



## The Lawrence Hall of Science Outdoor Learning Menus: Practical & Imaginative Implementation

The message to reopen, reinvest, and reimagine is everywhere. Still, increasing numbers of districts are using pandemic relief dollars to address only practical needs. Outdoor learning is the practical and the imaginative solution in one. If districts are looking for sustainable improvements to support teaching, learning, and engagement that live beyond this tumultuous moment, outdoor learning is the answer.

**“This is our moment to ensure that we reopen, reinvest and reimagine our schools differently and better than ever before...these next months and years will determine the trajectory of success for millions of students in our care.”**

**Miguel Cardona, U.S. Secretary of Education**

Below is a sample of menus that represent Lawrence Hall of Science-curated, sustainable approaches that simultaneously attend to multiple, strategic areas of implementation: support to students; professional learning for teachers and administrators; and, systems-level reflection and capacity building. The rationale for attending to these three areas is built upon systems and organizational change theory: the improvement of one area is not likely to yield lasting outcomes. The improvement must happen at the student and family level, staff level, and overarching systems level.

These menus coordinate research-based best practices in outdoor learning across a district system to accelerate learning, and to achieve district goals, such as:

- supporting equity, racial justice, culturally responsive practices;
- enhancing physical and mental health, learning and social-emotional wellness;
- centering learning experiences on local places and community issues; and,
- enhancing, sustaining, and improving distance learning/independent study.

### How to Use the Outdoor Learning Menus

1. Within each Lawrence Hall of Science outdoor learning menu sample, there is a set of sample district goals at the beginning of the menu to help align the corresponding activities and strategies with your district's longer term vision for equitable, engaging teaching and learning.
2. Identifying the goals that align best with your district's goals will help you to select the menu sample that suits your district's overall approach.
3. Each menu contains a set of implementation strategies and activities, organized into three strategic areas of implementation: support to students; staff support and professional learning; and, systems-level reflection and capacity building.
4. The menus serve to provide a starting point for meaningful consultation and partnership with the Lawrence Hall of Science to provide a healthy, safe, and engaging way to support your children. Many of our programs and services can be coordinated and delivered immediately, while a few require planning and implementation to provide an increased volume of support to our district and school partners.

<b>MENU A:</b> <b>Immediate Needs</b>	<b>MENU B:</b> <b>Content Integration</b>	<b>MENU C:</b> <b>Place-based &amp; Community Partners</b>
<b>District Goals</b> <ol style="list-style-type: none"> <li>1. Accelerated learning</li> <li>2. Social-emotional health and wellness</li> <li>3. Professional learning</li> <li>4. System-wide capacity building</li> </ol>	<b>District Goals</b> <ol style="list-style-type: none"> <li>1. Meaningful family and community engagement</li> <li>2. Content integration for advancing learning</li> <li>3. Professional learning</li> <li>4. System-wide capacity building</li> </ol>	<b>District Goals</b> <ol style="list-style-type: none"> <li>1. Equity and culturally responsive practices</li> <li>2. Local and community problem-based learning</li> <li>3. Meaningful family and community engagement</li> <li>4. Professional learning</li> </ol>
<b>Direct Service to Students</b> Afterschool Outdoor STEM Accelerated Learning	<b>Direct Service to Students</b> Family Outdoor STEM Engagement	<b>Direct Service to Students</b> Youth-led Community Science Research
<b>Staff Support/ Professional Learning</b> Modeling Effective Practices: Embedding Outdoor Learning	<b>Staff Support/ Professional Learning</b> Outdoor Learning for Creating Coherence Across Subjects	<b>Staff Support/ Professional Learning</b> Nurturing Teacher/Community- Based Partnerships
<b>Systems/Organizational Capacity Building</b> District Outdoor Learning Implementation Planning	<b>Systems/Organizational Capacity Building</b> Assessing and Creating District-level Practices for Outdoor STEM Learning	<b>Systems/Organizational Capacity Building</b> Outdoor Learning Analysis & Partnerships

**Menu A: Immediate Needs.** Systemic, district-wide outdoor learning prominently includes: engaging students in high-quality STEM learning experiences in their schoolyards and local community through extended learning opportunities; supporting teachers to build their expertise through coaching and model lessons to incorporate outdoor learning into their practice; and, building a supportive district ecosystem to ensure outdoor learning for all through the outlining of a district vision, plan, and policies to support systemic change. All of these customized supports and services can be provided by the Lawrence Hall of Science.

### District Goals

1. Accelerated learning, support for unfinished learning, and increasing extended learning time.
2. Enhancement of physical and mental health, social-emotional learning and wellness; and, academic learning.
3. Staff Support/Professional Learning: Improving and sustaining educator capacity.
4. System-wide capacity building: Strengthening the capacity of districts, schools, and educators to address priority areas, opportunity/access, and support systems.

### Direct Service to Students

**Afterschool Outdoor STEM Acceleration Learning.** A program for engaging students (pre-K through 12th grade) in ongoing, outdoor STEM learning experiences, designed to complement the existing school-based extended learning program and classroom-based instruction. Experiences offer age appropriate STEM learning that develop student science identity and provide opportunities for the development of student social-emotional competencies. The program utilizes culturally responsive pedagogy and is designed and facilitated using research-based effective teaching and learning practices.

## Staff Support/Professional Learning

**Modeling Effective Practices: Embedding Outdoor Learning.** Teachers observe model lessons facilitated with their students by instructional coaches, followed by one-to-one coaching sessions to deconstruct the standards-aligned, outdoor, phenomenon-based science learning experiences. The use of observational tools and coaching for teachers and district leaders improves teacher capacity to assess student conceptual understanding and engagement in outdoor learning.

## Systems/Organizational Capacity Building

**District Outdoor Learning Implementation Planning.** Support for district leaders to build a district-wide plan for the prioritization and implementation of outdoor learning and environmental literacy. Plans will take into account district contexts/priorities, current realities, existing and potential community partners, place-based environmental resources, issues, and injustices, etc., to create a district vision for outdoor learning and a plan to enact that vision. Creation and articulation of an outdoor learning vision and plan will outline the range of instructional approaches, underlying philosophies, infrastructure, and policies to support systemic change.

**Menu B: Content Integration.** A model for supporting regular, ongoing, high-quality outdoor learning student experiences. A coherent student learning experience builds on student access to STEM and outdoor learning through meaningful engagement with students and their families. Professional learning supports identifying and integrating content areas to support a coherent student learning experience. Systems-level shifts focus on building a representative team of stakeholders to support district decision-making and creating a culture for improvement and equity across the district, highlighting outdoor learning. All of these customized supports and services can be provided by the Lawrence Hall of Science.

## District Goals

1. Meaningful engagement with families and partnerships with community based organizations.
2. Content integration: Advancing student learning through coherence across content areas.
3. Staff Support/Professional Learning: Improving and sustaining educator capacity.
4. System-wide capacity building: Strengthening the capacity of districts, schools, and educators to address priority areas, opportunity/access, and support systems.

## Direct Service to Students

**Family Outdoor STEM Engagement.** Families collaboratively investigate, experiment, and problem solve STEM in the outdoors, complementing the district's adopted science curriculum. Program offerings feature expertly designed mobile exhibits and experiences to support learning and build participants' critical thinking skills in ways that can be applied across content areas.

## Staff Support/Professional Learning

**Outdoor Learning for Creating Coherence Across Subjects.** The outdoors is centered to inspire learning and capitalize on the interdependence of Mathematics, Science, and Language practices. Teachers collaborate in grade band groups to build their understanding of the relationships and convergences found in the standards and examine their grade band curricula across the subjects to identify outdoor learning opportunities.

## Systems/Organizational Capacity Building

**Assessing and Creating District-level Practices for Outdoor STEM Learning.** A "vertical" team that represents leadership throughout the district and various stakeholders explore relevant research and practices for supporting equitable designs for STEM learning, highlighting outdoor learning. This model focuses on distributed leadership, customized expert assistance with ongoing feedback on investment of resources and building the capacity of the capacity builders, and explicit attention to the full participation and advocacy of those on the margins of equitable STEM learning.

**Menu C: Place-based & Community Partners.** A community-serving, social justice outdoor learning model with students researching where they live and learn. Teachers are supported with professional learning that helps them to bring local/social, real world issues and solutions into their daily curricula through teacher/community-based organization partnerships. The district examines opportunities and assets to support the development of district-level practices that advance racial and social justice in outdoor STEM learning. This includes engaging local partners to create more locally relevant learning, district-wide. All of these customized supports and services can be provided by the Lawrence Hall of Science.

### District Goals

1. Equity, racial justice, culturally responsive practices and implicit bias.
2. Centering learning experiences on local and community problem-based learning.
3. Meaningful engagement with families and partnerships with community based organizations.
4. Staff Support/Professional Learning: Improving and sustaining educator capacity.

### Direct Service to Students

**Youth-led Community Science Research.** Highly engaging programming, in a school-day or afterschool setting, for secondary students that enables them to connect STEM content with relevant social, environmental, and public health issues, while also developing competency with important NGSS-aligned science and engineering practices. To ensure high levels of student interest, research projects are specifically designed to address pressing, local environmental and social concerns, which enables students to more readily connect their learning to lived experiences.

### Staff Support/Professional Learning

**Nurturing Teacher/Community-based Partnerships.** Teachers work with community-based partners in grade band groups to build their understanding of the relationships and convergences found in the standards and examine their curricula across the subjects to identify outdoor learning opportunities. Teachers and community-based partner educators design and implement a coherent, standards-based outdoor learning experience for their students.

### Systems/Organizational Capacity Building

**Outdoor Learning Landscape Analysis & Partnerships.** Building an understanding of current outdoor learning opportunities, where inequities in implementation exist, gauging the attitudes and priorities of the community, and highlighting strengths, inequities, and opportunities for growth within the district. Current and potential partners convene and plan for the development of a consistent, cohesive, high-quality plan for outdoor learning partnerships to accomplish district-wide goals.

Development of this resource funded by



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