

# Environmental and outdoor education: key to equitably reopening schools in Utah



Utah schools and educators have demonstrated tremendous adaptability since schools closed and moved to online instruction this March. Many districts have worked hard to ensure that students could access materials related to school-day instruction in addition to providing meals and additional support. These efforts show how committed Utah educators are to supporting their students in this time of need and ensuring that students have equitable access to resources. Many local districts have gone above and beyond to mitigate inequities and “connect the unconnected.” While there is still work to be done, these efforts should be lauded. Even with these measures, achievement gaps are expected to widen due to a so-called “COVID slide” **(1)**. Families face continued challenges as schools prepare to reopen with possible staggered start times, hybrid in-person and virtual learning structures, and the potential for rolling closures during peak illness.

All of this is happening as society struggles with the reality of entrenched racism exposed by the murders of Ahmaud Arbery, Breonna Taylor, George Floyd, Rayshard Brooks and too many other people of color. Locally, there has been unrest following the shooting of Bernardo Palacios-Carbajal. COVID-19 is also disproportionately impacting the Navajo Nation, creating additional burdens for Indigenous students. **(2)** Many students will be returning to school with newfound knowledge of inequities and, likely, many questions.

Reopening schools will require new or modified procedures for everything from classroom configuration and educational plans to arrival and departure schedules, transportation, and health screenings. Schools will need to attend to more than just physical well-being and academic learning. COVID-19 disruptions are causing a dramatic increase in childhood trauma, creating additional strain on educators and families. **(3)** Community-based environmental and outdoor education programs can help to address these dire needs and discrepancies through innovative partnerships, educational investments, and policies.

**The outdoors is a resource for learning, engagement, and health, and it should be available to all, not just a privileged few. Experiences in nature and greater access to the outdoors is associated with reduced stress, greater mental and physical health, and well-being. (4)**

**Utah’s community-based environmental and outdoor education programs offer some solutions to challenges schools face now and in the future. As with any strategy, these recommendations are not without hurdles, nor will they fully address all of the challenges facing schools. But environmental and outdoor education programs present some promising tools for schools and districts in Utah and are essential partners in creating a more just and sustainable future for all.**

**There are several specific areas where Utah’s environmental and outdoor education programs can help schools, students, teachers, and families detailed in this report. Including:**

- Extending and Expanding Learning Spaces into the Community
- Using the School Grounds for Learning
- Supporting Teaching and Learning
- Creating Healthier Learning Environments
- Virtual Teaching and Learning
- Supporting At-Home Learning
- Specific, Utah-based recommendations

## Definitions

**Environmental Education** is an interdisciplinary educational process that helps people learn more about individual and community connections to natural systems, fostering environmental literacy and civic engagement

**Outdoor learning, or outdoor education,** refers to a broad set of activities that include discovery, experimentation, learning about and connecting to the natural world, and engaging in environmental and recreational activities in an outdoor setting.

An **outdoor classroom** is an external shelter or space within the school grounds which creates a practical area for outdoor learning.

## Sources:

**(1)** Collaborative for Student Growth, COVID-19 Slide <https://bit.ly/2W4AkWW>

**(2)** SL Tribune, <https://bit.ly/2Zcs6Og>

**(3)** National Child Traumatic Stress Network, Trauma-Informed School Strategies During COVID-19 <https://bit.ly/323jjQG>

**(4)** The Health Benefits of the Great Outdoors: <https://bit.ly/2DsDttD>

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## Extending and Expanding Learning Spaces into the Community

Guidelines under development by the National Council for School Facilities (NCSF) suggest schools allow space of 44 square feet per student, which provides the recommended 6 feet of social distance between any two students, while also providing a small amount of additional space for a teacher to move about the room. **(5)** NCSF estimates most schools using the guidance will be able to operate at about 60% of current classroom capacity. Many schools will find additional space by repurposing areas such as media centers, cafeterias, and gyms. In some cases, this reconfiguration may solve the problem of physical capacity inside the building. But what about staffing for these new “classrooms”? Many schools and districts will face continued gaps in capacity even after all of the usable space has been integrated into a plan for re-opening.

Environmental and outdoor education programs in communities can be leveraged to provide additional learning opportunities that are aligned with standards, as well as added learning spaces for students during this pandemic. Many of these programs have also been temporarily closed, and will remain so for as long as schools are unable to participate in their programs. **(6)** Partnering with these community-based programs, such as nature centers and outdoor schools, is one way to increase physical capacity to accommodate all students, while providing enriching educational experiences and equitable access to nature. It is also an opportunity to engage talented and experienced nonformal educators in supporting teachers and students.



## Schools Can:

- **Maximize opportunities with environmental and outdoor education programs that are already designed for outdoor learning, where the risk of infectious spread is lower.(7)**
- **Partner with the experienced environmental and outdoor educators at these sites to provide instruction, outdoor classroom management, and other educational support.**
- **Be aware that community-based programs are already adhering to the same health and safety standards as schools, as determined by state and local health departments, to accommodate safe distancing, frequent hand-washing, regular cleaning of high touch surfaces, and other guidelines to protect the health and safety of visitors.**
- **Consider rotating appropriately-sized groups to partner facilities over the course of the school year for equitable access (with enough time in between groups for adequate cleaning).**
- **Streamline field trip planning by using tools such as annual and/or digital permission slips.**

**To connect with a community-based environmental or outdoor education program in your area, contact [director@usee.org](mailto:director@usee.org)**

### Sources:

**(5)** National Council on School Facilities, COVID-19 <https://bit.ly/3gJnKUM>

**(6)** In fact, a recent survey of nearly 1000 environmental and outdoor science programs found that only 22% of respondents were confident they would "definitely be able to reopen" if their programs remained closed through the end of the year.

**(7)** CDC, Visiting Parks and Recreational Facilities <https://bit.ly/2Zc5v4A>

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## Using the School Grounds for Learning

When taking an inventory of usable space for learning, school districts could consider all of the available outdoor space that can be used for outdoor classrooms. Evidence increasingly suggests that the risk of the spread of COVID-19 and other infectious diseases is significantly lower in outdoor settings when appropriate measures are taken. Indeed, there is a large and growing body of research that demonstrates the benefits of outdoor learning for mental health and well-being, stress reduction, physical health, student engagement, and academic success. **(8, 9)** Outdoor classrooms are a cost-effective option for addressing the pragmatic need to expand school capacity for learning that will have long term and lasting benefits in other areas as well. Nonformal environmental and outdoor educators can be essential partners in using the school grounds and other adjacent natural settings for expanded classroom capacity. They can facilitate learning on the school grounds and provide professional development for classroom teachers.

We understand that there may be a number of challenges to learning outdoors in Utah. These may include but are not limited to: exposure to the sun, high and low temperatures, precipitation, and poor air quality. It is also worth noting that some students may not be prepared to be outdoors, as access to sunscreen, rain jackets and cold weather gear may not be available. Educators can and should take these factors into account. **For assistance with using the outdoors as a classroom, contact [director@usee.org](mailto:director@usee.org) to connect with an EE organization in your area - they are uniquely poised to help find solutions to these challenges and may have equipment for your students to rent or borrow.** USEE is also willing and able to work with you and your school to find grants and other funding to address these needs.

Educators may not feel equipped to teach outdoors for a number of reasons. This may include outdoors classroom management, adapting lessons for the outdoors that include visuals and ensuring students can hear the teacher and each other given that social distancing will likely be taking place. Many of Utah's environmental and outdoor education programs can provide training to ensure that educators are comfortable and have the confidence to teach outdoors. We certainly don't have all the answers but are willing to collaborate to help develop solutions that support learners and their teachers. **For information on professional development opportunities, please connect with [director@usee.org](mailto:director@usee.org).**

## Schools Can:

- **Inventory outdoor learning spaces and assess them for different uses.**
- **Explore opportunities with staff to use outdoor classrooms and other learning spaces (such as school gardens, greenhouses, nearby green space, etc) to meet state learning standards.**
- **Consult with environmental and outdoor educators who are trained to use the schoolyard and other natural environments as a context for learning across curricula, have expertise in group management and engagement in an outdoor setting, and are often specifically trained in addressing physical health and safety of participants.**
- **Partner with outdoor environmental educators who can facilitate smaller groups of students for safe learning.**
- **Explore opportunities to become a green school through the Utah Society for Environmental Education to improve the health and safety of both indoor and outdoor learning environments.**
- **Design outdoor learning spaces to enhance meaningful, phenomena-based learning (i.e. pollinator gardens, bird feeders, intentional outdoor habitats, produce gardens).**



### Sources:

**(8)** NAAEE, Benefits of Environmental Education <https://bit.ly/3ehic2h>

**(9)** Children & Nature Network, Nature Can Improve Health and Wellbeing <https://bit.ly/2Od1Ehn>

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## Supporting Teaching and Learning

The reopening of schools will require teachers to further adapt to the “new norm” of teaching and learning. Potential changes include finding new ways to blend face-to-face and virtual teaching, staggered teaching times, teaching in new settings, complex scheduling, and more. Partnering with outdoor and environmental education providers can help to support teachers at the time when they need it most.

### Schools Can:

- **Leverage the expertise of outdoor and environmental educators to provide engaging professional development for teachers to increase their comfort and capacity to use outdoor classrooms and other learning spaces (such as school gardens, greenhouses, and nearby green space) for meaningful instruction.**
- **Use community-based programs such as nature centers, science centers, watershed education programs, and more who have the expertise and are already set up to accommodate learning, indoors and out.**
- **Partner with nonformal program providers who are skilled at working with teachers to design and implement programs that are aligned with and support the implementation of curricular standards.**
- **Engage nonformal educators as support staff/teaching assistants/content specialists for formal classroom teachers to support outdoor learning.**

## Creating Healthier Learning Environments

The stress and strain of the many changes schools are facing can have detrimental impacts on the health of both students and educators. Taking positive action to create healthier schools and tap into the restorative properties of green spaces and nature can be vital tools to addressing the health and well-being of educators and learners. In Utah, we know that there is a demand to create more opportunities for nature-based learning. In 2020, 69 programs applied for \$578,475 in funding through the Utah Children’s Outdoor Recreation and Education Grant administered by the Utah Office of Outdoor Recreation.

### Schools Can:

- **Engage with the Utah Society for Environmental Education’s Green Schools programs to find ways to make schools greener, safer, and healthier.**
- **Make regular use of schoolyard and community green spaces and nearby nature for outdoor learning and physical activity to improve mental health, and consider policies for time outdoors as a part of the school day.**



## Why Environmental Education?

Environmental education (EE), with its focus on fostering environmental literacy and civic engagement skills, interdisciplinary learning, and youth leadership, helps to create healthy communities. EE helps students gain knowledge and skills across the curriculum, and it fosters critical thinking skills. EE is hands-on, interdisciplinary, empowering, and relevant to learners’ everyday lives. It gives them the knowledge and tools they need to face environmental and social challenges with confidence and optimism. High-quality EE includes regular outdoor learning, which can improve physical and mental health.

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## Virtual Teaching and Learning

Many states and districts are considering strategies for safely reopening schools that will involve some amount of continued online instruction and virtual learning for groups of students or periods of time. Students will likely participate in a combination of facilitated and independent learning opportunities that take place at school and at home, which will require some new instructional approaches and content. Many outdoor and environmental education program providers already offer content-rich virtual programming, or pivoted quickly at the onset of COVID-19 to develop and distribute digital content to their participants and local school partners.

## Supporting At-Home Learning

As schools modify schedules for students and consider combinations of face-to-face and virtual learning, families will continue to face challenges with childcare.

### Schools Can:

- **Work closely with outdoor and environmental education providers to carry over learning into out-of-school opportunities that many parents rely on for childcare.**
- **Develop relationships with community-based and environmental and outdoor education partners that have already created resources to help support out-of-school learning for families.**
- **Incorporate lessons and activities that include opportunities for students to explore and investigate nature, either outdoors in a backyard, neighborhood, or park.**

### Schools Can:

- **Inventory the virtual learning opportunities with outdoor and environmental education programs in Utah, and beyond to provide independent virtual learning opportunities for students. Many of these are aligned with state standards and can be found on the Utah Education Network website. The Utah Society for Environmental Education also has a listing of environmental education programs from across the state.**
- **Plan virtual field trips if actual field trips are not practical, and create opportunities for students to explore new places and interact with outdoor and environmental educators.**
- **Work closely with nonformal educators to supplement virtual learning opportunities for students outside of school time with at-home learning experiences, virtual camps, etc.**



*"The mission of the Utah Office of Outdoor Recreation is to ensure all Utahns can live a healthy and active lifestyle through outdoor recreation, and we have a particular focus on getting kids outdoors. To achieve this, we oversee the Every Kid Outdoors initiative, administer the Utah Children's Outdoor Recreation & Education grant, and manage youth-focused panels for our annual Outdoor Recreation Summit. Our office is familiar with the overwhelming evidence that time outdoors helps kids (and adults) improve their physical health, emotional wellbeing, cognitive processing, and creativity. We are also familiar with early COVID-19 research that appears to show a decreased ability for the virus to spread outdoors. Our office works toward helping all kids have access to the outdoors and believe it would be especially beneficial now for outdoor education facilities to support schools and serve as places where kids can learn and teachers can teach."*

**- Pitt Grewe, Director of the Utah Office of Outdoor Recreation**

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## Environmental & Outdoor Education Partners in Utah

Environmental education and outdoor education organizations across the state of Utah can provide tools and resources to bring students outdoors. Utah is home to numerous organizations with knowledgeable staffs who are available to help you make the most of this coming school year. **To receive the listing or to find out about organizations in your area contact Alex Porpora at the Utah Society for Environmental Education at [director@usee.org](mailto:director@usee.org).**

## Environmental Education and Outdoor Education & Utah Leads Together

The Utah Leads Together Plan outlines advice and recommendations from Governor Herbert's Coronavirus Task Force. These plans introduce and define the color-coded health guidance system which includes four levels of activity: High Risk (Red), Moderate Risk (Orange), Low Risk (Yellow), and New Normal (Green). This guidance can be adjusted by area (region, county, city, etc.) based on the health risk posed by COVID-19. Regardless of the level, all Utahns, and by extension all environmental education and outdoor education providers will adhere to the rules of conduct laid out in the plan. These include: common sense and personal responsibility, protective hygiene and cleaning, following guidance and protecting high-risk populations. Additionally, all environmental and outdoor education providers will adhere to additional measures put in place by local governments and school districts.

Environmental and outdoor education providers can and should work together with schools and families through each phase of the color-coded health guidance plan. This guidance for programs was based on feedback from multiple Utah environmental and outdoor education providers and the North American Association for Environmental Education Affiliate Network.

### Virtual & Print Learning Opportunities for Students

#### New Normal & Low Risk

- EE & Outdoor Education providers can deliver virtual and print learning resources as a supplement to in-school learning. In this case, these opportunities should support SEEd and other Utah standards. Students should use green space near their homes and school while taking the appropriate precautions.

#### Moderate Risk & High Risk

- EE & Outdoor Education providers can deliver virtual and print learning resources for students to learn at home. Emphasis can be placed on video content and webinars. Virtual learning can support SEEd and additional Utah standards or be a stand-alone activity/supplement to learning during the school day. Students can and should use green space near their homes while taking the appropriate precautions if it is safe to do so.

### Using School Grounds for Learning

#### New Normal & Low Risk

- Schools should inventory their outdoor spaces for use during the school date. EE & Outdoor Education providers can provide training and content for these spaces. Students and teachers should use these spaces while taking the appropriate precautions. If possible, consider utilizing outreach programs from EE and outdoor education providers at your school with the appropriate precautions.

#### Moderate Risk

- If schools is in session, schools should inventory green spaces for use during the day and use the appropriate precautions. Students should also be provided with resources that allow them to access green space near their homes while taking the appropriate precautions.

#### High Risk

- Students should be provided with resources that allow them to access green space strictly near their homes if safe to do so.

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## Environmental Education and Outdoor Education & Utah Leads Together

### Using Nearby Green Spaces & Natural Areas for Learning

#### New Normal & Low Risk

- Schools should inventory their nearby green spaces for use during the school day. EE & Outdoor Education providers can provide training and content for these spaces. Students and teachers should use these spaces while taking the appropriate precautions. If possible, consider utilizing outreach programs from EE and outdoor education providers at your school with the appropriate precautions

#### Moderate Risk

- If schools is in session, schools should inventory green spaces for use during the day and use the appropriate precautions. Students should be provided with resources that allow them to access green space near their homes while taking the appropriate precautions.

#### High Risk

- Students should be provided with resources that allow them to access green space strictly near their homes if safe to do so.

### Educator Professional Development

#### New Normal & Low Risk

- EE & Outdoor Education providers can deliver virtual and hybrid professional development. All in-person training should adhere to state and local guidelines and take place outdoors with appropriate precautions.

#### Moderate & High Risk

- EE & Outdoor Education providers can deliver virtual professional development. Emphasis can be placed on video content and webinars. Educators can and should use green space near their homes while taking the appropriate precaution if it is safe to do so.

### EE Field Trips

#### New Normal & Low Risk

- The potential for field trips exists at this level. Transportation may not be feasible via bus unless precautions are taken (ie, students in every other seat and wearing masks.). If field trips occur, they should be conducted outdoors and should adhere to guidance provided by school districts and state/local agencies. Field trip sites should take appropriate precautions to ensure the health and safety of students, teachers, and parents.

#### Moderate & High Risk

- Field trips should be conducted virtually.



### School Outreach from EE and Outdoor Ed Partners

#### New Normal & Low Risk

- The potential for external EE and Outdoor Ed staff to visit schools exists at this level. Whenever possible, outreach programs should be conducted outdoors and should adhere to guidance provided by school districts and state/local agencies. External staff should take appropriate precautions to ensure the health and safety of students, teachers, and school personnel.

#### Moderate & High Risk

- Outreach should be conducted virtually.

## Additional Considerations

- If students are using materials outdoors (nature journaling, art supplies, etc.), each student should have their own set of materials to limit interacting with additional surfaces. All outdoor activities should require students to remain physically distant.
- If field trips are taking place, payments should be contactless and forms should be transmitted digitally. Consider one permission slip to cover all outdoor field trips.
- With the emphasis on virtual learning, many students may not have access to a device or reliable internet connections. Where possible, environmental education and outdoor education providers should attempt to offer print resources.
- Students may or may not have access to outdoor spaces where they live. When developing programs, keep this in mind. Outdoor activities should be scaled for use in natural areas, local trails, school yards, nearby parks, backyards, parkstrips, etc.

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## Environmental and Outdoor Education Supports SEEd

Environmental and outdoor education providers can provide support to address the Science with Engineering Education (SEEd) standards. Environmental education provides students with the opportunity to spend time in the natural world (whether a backyard, park strip, neighborhood park, school yard, etc) and allows them to observe real-world phenomena. It is important to recognize that not all students will have access to outdoor spaces. Where applicable, nature can be brought into the home via technology. Observing photos and YouTube videos for real-world phenomena are also a good starting point for many nature-based activities.

Below are a number of suggested activities and their SEEd alignments from environmental and outdoor education partners. The Utah Education Network has also developed a comprehensive listing of virtual resources and lesson plans that can be accessed by visiting: <https://www.uen.org/learnathome/subject/science-extension.shtml>. **For additional resources contact [director@usee.org](mailto:director@usee.org).**

### Kindergarten (K.1.3):

- UEN Learn@Home: Student Science Experiences [https://docs.google.com/document/d/18v7pHOdkoEvDyWiE7v8rkloAHQbmbp23Dj6hWsiH\\_ZE/edit?usp=sharing](https://docs.google.com/document/d/18v7pHOdkoEvDyWiE7v8rkloAHQbmbp23Dj6hWsiH_ZE/edit?usp=sharing)

### 1st Grade (1.1.2):

- Ogden Nature Center <https://www.ogdennaturecenter.org/education/teacher-resources/teacher-resources>
- UEN Learn@Home: Student Science Experiences [https://docs.google.com/document/d/18v7pHOdkoEvDyWiE7v8rkloAHQbmbp23Dj6hWsiH\\_ZE/edit?usp=sharing](https://docs.google.com/document/d/18v7pHOdkoEvDyWiE7v8rkloAHQbmbp23Dj6hWsiH_ZE/edit?usp=sharing)

### 2nd Grade (2.2.1):

- Tracy Aviary's Beaks, Feet, & Feathers Tour and Adaptations & Habitats Tour (both available virtually) <https://tracyaviary.org/field-trips/guided-group-tours>

### 3rd Grade (3.2.5):

- UEN Learn@Home: Student Science Experiences [https://docs.google.com/document/d/18v7pHOdkoEvDyWiE7v8rkloAHQbmbp23Dj6hWsiH\\_ZE/edit?usp=sharing](https://docs.google.com/document/d/18v7pHOdkoEvDyWiE7v8rkloAHQbmbp23Dj6hWsiH_ZE/edit?usp=sharing)
- Tracy Aviary's Beaks, Feet, & Feathers Tour and Adaptations & Habitats Tour (both available virtually) <https://tracyaviary.org/field-trips/guided-group-tours>

### 4th Grade (4.1.1):

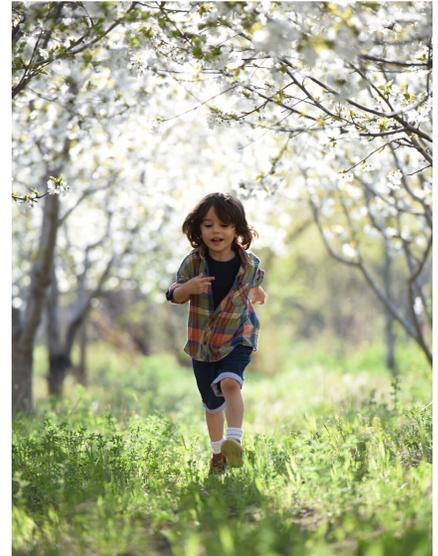
- Tracy Aviary's Beaks, Feet, & Feathers Tour and Adaptations & Habitats Tour (both available virtually) <https://tracyaviary.org/field-trips/guided-group-tours>
- Tracy Aviary's Artsy Adaptations and Egg-strordinary Eggs Distance Learning Programs <https://tracyaviary.org/distance-learning>

### 5th Grade (5.3.1):

- UEN Learn@Home: Student Science Experiences: [https://docs.google.com/document/d/198pkBA1ADNRa-1qUdbs9H2c\\_7PMBYIT-u2j7l-6Nopg/edit?usp=sharing](https://docs.google.com/document/d/198pkBA1ADNRa-1qUdbs9H2c_7PMBYIT-u2j7l-6Nopg/edit?usp=sharing)

### Multiple Grades:

- Canyon Country Discovery Center: [https://drive.google.com/file/d/1s5bLYGTV8-KVsa\\_Jush3BDpIK7hr8qRX/view?usp=sharing](https://drive.google.com/file/d/1s5bLYGTV8-KVsa_Jush3BDpIK7hr8qRX/view?usp=sharing)



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## Conclusion

State and local education agencies are facing enormous challenges as they plan for the 2020-2021 school year. The good news is that there are many community resources that can help provide support. These recommendations can help school districts, teachers, and parents explore new ways of tackling these challenges and thinking about how and where students learn, and what sorts of partnerships that can best support a return to school that is not only safe, but contributes to a vastly more healthy and meaningful education.

These recommendations have been developed based on more than 65 community feedback calls conducted with hundreds of environmental and outdoors learning providers from around the country, in addition to conducting feedback and outreach in Utah during the spring and summer of 2020.



The Utah Society for Environmental Education is the Utah Affiliate of the North American Association for Environmental Education. Our mission is to promote excellence in environmental education and community engagement to connect all Utahns to their natural world. For more information visit [www.usee.org](http://www.usee.org)

## Supporting Organizations

