidence (quotes, observations, anecdotes):</b>                  - Some children are engaging in name calling - we want to support more positive interactions</p>
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Who: Jenn will support the

What: *closure of the Ensign's Nest on the iPad w/ more resources about Eagles + chicks + eggs.*

Who: *Roxy would like to continue*

What: *the track mold making activity outside at small group time.*

Who: *Roxy would like to support the children to make*

What: *a friendship book with positive words*

Where: *that describe each friend.*

Who: *Roxy will continue the partnership painting activity by setting up the easel in the small studio.*

Who: *Jenn will fill the sensory table with large chunks of ice and water along w/ toy polar animals to support polar bear pretend play.*

Who: *Jenn will plan a PBIS picnic since we are almost done filling up our Stars board recognizing safe respectful + helpful behavior.*

Who: *Cindy will support the children to welcome and thank a guest reader for Dr. Sues's birthday. They will talk about how to be friendly + make a thank you card.*

Who: *Jenn will support the children to welcome and thank a guest reader for Dr. Sues's birthday. They will talk about how to be friendly + make a thank you card.*

**Ongoing Activities:**


Letter Of The Week: P + Q    Guessing Jar: Hearts    "Me Stories" Literacy Activity \_\_\_\_\_    ELL Support: Animal Names

Signs Of The Month: Rhyming Signs    PBIS \_\_\_\_\_    Walks: \_\_\_\_\_    Other: \_\_\_\_\_

### Jenn's Rain Play Curriculum Reflection

Sky House Curriculum Reflection  
 Rain Play  
 Friday, June 3, 2016

Way back in the days of PSU's Child Development Lab School in Henderson Building (i.e., the prior iteration of the Child Care Center at Hort Woods), we began a rain curriculum. Together the teachers and children explored the idea of studying and learning about rain: how rain is made in the clouds, where the rain travels to when it leaves here, and just how it gets back up there so high in the sky. Very quickly, we realized that we also wanted to EXPERIENCE the rain: how it feels on our skin, how we can scoop it, how we can save it, what it looks like reflecting the clouds in the puddles at our feet, and so on. Teachers and parents know that children and water go together like bees and flowers. One is drawn to the other like a force of nature. When children go outside in the rain, we noticed that they LEARN. They learn about weather, they learn about the properties of liquids, they learn about sharing a resource and they CONNECT—with nature, with science, with themselves, and with each other. Today, on our wonderful playground here at the Center, we've continued the rain curriculum and find that it is just as engaging as ever. - Jenn



This curriculum supports the PA Early Learning Standard:

**ALL.1.PC.A Explore and ask questions to seek meaningful information about a growing range of topics, ideas and tasks.**

- Utilize senses to explore and learn from the environment
- Show interest and interact with others about their work or actions
- Demonstrate interest in new materials and experiences that are introduced into the classroom
- Ask questions to understand something (e.g. "How does that work?")

### Jenn's Mud Kitchen Play Curriculum Reflection

Sky House Curriculum Reflection  
 Monday, June 13, 2016  
 Mud Kitchen Play

A couple of years ago I helped to set up two mud-kitchens at Hort Woods. The idea was spurred on by International Mud Day, a worldwide event for children organized by the World Forum Foundation's Nature Action Collaborative for Children (NACC). We've extended the idea of mud play for children beyond a one day experience and now provide this activity for small groups on a regular basis in the warm summer months. Children gain and learn a lot by immersing themselves (literally and figuratively) in nature. Together, they use social skills, as well as their imaginations to create mud pies, soups and potions by adding herbs and bits of nature to the earth and water mixtures. On this particular day these three friends delighted in "cooking" as well as "bathing" their muddy feet in the big metal bucket over and over again.

-Jenn



This activity connects to the PA Early Learning Standard:

**2.E.PC.A.1 Sort different types of earth materials.**

Explore rocks, soil and sand using a hand magnifier

Answer questions about observations of earth matter (use sieves and strainers to explore earth materials)

**2.E.PC.A.4 Identify a variety of uses for water.**

Identify ways water can be used (drinking, washing, watering plants, cooking and more)

Explore water during play