



Outdoor Teaching in the Time of COVID: What You Need to Know

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THE CENTER
FOR GREEN SCHOOLS





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green schoolyards america

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Mission

Green Schoolyards America works to transform asphalt-covered school grounds into park-like green spaces that improve children's well-being, learning, and play while contributing to the ecological health and resilience of their cities.



Green Schoolyards America



RESEARCH



POLICY



SUPPORT

green schoolyards america



Vision

We envision a future in which:



CHILDREN

...all children have daily access to nature right outside their classroom door, enabling dynamic hands-on learning across the curriculum, child-directed play, robust health, and a positive social environment.

ENVIRONMENT

...school grounds act as green infrastructure for their cities, helping to foster healthy urban watersheds, rich wildlife habitats, improved climate, and better air quality.

COMMUNITY

...school grounds are vibrant, welcoming centers for their communities, and the public lands managed by schools also function as public parks after hours. Access to this green space on school grounds is equitably distributed and within a short walk of every resident.

National COVID-19 Outdoor Learning Initiative

Reopening Schools with Outdoor Learning



National COVID-19 Outdoor Learning Initiative

MISSION

- Support schools and districts around the country in their efforts to reopen safely and equitably
- Use outdoor spaces as strategic, cost-effective tools to maximize the number of students who can safely return to campus with physical distancing measures in place
- Improve outcomes for learning, mental and physical health, and happiness

<https://bit.ly/COVID-OutdoorLearning>

National COVID-19 Outdoor Learning Initiative



Green Schoolyards America

Why is it difficult to reopen schools?

- Physical distancing is required to reopen, but school buildings were not designed to accommodate students 6 feet apart.

Most schools can only fit

~60%

of students indoors with
the required spacing.*

- Most school ventilation systems were not designed to filter pandemic viruses. COVID-19 is easily spread through indoor air.

* Estimate from the National Council on School Facilities and Cooperative Strategies LLC.

Online learning is devastating for many students:

- School closures leave many students without a safe, stable place to go and exacerbates inequalities faced by the most vulnerable students
- Widespread learning loss

In California alone, ~29% of students live in homes without high speed internet.
— *Alliance for Excellent Education*
- Mental health crisis: stress, trauma, and social isolation
- Reduced physical fitness, sitting at computers
- Parents can't go back to work when children are home

Benefits of Outdoor Learning During COVID

- Fresh air outside greatly reduces the risk of virus transmission
- Increased meeting space for classes, so more students can return to school more often
- Outdoor seating areas can be placed near resources for hands-on learning
- Being outside improves access to nature, which has therapeutic mental health benefits:
 - reduces stress
 - restores ability to pay attention



Benefits of Outdoor Spaces

- Useful at any scale: from one teacher taking her class outside to read a book under a tree, to a grander vision of 100% of students returning to outdoor classrooms across an entire school district
- Suitable for a variety of school programs:
 - PE and recess
 - Lunch and other meals
 - Library, art, music, garden, and other special classes
 - Before/after school programs

National COVID-19 Outdoor Learning Initiative

STRATEGY

- Reframe outdoor learning as “Plan A”— and online and indoor options as “Plan B”
- Help schools and districts create plans to move as many classes and school programs as possible into school grounds and parks
- Use low-cost materials to create outdoor classrooms
- Invest in permanent items if longterm use is possible
- Plan for local weather (heat, rain, snow, wind)



Drew Kelly Photography

Prioritize Equity

- Return students to campus where they can access a safe, stable environment and connect with school resources most effectively
- If schools reopen gradually, prioritize the most vulnerable students with the highest needs first
- Include the whole school community in the decision-making and implementation processes for outdoor learning
- Provide outdoor clothing along with infrastructure to ensure that all students are equally warm and dry as seasons change

Statement of Equity

Throughout the U.S., many schools remain closed due to the COVID-19 pandemic. This leaves students without a place of stability, safety, protection, and resources to continue their learning and dramatically increases inequities for already vulnerable students, including students living in poverty, students of color, students with disabilities, multilingual learners, students in foster care, and youth experiencing homelessness. Many households lack the technology and support necessary for students to be successful in distance learning. In parts of the U.S. schools are opening regardless of their ability to meet public health guidelines. Ensuring that school grounds can be reopened and used safely by creating outdoor classrooms creates a possible refuge for students whose circumstances prevent them from learning effectively outside of school.

ALL students are guaranteed a free public education, but many inequities exist in PK-12 school systems. Due to COVID-19, the recent plans for returning to PK-12 educational settings include a range of designs (e.g., schools using online learning or schools opening with options for face to face, distance, or hybrid models) that exacerbate the educational inequities faced by at-risk populations of students, as well as their teachers and staff. Formal and nonformal learning in the outdoors can place students at the center of learning, reducing the distinction between school, home, and outdoor spaces. This can provide multiple benefits for ALL students that reduce health risks, minimize inequities, provide flexible settings, and enrich learning opportunities. As educators seek innovative ways to support student learning, many of these changes may become more permanent.

The vision of National COVID-19 Outdoor Learning Initiative's Equity Statement is to (a) critically examine school plans for equity in their use of outdoor space and programs, and (b) capitalize on community assets and diverse experience and expertise by placing students of the local community at the center of learning, especially for those students who are disproportionately affected by the virus.

As schools return to operating in any format, specific equity issues need to be considered in collaboration with different stakeholder groups, including:

- access to technology and technology supports,
- learning models (in person, hybrid, or distance learning),
- travel such as busing to or from school,
- classroom configurations, physical building modifications (open windows),
- alternative learning environments,
- utilization of specialized educational staff as well as individual and organizational partners of the community in innovative ways,
- Personal Protective Equipment (PPE) (home and school), and
- considerations on how equity connects to other working groups



Statement of Equity

National COVID-19 Outdoor Learning Initiative

- Guiding statement for the overall initiative
- Framework for schools and districts to use as they move forward on their outdoor learning plans

<https://www.greenschoolyards.org/equity>

Outdoor Learning Working Groups



National COVID-19 Outdoor Learning Initiative

Schools across the United States are facing an uphill battle as they figure out how to navigate COVID-19 physical distancing requirements that will allow students to return to campus. There is an urgent need to reimagine PreK-12 schools in order to reopen safely and equitably. Repurposing outdoor spaces is a cost-effective way to reduce the burden on indoor classrooms while providing fresh air, hands-on learning opportunities, and the health benefits associated with increased access to nature.

This webpage shares information for the new **National COVID-19 Outdoor Learning Initiative**. This initiative was launched with an online public forum entitled: **Outdoor Spaces as Essential Assets for School Districts' COVID-19 Response**, held on June 4, 2020. The event was co-hosted by: **Green Schoolyards America**, **The Lawrence Hall of Science**, **San Mateo County Office of Education**, and **Ten Strands**. We are now convening a series of working groups to further develop the National COVID-19 Outdoor Learning Initiative over the summer. The working groups are creating frameworks, strategies, and guidance to share with school districts across the country. Please visit this page often to receive updates on materials as new items are posted. We hope you will help us share this information widely, and that you will consider joining this effort by [participating in one of the working groups](#).

RESOURCES AND PLANNING TOOLS



Overview and Background Materials

If this is your first visit to our webpage, or you are looking for materials to share the overall idea with colleagues, this is a great place to get started. [Click here](#).



Official Guidance and Policies

[Visit this page](#) for links to published guidance from national, state, and local governments and health institutions about how to reopen schools, using outdoor spaces.



Ensuring Equity

The COVID-19 pandemic is exacerbating existing inequalities across America. How can schools reopen with the most equitable plans in place? [Click here](#) for more information.



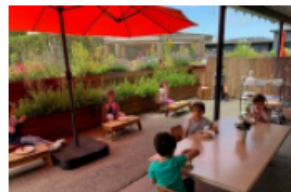
Case Studies

What will it look like to reopen in the fall using outdoor classrooms as "Plan A"? Some U.S. schools already have summer programs in full swing. Illustrating how outdoor learning can provide a nurturing and safe environment during this crisis. Schools in other countries also field tested their return to campus this spring, and have models we can learn from. [Click here](#) to learn from examples in action.



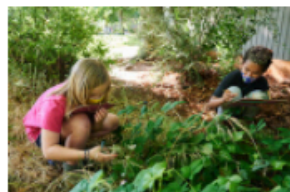
Outdoor Classroom Infrastructure

If schools decide to hold classes outside, what will their outdoor classrooms look like? How can we protect students from rain, snow, wind, and heat? How much does it cost to set up outdoor learning on a large scale? [Visit this page](#) for site design and planning frameworks, cost estimating tools, and other resources.



School Program Integration

When schools reopen, outdoor spaces on school grounds will be needed for academic instruction, physical education, recess, lunch, before/after school programs, library classes and other special programs, and community access after hours. [Click here](#) to read more about integrating school programs into an outdoor plan.



Support for Outdoor Learning

Need more information, ideas, and strategies for teaching outside? The outdoor learning, green schoolyard, and school garden fields have decades of experience to share. Visit this page for links to related organizations across the country. Our working groups will also post COVID-19-related strategies on this page. (Coming soon!)



Outdoor Learning in the News

Over the past few months, we have been tracking articles published about outdoor learning as a COVID-19 response. [Visit this page](#) to read about: historic precedent for outdoor learning during pandemics; advice from doctors and public health officials; and reopening strategies in the USA and abroad.



Please Join Our Working Groups!

Moving learning outside is a collaborative undertaking, best accomplished with a team of colleagues! We would like to invite you to join one of our working groups to participate in shaping this national initiative. [Click here](#) to learn more.

Online resources

Working Groups #1 - #10

- Producing materials to create a free online "how-to manual" for taking learning outside
- Some resources are already on our website and others will be posted soon

Working Group #11

- Convenes schools and districts to discuss plans for outdoor learning and share ideas and strategies
- Meets every other Tuesday, open to schools and districts around the country.
- Please join us:
<https://bit.ly/WG11-Meetings>

<https://bit.ly/COVID-OutdoorLearning>



Campus Assessment for Outdoor Classroom Infrastructure

This assessment tool was developed to help school administrators and designers evaluate their school grounds and begin the site planning process that is needed to move learning outside as schools reopen. Part 1 should be completed by the principal or other school representative. For Part 2, we recommend that the school representative collaborate with someone who has some site design experience, if possible. Part 2 will also be easier to envision while walking through the school grounds, but it may also be done remotely using online aerial photographs and other resources.

The goal of this assessment tool is to **gather information about a school site to assess the initial feasibility of outdoor learning and/or to support the implementation of a school's outdoor learning goals.** This form is meant to be as comprehensive as possible. Skip any questions that are not relevant to your school.

Part 1: Context and Background Information

School and School District

School Name:	School District:	
School Address:		
Size of Campus: _____ S/F or Acres (actual or approximate)	Size of buildings: _____ S/F (actual or approximate)	Urban _____ Suburban _____ Rural _____
School Mission / Special Focus / Vision:		
Describe your campus outdoor space: (e.g.: A fenced space that is partly paved, partly rubber surfaced, and partly lawn, with a playing field, two play structures, a covered walkway, and doors in five locations. Part of the campus is wooded. We have one seating circle and eight raised garden beds.)		

Describe the types of programs and ways your school grounds were used before the COVID-19 crisis: (e.g.: recess, PE, garden, morning circle, etc.)
Are there any additional outdoor spaces in your school's neighborhood that could be used by your students during the COVID crisis? Please list these spaces by name: (e.g. nearby parks, green spaces, street(s) or parking lots that could be closed, rooftops, etc).

Team Members – List names and contact information for anyone who is supporting the completion of this assessment tool.

First and Last Name	Job Title	Contact Information

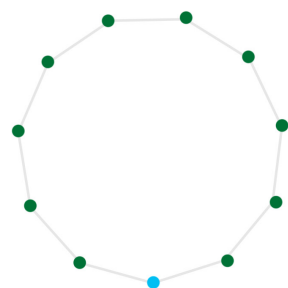
Campus Assessment Tool for Outdoor Classroom Infrastructure

- 1st step in the site planning process to record program goals and assess outdoor infrastructure needs
- This is posted on our website, on the outdoor infrastructure page.

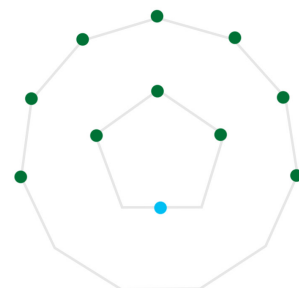
POTENTIAL OUTDOOR CLASSROOM CONFIGURATIONS WITH 6' SOCIAL DISTANCING

SCALE MODELS BELOW ASSUME EACH OUTDOOR CLASSROOM FITS PART OF A CLASS

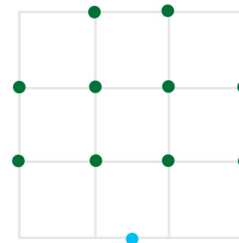
10 students + 1 adult



Circle: 21' diameter

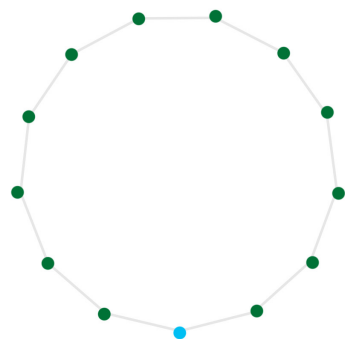


Amphitheater:
22' dia. outside & 10' dia. inside

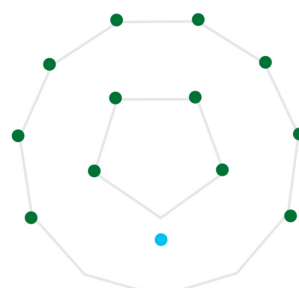


Grid: 18' x 18'

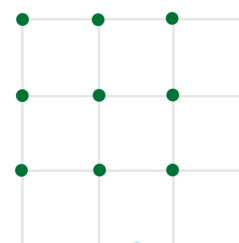
12 students + 1 adult



Circle: 25' diameter

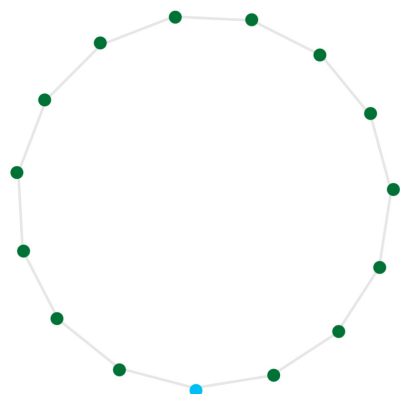


Amphitheater:
22' dia. outside & 10' dia. inside

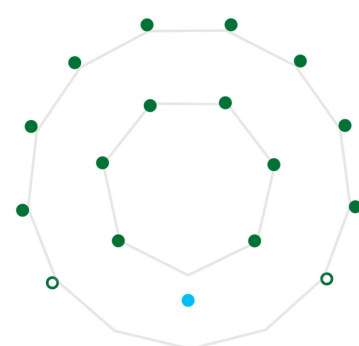


Grid: 18' x 18'

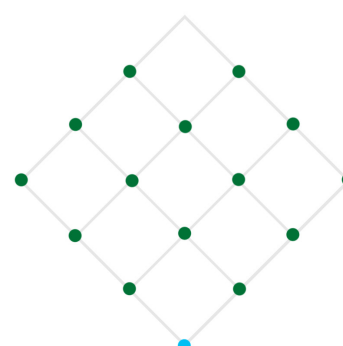
14 students + 1 adult



Circle: 29' diameter



Amphitheater:
25.5' dia. outside & 13.5' dia. inside
(14 – 16 students)



Grid: 18' x 18'
(rotated)

Key: student ● adult ● 6' distance

Class Configuration

How much space does each outdoor classroom need, if everyone is 6' apart outside?

Example: Site Planning Process

Elementary School Northern Virginia

School Characteristics

Students

- 828 students in grades K-5
- 33 K-5 classes
- 6 preschool classes
- 2 of the preschool classes and 2 of the K-5 classes serve students with autism

School Grounds

- Suburban location
- 12.8 acres on school grounds
- Campus has 2 buildings
- This school is adjacent to two busy streets and a quiet neighborhood.

Climate

- This region has four distinct seasons: colorful crisp fall weather, mild winter with light snowfall, warm wet spring, and hot, humid summers.
- Frequent year round precipitation: ~120 days per year
- Annual rainfall: 43" per year
- Annual snowfall: 22" per year
- Temperatures during the school year generally range from lows ~24°F in January to highs ~85°F in September and May.

Image Source:
Google Earth Pro



100'





Elementary School Northern Virginia

Site Photographs



**Walk the school site.
Document potential outdoor
classroom locations.**



Photographs, top row to bottom row

1. Many spacious, flat areas with grass and trees surround the school buildings.
2. The school grounds include several existing outdoor classroom spaces, nestled in the woods or near trees.
3. There are expansive paved areas in the playground (bottom left) and in the existing bus parking lot (bottom right).



Potential Outdoor Seating Areas

Use Existing Seating and Tree Canopy for Outdoor Learning

When the Weather is Clear and Mild



Image Source:
Google Earth Pro

● 13 potential
outdoor seating
areas for 10-15
students each

● 1 existing area with
3 picnic tables and
potential for 3 more
(2 students/table)

■ 2 storage sheds
(shipping
containers)



100'

Elementary School Northern Virginia

Scenario #1: Low Cost

Climate Considerations

- Local climate varies seasonally
- Classes will require protection from sun and rain, and appropriate clothing to keep everyone warm and dry

Climate Adaptation Strategies

- Use outdoor classrooms as "Plan A" when the weather is nice; go inside or online when it is raining or too cold
- Place seating in areas with existing tree canopies to provide shade

Use and Augment Existing Infrastructure

- Use five existing seating areas with picnic tables, benches, and stumps
- Use nine grassy areas with shade trees and add low cost seating (mats, stumps, benches, and/or existing desks/tables)
- Add storage sheds for class materials
- Preserve space for PE and recess
- Assume students will not stay seated all day; plan to use spaces adjacent to seating areas for hands-on learning

Scenario #1: Outdoor Capacity

- Max: 207 students in 14 seating areas
- Capacity: 25% of enrolled students
- 14 of the school's 39 classes could use an outdoor learning space



Potential Outdoor Seating Areas

Outdoor Learning to Accommodate Most Classes in Almost All Weather



Image Source:
Google Earth Pro

31 potential outdoor seating areas for 10-15 students each

1 existing area with 3 picnic tables and potential for 3 more (2 students/table)

31 shelters for sun and rain

5 storage sheds (shipping containers)



100'

Elementary School Northern Virginia

Scenario #2: Moderate Cost

Climate Adaptation Strategies

Build on Scenario #1:

- Install shelters to protect classes from sun and rain
- Add outdoor heaters and/or provide rain and snow gear so students will be dry and warm when weather is wet and cold

Use and Augment Existing Infrastructure

- Add seating to create new outdoor classroom areas
- Close bus parking lot to traffic during school hours and use pavement for additional outdoor classroom space
- Add plants in large containers to make classes on pavement and open areas more inviting
- Add storage sheds for class materials (1 per grade or per 5-6 classes)
- Prepare designated preschool yards for small social bubbles
- Preserve space for PE and recess

Scenario #2: Outdoor Capacity

- Max: 447 students in 32 seating areas
- Capacity: 57% of enrolled students
- 32 of the school's 39 classes could use an outdoor learning space



Potential Outdoor Seating Areas All-Weather Outdoor Learning Spaces for Every Class

Elementary School Northern Virginia

Scenario #3: Infrastructure Investment to Include Forested Land

Investment in Future Outdoor Learning

- This school site includes beautiful forested areas that are currently underutilized by students.
- Add a fence to the edge of the school grounds, near the road.
- Selectively clear some of the dense understory in the forested areas to make clearings to accommodate classes.
- Add shelters to ensure that every classroom space is protected from the weather.
- Where possible, add outdoor heaters to make the outdoor classrooms more comfortable during the winter.

Scenario #3: Outdoor Capacity

- Max: 582 students in 39 seating areas
- Capacity: 70% of enrolled students
- 39 of the school's 39 classes could use an outdoor learning space
- If only 50% of students are on campus each day, every class could be held outside, year-round, if desired.
- If 100% of students return, 50% could be inside and 50% outside

Image Source:
Google Earth Pro

● 38 potential
outdoor seating
areas for 10-15
students each

..... 1 existing area with
3 picnic tables and
potential for 3 more
(2 students/table)

■ 38 shelters
for sun and
rain

■ 6 storage sheds
(shipping
containers)



100'



Potential Outdoor Seating Areas Map Key for Alternate Scenarios

Elementary School Northern Virginia

Map Key

Color Coded Scenarios

- Scenario #1: Low Cost
- Scenario #2: Moderate Cost
- Scenario #3: Infrastructure Investment

Notes

- The number on each outdoor learning area corresponds with a planning chart that provides additional information about what may be needed in each location.
- The letters identify outdoor storage sheds that will hold classroom materials.
- Recommendation: Assign adjacent outdoor classroom spaces to classes in the same grade level, so that the teachers may share materials in a nearby storage shed and plan for children with similar needs.
- Preschool classes will need their own designated outdoor spaces that are designed differently than K-5 areas.
- Outdoor spaces that serve children with autism should be designed in close collaboration with their teachers.
- The asphalt playground and sports field have been left unobstructed to allow space for PE classes, sports games, and potential use by the local community.

Image Source:
Google Earth Pro

● Potential
outdoor seating
areas for 10-15
students each

Existing area with
3 picnic tables and
potential for 3 more
(2 students/table)

Storage sheds
(shipping
containers)



100'



Site Conditions Planning Tool

A bridge between the map and a cost estimate

Space	Option 1	Option 2	Option 3	Paved	Grass	Shaded	Unshaded	Wooded	Uncleared	Ex seating	Add shelter	wall mounted heater	free standing heater (paved)	add paving for heater	Description	Seating notes (these are guesses, I didn't measure)
1	x				x		x				x	x			large open lawn with a few small trees	fence for autism class
2		x		x	x		x				x	x			3 small grassy rectangles with walkways dividing	fence for autism class
3	x				x	x					x		x		fenced discovery area with a little shade	grid for 10 kids
4		x			x		x				x		x		grassy area near shed	any
5		x		x		x					x	x			river birches with steppers	any
6	x				x	x					x		x		river birches with steppers	any
7		x			x		x				x			x	boulders on grass- and open grass	add stumps and use boulders?
8	x					x					x	x			mulched and trees	any
9	x			x	x	x				x	has	x			mulched with picnic tables and benches	square tables for 1, add more seats/desks
10		x			x		x				x	x			edge of playing field near modular	any
11		x			x		x				x	x			edge of playing field near modular	any
12		x			x		x				x	x			grassy behind modulars	narrow-- probably assume 18' grid
13	x			stone		x				x	x	x			3 picnic tables on stone (afternoon shade)	rectangular tables for 2, add more seats/desks
14		x			x	x					x	x			small grassy area adjacent to building (afternoon shade)	narrow-- probably picnic tables
15		x			x		x				x		x		large grassy area adjacent to turnaround	any
16		x			x		x				x		x		small grassy area with paved turnaround	narrow-- probably assume 18' grid
17	x				x	x					x	x			grassy triangle near building with trees	21' circle
18		x		x			x				x		x		bus parking lot	any
19		x		x			x				x		x		bus parking lot	any
20		x		x			x				x		x		bus parking lot	any
21		x		x			x				x		x		bus parking lot	any
22			x			x		x	x		x			x	wooded area to clear	any
23	x					x		x		x	x			x	existing outdoor classroom with stump seats	any
24			x			x		x	x		x			x	wooded area to clear	any
25			x			x		x	x		x			x	wooded area to clear	any
26			x			x		x	x		x			x	wooded area to fence and clear	any
27			x			x		x	x		x			x	wooded area to fence and clear	any
28			x			x		x	x		x			x	wooded area to fence and clear	any
29	x			gravel		x		x		x	x			x	existing outdoor classroom with stump seats	any
30			x			x		x	x		x			x	wooded area to fence and clear	any
31		x		x			x				x			x	grassy lawn with some large shrubs and old benches	any
32		x			x		x				x			x	grassy lawn with some large shrubs and old benches	any
33	x				x		x				x			x	grassy lawn with some large shrubs and old benches	6-
34		x			x	x					x			x	small grassy area enclosed with large shrubs	6-8 kids
35		x			x	x					x	x			grassy area between building and garden beds	Fence for autism class
36	x				x		x				x	x			open grassy area with a few trees on edges	fence for autism class
37	x			x			x			x	x		x		existing paved area with circle of benches	could fit 8 kids spaced 6' apart on benches, pl
38	x				x	x					x			x	grassy area with trees on edge	any
39	x				x	x					x	x			open lawn adjacent to bldg with 1 large tree	any

This planning tool is still in development; not yet posted.

COVID-19 Planning: Outdoor Classroom Infrastructure Cost Calculator

Summary: The cost calculator chart below is intended to be used with a companion document that describes outdoor classroom planning strategies, to help estimate infrastructure costs for a wide variety of outdoor infrastructure options.

Directions: 1) Please begin by reading the document entitled, "Outdoor Infrastructure Planning Strategies for Taking Learning Outside as Schools Reopen". Use this document to make a site plan for your outdoor learning needs, including the number and placement of desired outdoor classrooms. Make a note of which of these outdoor spaces have existing infrastructure, and what will be needed for new spaces. 2) Use the cost calculator below to select the types the options you are considering for each outdoor classroom. The infrastructure and supply options listed below are related to: seating, shade and rain shelters, health and hygiene, teaching materials and storage, and landscape improvements that will enhance the outdoor learning experience. There is also an option for mobile outdoor classroom gear, for classes that will meet in a local park or that will use variable locations on the school grounds.)



Assumptions: 1) The following cost estimates are based on an assumption that most K-12 schools will divide their classes into smaller groups for onsite instruction. For the purpose of this estimate, we are assuming those "1/2 class" groups each include between 12-16 students. To calculate cost per 1/2 class, we have used 16 students in the chart below.

2) The "Unit Cost" listed for each item (in Column F) reflects the retail prices of items sourced from the corresponding link, listed on each line. As you refine your own cost estimate for your school, replace these initial estimates in the "Unit Cost" column with the actual cost of items you select. Unit costs below do NOT include sales tax, delivery, or installation unless noted. Lower prices might be available for bulk purchases from some manufacturers. The links are for reference only, and are not meant as endorsements of these products.

Version: 6/26/2020

SEATING

Item Description	Unit Type	Estimated Price Range Per Unit	# of Units Needed Per Class	Unit Cost	Total Cost Per Class of 12-16 Students	Number of Classes Per School	Total Cost Per School
Portable Seating for Students and/or Teachers							
Use existing indoor desks/chairs - move outside (for students and teachers)	per person	\$0	17	\$ -	\$ -		\$ -
Outdoor seat cushion - stadium style	per student	\$6 - \$40	16	\$ 7	\$ 107		\$ -
Outdoor seat cushion - w/backrest	per student	\$16 - \$50	16	\$ 16	\$ 256		\$ -
Folding chair - camping style, for younger students	per student	\$15 - \$40	16	\$ 30	\$ 480		\$ -
Folding chair - camping style with sunshade, for teachers and/or older students	per person	\$45 - \$220	1	\$ 60	\$ 60		\$ -
Rustic Seating - Natural materials, assembled w/community participation							
Log Rounds - rustic, from an arborist or park department	per student	\$0 - varies	16	\$ -	\$ -		\$ -
Large Tree Trunks (8') - professionally finished as seating, roughly \$100/linear ft	per 2 students	\$800	8	\$ 1,500	\$ 12,000		\$ -
Straw bales (organic or pesticide free)	per student	\$20	16	\$ 20	\$ 320		\$ -
Commercially Produced Benches and Picnic Tables							
Picnic Table (6' or 8')	per 2 students	\$200 - \$1,500	8	\$ 650	\$ 5,200		\$ -
Park-Style Bench (8')	per 2 students	\$250 - \$1,500	8	\$ 870	\$ 6,960		\$ -
Bench to Table (5')	per student	\$250 - \$450	16	\$ 250	\$ 4,000		\$ -
						Total Seating Cost for ____ Outdoor Classrooms	\$ -



Mobile Equipment

What do teachers and students need to bring with them outside?

STUDENTS

Tote bag or backpack to carry:

- Water bottle
- Seat cushion
- Clip board
- Pencils
- Sun hat
- Sunscreen
- Weather-appropriate clothing
- Notebooks/books
- Hand sanitizer

Mobile Equipment

TEACHERS

A wagon or cart to carry:

- Water bottle
- Folding chair
- White board
- Clip board with emergency contact information
- Writing materials
- Sun hat
- Sunscreen
- Weather-appropriate clothing
- First aid kit
- Hand sanitizer

Emergency Schoolyard Design Volunteers

This program matches
schools and districts with
design teams to help plan
outdoor classroom layout!

Schools sign up here:
<https://bit.ly/Schools-sign-up>

Designers sign up here:
<https://bit.ly/Design-sign-up>



Drew Kelly Photography

Recorded **Outdoor Learning Health Webinar**

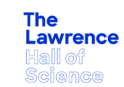
**How to use outdoor learning
spaces to help control
COVID-19 transmission as
schools reopen**

Speakers:

Dr. Caesar Djavaheerian, M.D.
Co-founder and Medical Director at Carbon
Health

Dr. Nooshin Razani, M.D. M.P.H.
Associate Professor of Epidemiology and
Biostatistics and Pediatrics, and Founder and
Director, Center for Nature and Health, UCSF

<https://bit.ly/COVID-Health-Outside>





New working group!

Outdoor School Meals as a COVID-19 Response

New working group focused on helping schools and districts take their meals outside this year.

Focused discussion to gather and produce materials to share.

Interested? Please sign up here to join us:

<http://bit.ly/OutdoorMeals-2020>

What Does Outdoor Learning Look Like in Action?

Golestan Education El Cerrito, California

- Independent school
- Serves 100 children in PreK-3rd grade
- Reopened preschool and summer camps June 22nd
- Received a waiver to open earlier than most schools in California

<https://golestankids.com/>

Careful Planning Process

- Sourced supplies and PPE
- Formed a task force that included each of the school's departments, parents, and a coronavirus clinical expert
- Surveyed parents and staff
- Wrote and implemented a COVID-19 safety protocol
- Coordinate regularly scheduled meetings for parents and staff to communicate openly
- Built many outdoor spaces





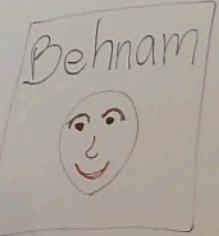


Daily Schedule
9:00-9:15 Welcome
9:15-9:30 Circle
9:30-9:50 Readers Workshop
9:50-10:20 Writers Workshop
10:20-10:50 Snack + Recess
10:50-11:30 Story
11:30-12:00 Free Play
12:00-12:30 Lunch
12:30-1:00 Mindfulness
1:00-2:00 Read aloud
2:15-2:45 Exploration
3:00-3:15 Closing Circle



BEHNAM
"yes I like playing in the hayaat"
"I am 6 years old."
"I am not new to Golestan"

Good Morning K1 V



Goal of the Day
B e h n a m









Investing in outdoor learning for COVID is a step toward a greener, healthier future that's better for kids, their communities, and the planet.



National COVID-19 Outdoor Learning Initiative

Move toward a greener, healthier future outside



<https://www.greenschoolyards.org/covid-learn-outside>

Educating Children Outdoors (ECO)

At Falmouth Public Schools, Falmouth, Maine

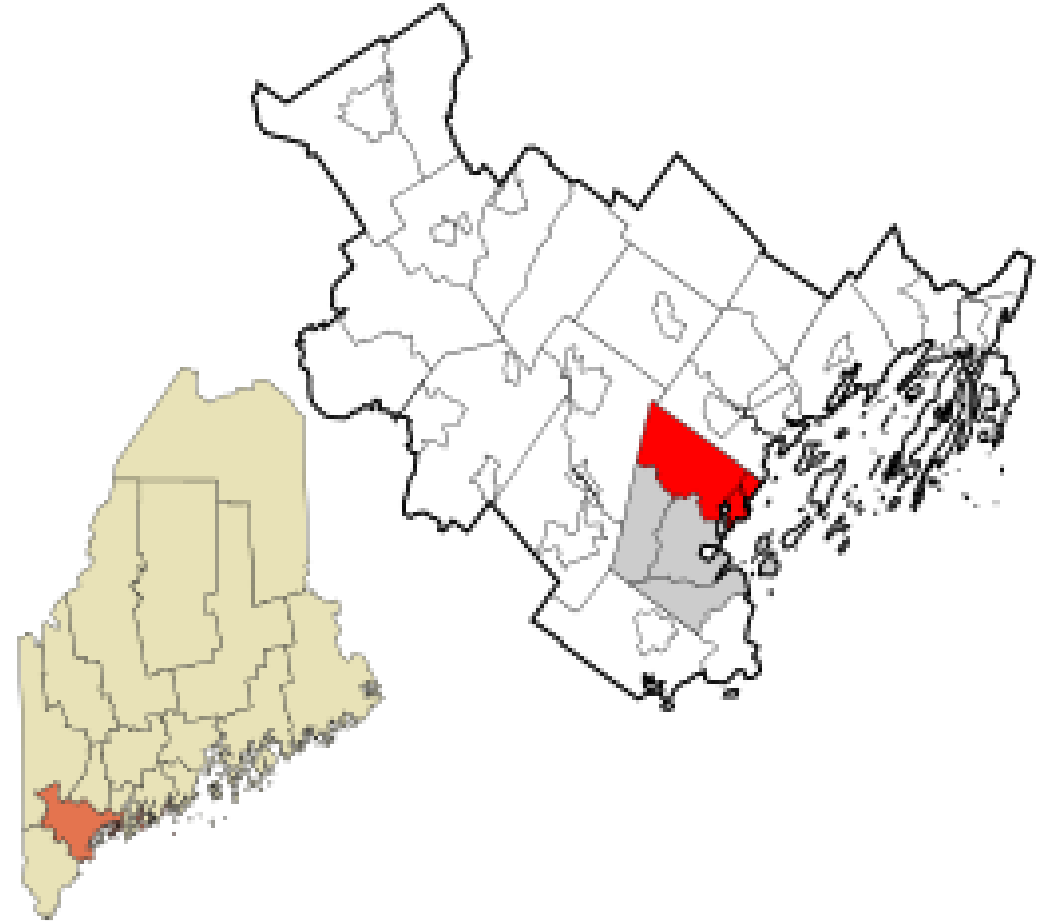
Falmouth, ME Community and Schools

Highest median household income in state,
though quite similar to neighboring towns

Three individual schools (elementary, middle,
and high schools) all on one campus

Pre-K - 12, Roughly 2,300 students

Farm to School Team with
Greenhouse/Garden Coordinator:
Justin Deri, justin.deri@falmouthschools.org



ECO - Educating Children Outdoors Team

Formed in early July 2020

Group of ~35 volunteer teachers

Inspired by:

- a webinar put on by the [Nature Based Education Consortium](#)
- Maine Summer Camps on how learning outside can support reopening of schools during the pandemic. Watch their [webinar](#).



ECO Statement of Purpose

Purpose: Collaborate across the district to create a **culture of outdoor education** for the fall opening and beyond by **enabling teachers** to provide authentic education outdoors:

- **Identify potential outdoor learning spaces** and what **improvements** need to be done to make those spaces most effective.
- List and **purchase classroom material needs** for each school to enable teachers to use an ECO model (e.g. portable seating, clipboard/whiteboards, etc.)
- **Work with administration** (central office, individual schools, police/fire departments) to address any concerns.

ECO Statement of Purpose (Continued)

Purpose: Collaborate across the district to create a **culture of outdoor education** for the fall opening and beyond by **enabling teachers** to provide authentic education outdoors:

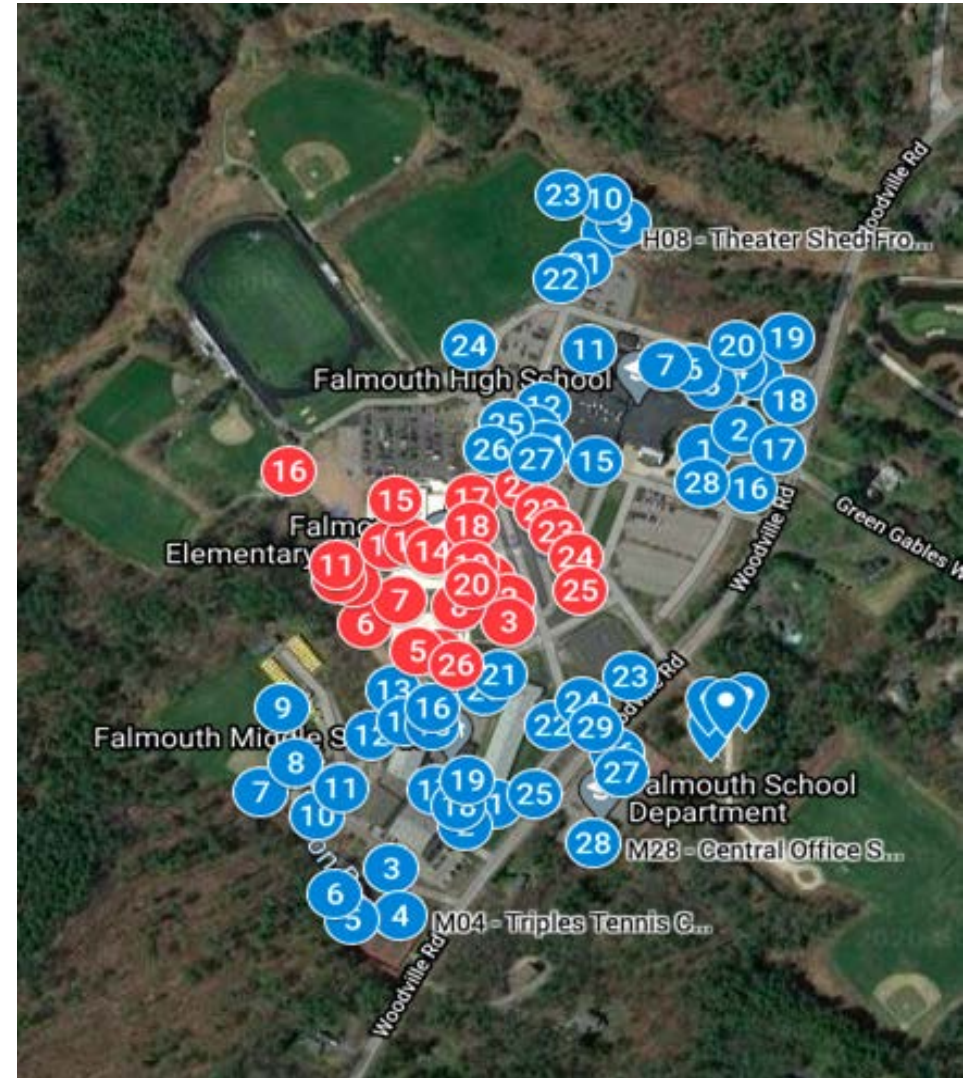
- Implement a **scheduling/reservation system** for outdoor spaces to reduce conflict between teachers and seamlessly integrate into existing calendars for administration and staff.
- Develop **sample curricula** for outdoor education.
- Promote spaces and **set clear guidelines/expectations** within each school
- **Fundraising** through grants, fundraisers, or other means and work with school CFO/Superintendent to add ECO as a line item in the budget

Identify Potential ECO Spaces and Needs

Use mymaps.google.com to create a map of ECO spaces and identify resources available and needed, e.g.:

- Shade (natural, tents, canopies, shade cloth)
- Rain covering
- Seating (none, stones, benches, picnic tables, etc)
- WiFi strength
- Electricity

Each space is uniquely identified by building and number and recorded with Long/Lat info in a spreadsheet



Classroom Needs - Elementary

Individual schools, individual cultures and needs

JOB (Jump Outside Bags)

- Printed backpack - ~\$4
- Yoga mat (cut in half) - \$3.50
- Whiteboard clipboard - \$4
- Dry erase marker/eraser - \$1
- Hand sanitizer - \$1.69



Classroom Needs - Middle School

Individual schools, individual cultures and needs

- Yoga mat (cut in half) - \$3.50
- Whiteboard clipboard - \$4
- Dry erase marker/eraser - \$1

Students already had backpacks, so no JOB.

Seating

- Logs - free from community donations, but not comfortable for long periods
- Yoga mats only worked well elementary students
- Straw bales - cute and can be expensive; however, not durable and problems with fire code under tents
- Picnic tables - community donation program
- Plastic folding chairs - economical in a pinch
 - \$148 / 10 chairs



Tents/rain/shade coverings

Custom made by local sailmaker - fire retardant fabric

- \$2,100 for a 20' x 24' sail
- Four cedar poles ~\$16 each - \$64 total
- Cable, turnbuckles, ferrules - ~\$60 total
- 11 installed around campus

**~ \$2,250 each
installation**



Tents/rain/shade coverings



Canopies

FarmTek.com - WeatherShield Commercial Canopies

- 18'x30' - \$2,300 with fire rated fabric
- 24'x40' - \$3,200 with fire rated fabric
- Does not include hardware for anchoring
- 8 total around high school

Note: the image to the right is the same type of canopy system, but only 14'x20' and used to cover an outdoor kitchen area in school garden.



Enabling Teachers to Be Outside

Having a district wide policy for scheduling and safety allowed teachers to be outside, even when a canopy isn't installed. The goal is to **enable teachers to use the outdoors as much as possible.**





BOULDER VALLEY
SCHOOL DISTRICT

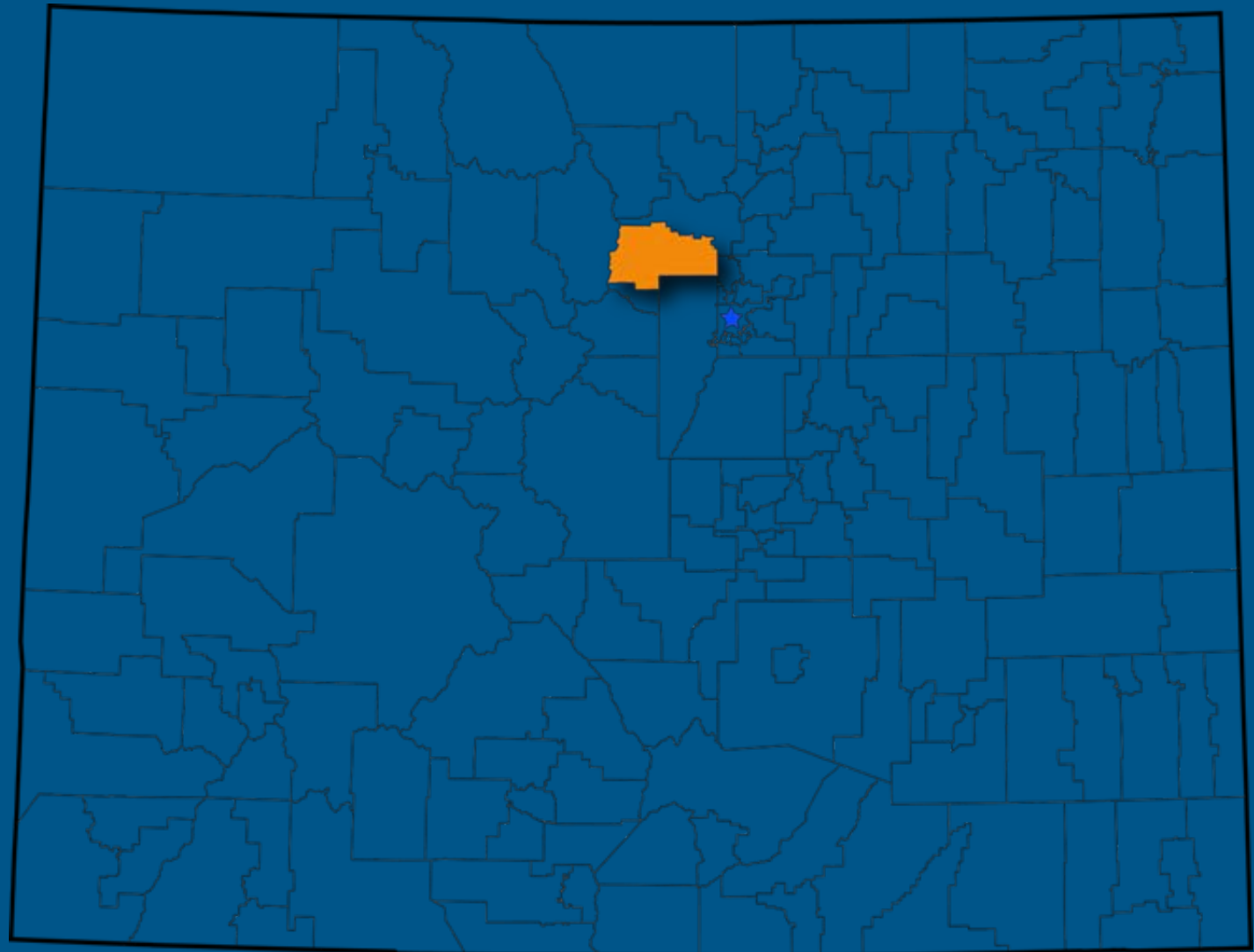
Outdoor Teaching in the Time of COVID: What You Need to Know
Oct. 14, 2020

Outdoor Learning: BVSD District and School Case Study

Ghita Carroll, BVSD, Sustainability Coordinator
Lucas Ketzer, Horizons K-8, Head of School

Quick Facts BVSD

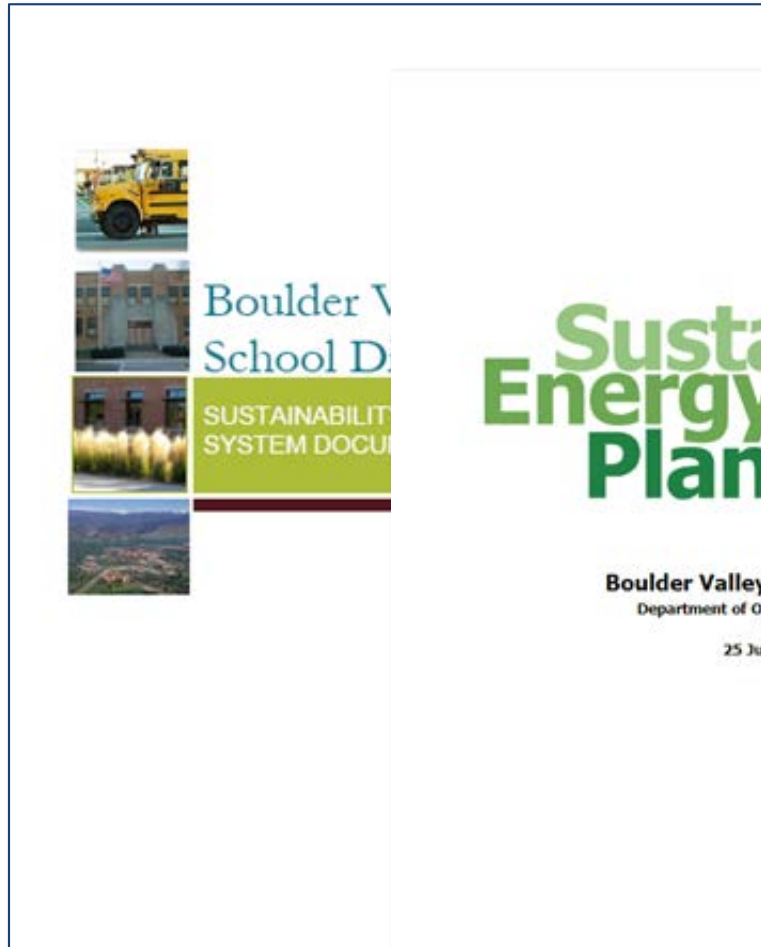
- 56 Schools
- 4.1 million square feet of operation
- 9 Municipalities
- 3 Counties
- 27,000 students and 4,000 staff
- \$576.5 Million Bond (passed 2014)
- 1,908,288 Meals prepared annually



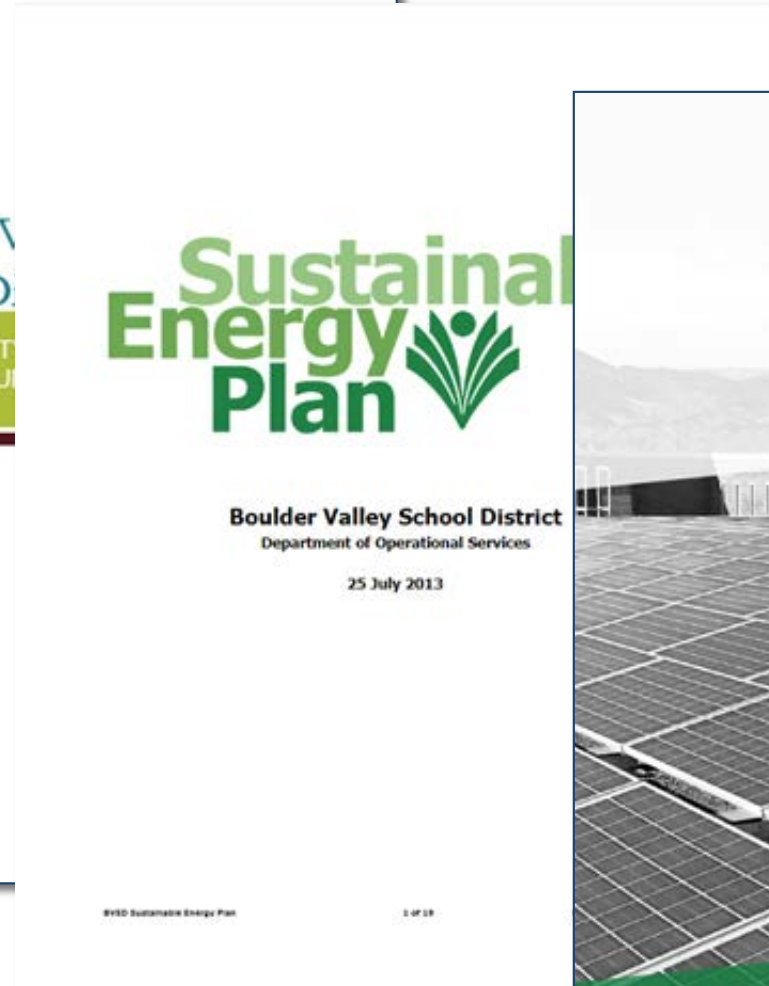
colorado school districts

“The Boulder Valley School District is committed to becoming a leader in environmental sustainability by creating healthy learning environments while providing students with the skills to address the systemic challenges faced by the world in this century.”

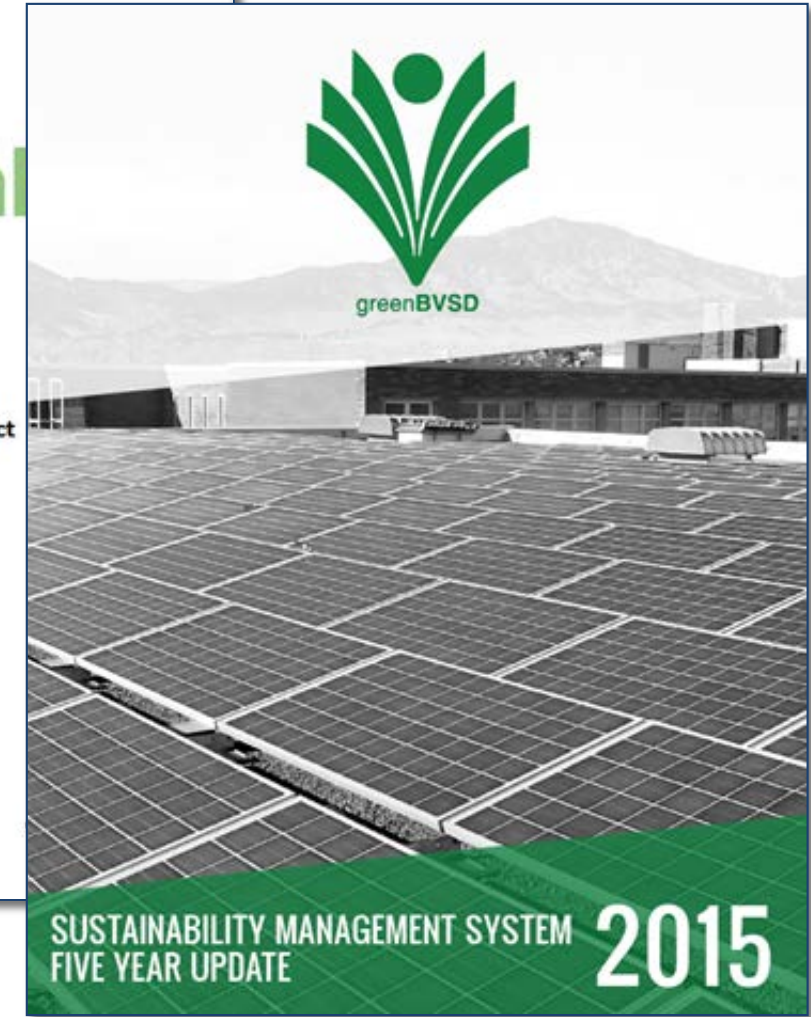
-SMS Vision Statement



2009 SMS



2013 Energy Plan



2015 SMS Update

#Back
Together
BVSD

A stylized green graphic of a person with arms raised, positioned behind the text "Together" and "BVSD". The figure has a circular head and several curved lines representing arms and legs, all in a vibrant green color.

Back Together BVSD: Five phases of Reintroduction

PHASE 1

All learning is remote via Home Learning.



PHASE 2

Limited in-person learning activities for prioritized groups. Home Learning for all other students.



PHASE 3

Hybrid-learning. Students have opportunity to engage in limited in-person learning.



PHASE 4

Most students return to in-person learning. Exceptions are available for blended and online only.



PHASE 5

In-person learning with no health and safety restrictions. Online option via Boulder Universal.



Phase 1+

All BVSD buildings are closed and all learning is conducted remotely.

No Physical Environment

No Transportation



Limited HS athletics and activities per CHSAA. Training and conditioning with health protocols including physical distancing and screening.

Community Schools Child Care Programs for infants/toddlers, preschoolers, elementary, and K-8 students resume.

Students with special needs will receive instruction remotely.

Meals are available to students who attend childcare. Emergency Food Distribution is also provided regionally.

Location - BVSD Sites



[BVSD outdoor classrooms](#)

Additionally- schools have ample green space, shading around the building or near trees where playground areas and benches can be used for outdoor learning with little to no modifications.

Location - Nearby green or open spaces



For any BVSD school, open [Google maps](#), type the name of your school in the search bar and hit return, then clear the search bar and type “parks;” nearby - parks and green spaces will appear.

- For BVSD schools in the City of Boulder, use [Growing Up Boulder's child-friendly city map](#) to locate nearby green spaces to your school.

Google map: search for parks in my city

Central Park

4.6 ★★★★★ (930) · Park

1236 Canyon Blvd · In the Pearl Street Mall
Downtown park offering an educational walk, outdoor amphitheater, grassy spots & Boulder Creek.



Scott Carpenter Park

4.5 ★★★★★ (520) · Park

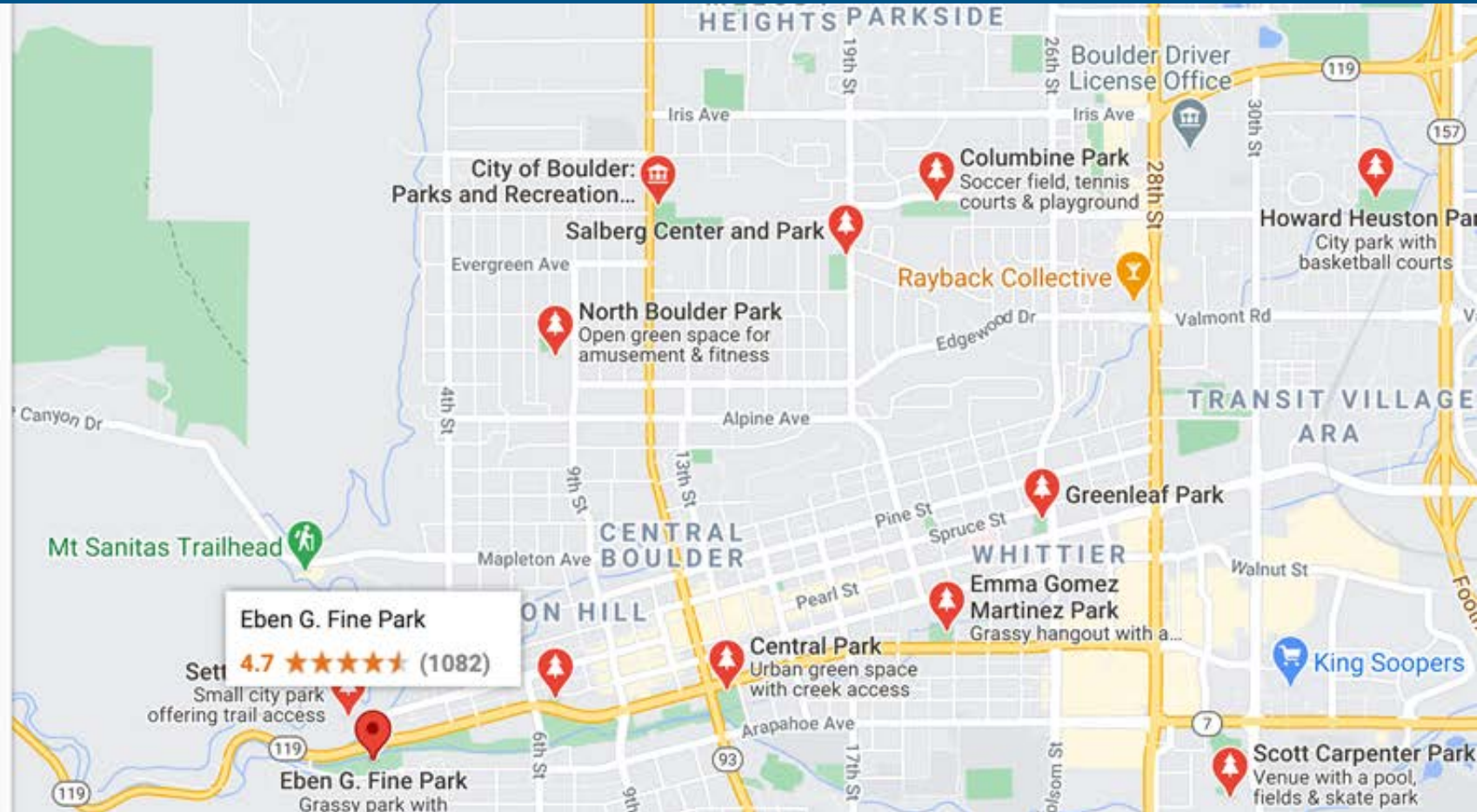
1505 30th St
Recreation center offering an outdoor pool, a skate park, playgrounds & athletic fields.



North Boulder Park

4.6 ★★★★★ (445) · Park

9th St, and, Dellwood Ave
Grassy expanse with a playground, picnic & grilling areas, fitness station & ball fields.



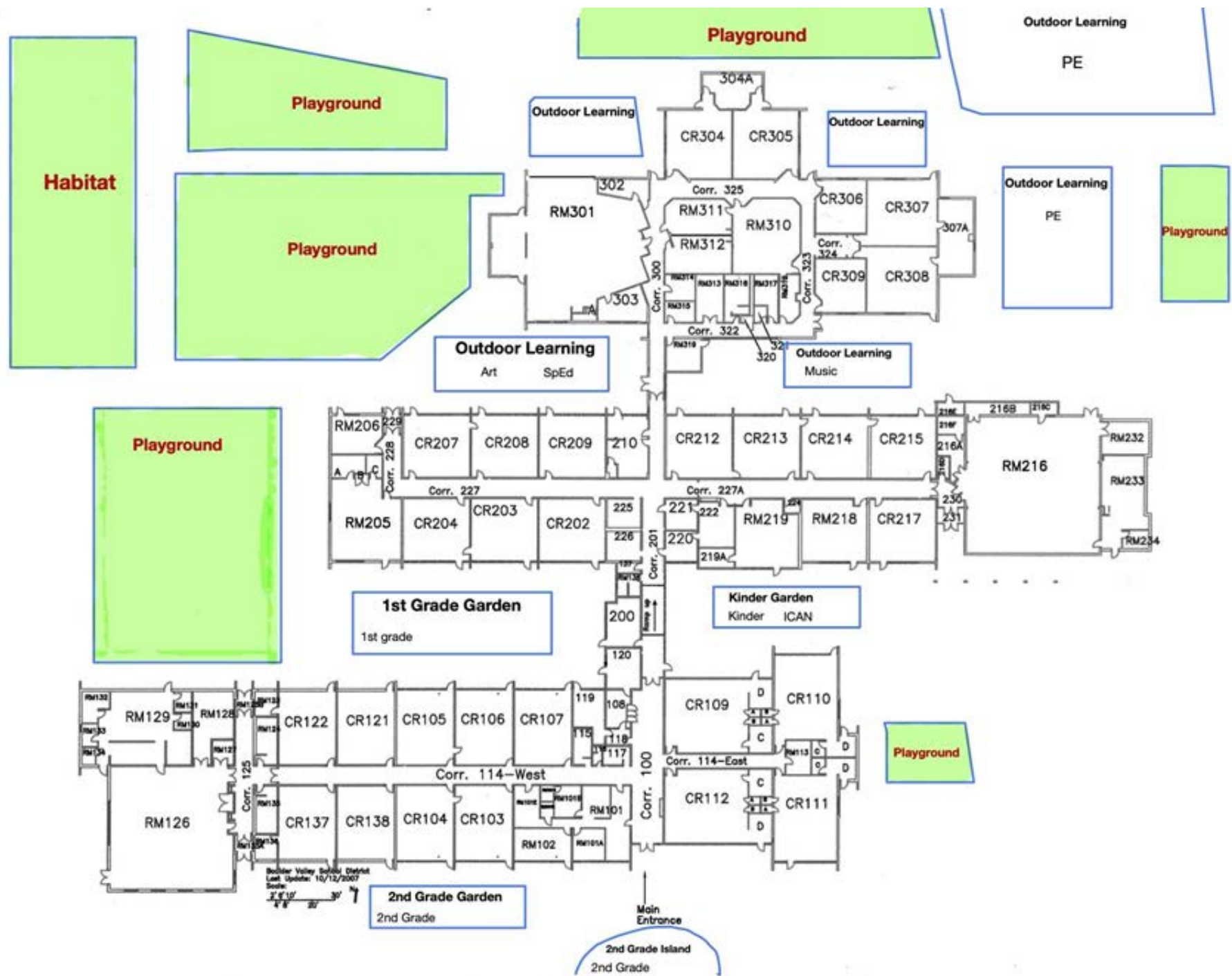










Photo by: Thorne Nature Experience

Planning tools



Materials to consider to for using the space: Shade structures, Seating options (chairs from inside, benches, picnic tables, mats, etc.

Students - Clipboards or white boards, hats, sunscreen, weather appropriate clothing, water bottles

Teacher - Wagon for easily moving materials, white board, voice amplification tool, etc.

A national working group has developed some excellent tools to help schools implement outdoor learning.

- [Outdoor infrastructure planning overview](#)
- [Outdoor infrastructure cost estimate tool](#)

Seating



Here are [configuration options](#) for outdoor learning which you could create using spray chalk.

Partners



Our community has a terrific collaborative of outdoor and environmental organizations that work together called the E-Movement. Staff of E-movement organizations are trained in outdoor learning strategies and can help with anything from group management to leading place-based lessons. For more details, click [here](#).

Next steps



1. Begin thinking about how this opportunity might work at your school site.
2. Consider identifying someone at your school who can help schedule the use of your school's outdoor spaces, just as you would with common indoor spaces (e.g. cafeteria and gymnasiums).
3. Consider how the outdoors can be used in different Phases. E.g. back to school gatherings, meet the teacher, extra curriculars, student learning, support for specific learners or pods, etc.

Remember to always follow safety protocols identified in the [Reintroduction Plan](#)

In alignment with Colorado's phase of being safer "in the great outdoors," we can use school grounds and local parks as outdoor classrooms to provide **fresh air, hands-on learning opportunities, and mental and physical health benefits**. Using the outdoors will **help slow the spread of the virus** and **increase opportunities for in-person learning**.

Please see the outlined information below and complete this [form](#) if you would like further assistance.

[Schools Beat Earlier Plagues with Outdoor Classes](#)

[Interesting article about outdoor learning from OT perspective](#)

Survey for principals about outdoor learning spaces

[in Google forms]

What might you need to make an outdoor classroom/outdoor learning successful at your site?

- ☐ Seating
- ☐ Shade/shelter
- ☐ Clothing for different weather
- ☐ Clipboards for students
- ☐ Whiteboards for teachers
- ☐ Carts or sheds for storing teacher supplies
- ☐ Other: _____

Please indicate your interest in the following resources that may be available for your school, in regards to supporting teaching and learning outside:

- ☐ Help for administration in figuring out how to create (or upgrade) an outdoor space for learning
- ☐ Help for administration in figuring out how to USE an outdoor space for learning (instructional/staffing models & schedules)
- ☐ Support for teachers in learning how to use outdoor spaces for teaching and learning

Growing Up Boulder (GUB) is
Boulder's child and youth-
friendly city initiative

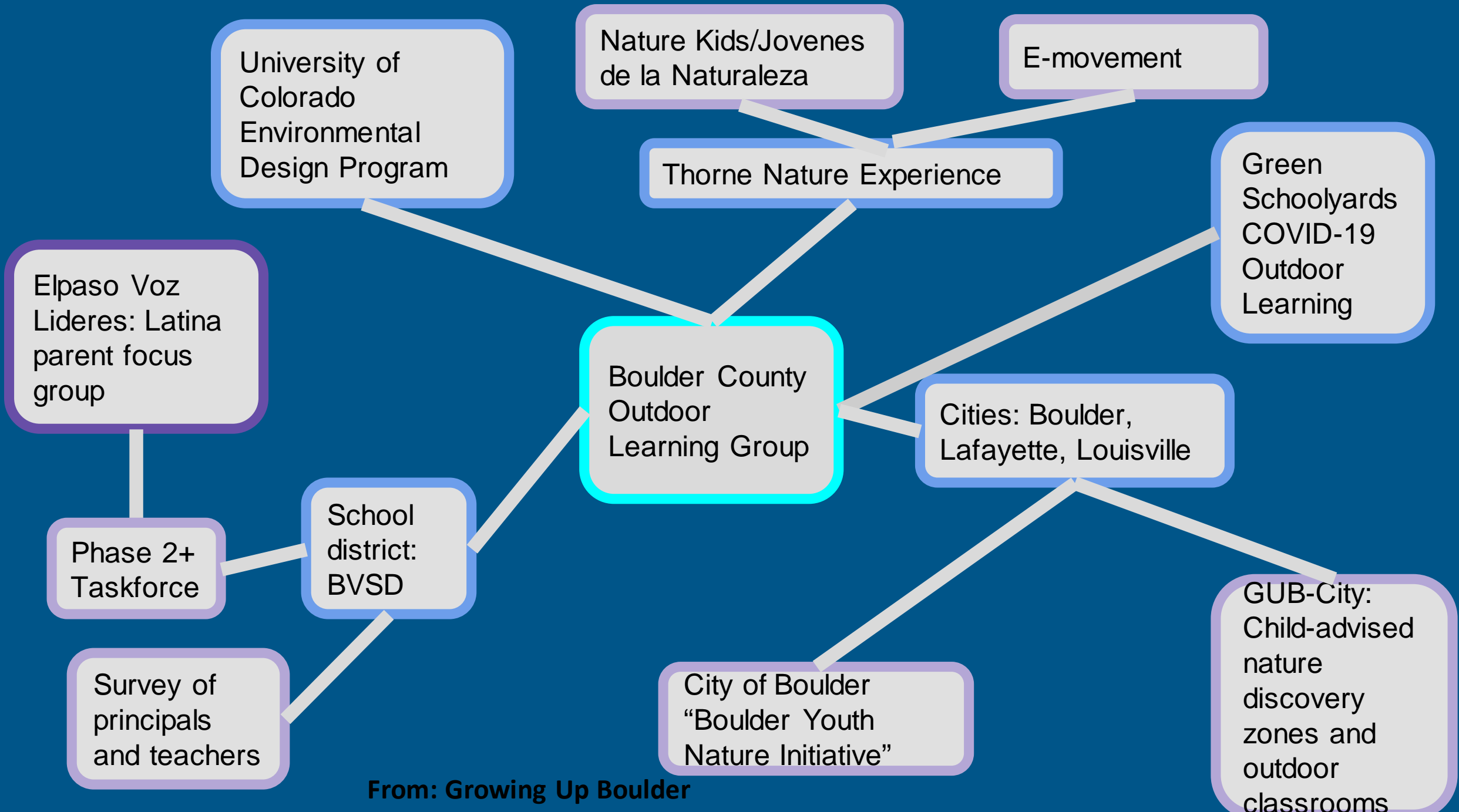


Mission: To empower Boulder's young people with opportunities for inclusion, influence and deliberation on local issues that affect their lives

Partnership since 2009: Between CU's CEDaR Center, City of Boulder, and Boulder Valley School District



Photo by Stephen Cardinale



From: Growing Up Boulder

Focus Group with Voz “Lideres Comunitarias” [in Spanish]

- Leaders were excited to have their children learn outside because:
 - Their children were having trouble learning online
 - They wanted them to be in nature
 - It would be a new experience
 - It is safer
 - They could see their classmates and teachers in person



Outdoor Learning in Action

Why Outdoor Learning?

How have things been going?

How did the school prepare teachers?

What lessons have we learned?

What is the plan for the future?





Link to CBS
Denver Story:
[CBS Story Link](#)

Lessons Learned!

Contact: Ghita.carroll@bvsd.org and Lucas.ketzer@bvsd.org



Contact Information

Ghita Carroll

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Lucas Ketzer

Lucas.Ketzer@bvsd.org

Sharon Danks

Sharon@greenschoolyards.org

Phoebe Beierle

pbeierle@usgbc.org



**THE CENTER
FOR GREEN SCHOOLS**



THANK YOU

