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Why?

As school administrators, teachers, and parents are contemplating possible scenarios for reopening schools safely, underutilized schoolyards offer additional square footage that could be repurposed to increase classroom capacity and facilitate social distancing.

Inspired by Baltimore’s *Design for Distancing Competition* and building on the success of the Community Design Collaborative’s *Design Assistance In Demand A.I.D.* initiative, the *Design A.I.D.: Outdoor Learning Spaces Design Ideas Competition and Design Guide* was developed.
WHY CREATE THE DESIGN AID: OUTDOOR LEARNING SPACES DESIGN GUIDE?

School districts all over the country are challenged with how to safely reopen schools. While this crisis presents many challenges, this is a unique opportunity to rethink how we use our school facilities. The Community Design Collaborative is uniquely positioned to connect school communities with talented designers from the Philadelphia area and beyond to envision inexpensive and flexible outdoor learning environments.

At the offset of the pandemic, the Community Design Collaborative launched the Design A.I.D. initiative to provide easily-implemented design solutions to nonprofit organizations and small businesses serving vulnerable populations. Since March, volunteer design professionals have developed customized plans for a homeless shelter, church, bodega, restaurants, and organizations serving recent immigrants. In a similar fashion, the Design A.I.D.: Outdoor Learning Spaces Design Guide will provide detailed examples that will provide schools, and other community groups, with inspiration for creating unique and engaging outdoor learning models which may be fabricated and installed by the school community—ideally with input and participation from the students themselves—and then replicated anywhere and used far into the future, beyond the pandemic.
Background
THE CHALLENGE

Students haven’t seen the inside of a classroom for months and they’ve been missing in-person interaction with their teachers and peers. They’ve tried school on a screen, but it’s just not the same. So, how can schools turn underutilized schoolyards into outdoor classrooms that could enable students to safely return to school?

As school districts and parents all over the country have been contemplating the possible scenarios for returning to school, history indicates that we should be (re)turning to the outdoors for answers. With funding from the William Penn Foundation, the Community Design Collaborative’s Design Assistance In Demand (A.I.D.): Outdoor Learning Spaces Design Ideas Competition encouraged architects, designers, educators, parents, communities — local and afar — to envision innovative and creative solutions for outdoor learning in a time of global crisis — and beyond — to bring all of our students back to school as soon as safely possible and to expand opportunities for learning in the extended future.

School buildings have a limited amount of square footage to address the proper social distancing necessary for all students to return to school, so we look to the typically underused footprint of schoolyards to expand learning environments to the outdoor classroom. While this challenge was not site specific, design solutions were considered for typical paved schoolyards. Designs were to address a range of interventions, from the simple idea of bringing existing classroom furniture outdoors to a kit of parts that can be mixed and matched in various schools and sites, and may be constructed by school and community volunteers.

Through this initiative, 5-6 pilot outdoor learning spaces will be implemented with the goal of serving those schools most in need. These sites will, hopefully, be catalysts, encouraging other schools to implement their own outdoor learning spaces.
**DESIGN GOALS**

- Welcoming, safe, accessible, and equitable
- Vibrant, intriguing, and playful
- Supporting teacher-student interactions
- Spaces that foster learning (all components/aspects of the design should strive to incorporate opportunities for learning, i.e., if there is a roof element, it can incorporate a system of rain collection to teach about stormwater management)
- Inclusive of all modalities of learning: kinesthetic (moving), visual (seeing), auditory (hearing), and tactile (touching)
- Appropriate for elementary (K-5) schools with special focus on the youngest students in grades K-3
- Promoting creativity and ingenuity in children

**DESIGN PARAMETERS**

- Be fabricated and installed for $5000 or less
- Easily fabricated and assembled quickly by volunteers (ideally with assistance from students)
- Be temporary, yet inspiring the potential for permanent installations.
- Accommodate year-round learning (all four seasons)
- Be low maintenance (in ease and cost)
- Make creative use of everyday materials and items prioritizing the use of durable, reusable, and sustainable materials
- Maximize accessibility throughout the site for all abilities
- Meet minimum code requirements for structures, railings, ramps, surfaces, etc.
- Consider a menu of design elements that are versatile and can be configured to the needs of multiple sites
- Accommodate clear lines of sight for supervision of a 30-student class by teachers
- Include opportunities for smaller groups or individual learning
- Integrate power, water, and wifi, as possible
- Be easily secured (security in some cases may be provided by an existing fence surrounding the schoolyard)
- Include opportunities for storage, writing and tackable surfaces
- Consider the design for one classroom and/or how multiple classrooms may be arranged within one schoolyard space
PUBLIC HEALTH RECOMMENDATIONS

- Incorporate public health guidance from the local, state, and federal requirements to maintain the health and safety of school staff and students.
- Embrace the Guiding Principles of Inclusive Healthy Places. These guiding principles can inform strategies for shaping public space projects that promote accessibility and diverse social interactions, reflect shared social values, advance equity, and are welcoming for all.

SUGGESTED STRATEGIES MAY INCLUDE:

- Seating that supports physical distancing and universal design for all abilities
- Proper signage for physical distancing that includes information on how to stop the spread of COVID-19. All signage should be available in languages appropriate to the host community
- Touchless hand-washing locations and automatic dispensers for hand sanitizer

ADDITIONAL CONSIDERATIONS

PLANNING & ACCESS

Design teams may review and use the following considerations to guide their designs, but are not required to address them in their submission.

- Designs should consider impact on surrounding residential areas.
- Designs are to be attractive and add to the overall look and appeal of the school and grounds.
- Designs should consider protection from surrounding vehicular traffic.
- Grade should be maintained, or changes should be easily navigable without gaps or steps.
- Designs should account for heavy traffic/usage.
- Designs should consider the increased need for bike or scooter parking within the schoolyard space.

PLAYFUL LEARNING

Playful Learning Landscapes uses an evidence-based approach that harnesses guided play in spaces designed for children to discover, explore, and learn.

- Encourage children to engage in the type of play known to support learning (i.e., joyful, meaningful, actively engaging, and socially interactive)
- Incorporate 21st century learning goals (i.e., 6 Cs; communication, collaboration, content, critical thinking, creative innovation, and confidence)
- Include elements that spark conversation & enriching interactions
- Integrate, where possible, elements of community culture and identity
COMPETITION BRIEF

Much of the previous information was included in the competition brief which was created to launch the competition, you can access the full brief [here](#).
How To
HOW TO USE THIS GUIDE

The Design A.I.D.: Outdoor Learning Spaces Design Ideas Competition and Design Guide is presented by the Community Design Collaborative. The goal of this competition is to develop a library of designs that schools can adapt for use at their specific sites with the support of their students, families, and neighbors.

While not site-specific, the following design solutions have been considered with typical Philadelphia schoolyards in mind and each design can be adapted to most any underutilized paved space of varying scales, with permission from the site owner.

When selecting a design for implementation, we encourage you to engage your community in that selection to ensure that it will meet the needs of your community and will be used, loved, and cared for.

While the intention is for all design solutions to be fabricated and installed for no more than $5000, we recognize that a few of the solutions may require additional funds if built in their entirety and donations of materials and/or labor can not be secured.

Design solutions address a range of interventions, from the simple idea of bringing existing classroom furniture outdoors, to a full schoolyard design incorporating all new elements, to a kit of parts that can be mixed and matched within various schools and sites. Additionally, some designs that appear to be all-inclusive may also be drawn upon for only one or two of its components. Designs may or may not be replicated in their entirety depending on community needs and specific site conditions.

Designs may or may not take security into consideration. Need and opportunities for securing the interventions must be considered based on the conditions of the selected site.

This guide is available to all free of charge. Our goal is to share it broadly in order to assist as many schools and communities as possible.
DESIGN ASSEMBLY DIFFICULTY

To determine the skill set and tools you may need for your chosen solution, we have included Design Assembly Difficulty Level icons for assistance.

Please note that some designs may indicate more than one icon which means that there are several components of the design and each may require a different level of assembly difficulty. In addition, material lists have been included to help identify what you may need to acquire to create your outdoor learning space.

No Tools
Assembly required with strength and sweat

Hand Tools
Hammer, wrenches, screwdrivers, mallet, hand saw, etc.

Power Tools
Drill, screw or nail guns, chop saw, etc.

Specialized Skills
VR/AR, welding, plumbing, woodturning, 3d printing, electrical, etc.
HOW TO GET STARTED

Design ideas contained in this guide are intended for schoolyards and other paved open space to serve a range of learning environments. Before selecting a design idea, or any of its components, from the Design Guide, we recommend the following steps to start your community’s outdoor learning space today!

- Select a site(s) and get permission from the property owner.
- Establish a core group to lead the effort.
- Engage the community and stakeholders in choosing the design(s).
- Consider the materials needed and their potential cost and availability.
- Consider the level of assembly difficulty and the resources available to you.
- Understand permitting requirements in your municipality.
- Adapt designs as needed to accommodate the specific characteristics of the site and needs of the user group(s).
- Adapt the design to reflect the culture of the place.
- Confirm public health guidelines that are specific to the site and use.
- Consider the need for signage to assist users of the spaces.

Look to your community to help think through these ideas and how a whole approach, or the use of components, will best address the needs. Your community is your strongest asset – reach out for their assistance and to help broaden your network of support. And remember, it is possible to adapt solutions for a smaller space, class size, and budget. Be resourceful and creative!

Although there are public health recommendations listed in this guide, please be sure to check the most up-to-date guidelines of your municipality at the time of planning and assembly.
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Outdoor Learning Spaces Design Ideas

ROUND 1
Deadline Date: August 26, 2020

Design ideas are presented in the order in which they were submitted
THE PANEL

All design submissions were reviewed by a panel and evaluated for inclusion in this Design Guide based on compliance with the listed criteria of **Design Goals, Design Parameters and Public Health Recommendations**.

We thank and recognize the following panel members and the organizations they represent for their time and expertise.

**SCHOOL DISTRICT OF PHILADELPHIA**

**Laura Lau**  
*Lead Grants Development and Support Specialist*

**Mary Lee**, M. Ed., ALEP  
*Educational Facilities Planner, Office of Grade and Space Planning*

**Daniel P. Mullin**, RLA, ASLA  
*Site Improvement Coordinator, Office of Capital Programs*

**Kenneth Rux**, P.E.  
*Design Project Manager, Office of Capital Programs*

**Paula Sahm**  
*Educational Facilities Planner, Office of Early Childhood Education*

**Nicole Ward**, AIA, NCARB  
*Design Manager, Office of Capital Programs*

**PLAYFUL LEARNING LANDSCAPES**

**Rachael Todaro**, PhD  
*Post-doctoral Research Fellow / Science Advisor*

**Doug Piper**  
*Lab Coordinator*

**FLEISHER ART MEMORIAL**

**Elizabeth Grimaldi**  
*Executive Director*

**COMMUNITY DESIGN COLLABORATIVE**

**Alice K. Berman**, AIA  
*Owner/Principal, Alice K. Berman Associates*

**Jeffrey Brummer**, AIA, LEED AP  
*Owner, Jeffrey Brummer Architects*

**Maria Sourbeer**  
*Vice President of Development, Shift Capital*

**Adam Supplee**, RLA, ASLA, AICP, LEED AP  
*Landscape Architect/ Planner*

*Traffic Planning & Design, The American Society of Landscape Architects*
DESIGN SOLUTION

In the wild, hummingbirds make their nests out of soft, flexible materials, allowing their nests to expand as their young grow. Project Hummingbird uses this same concept of accommodation in its design, as its cost-efficient materials and easy set-up allow for adaptable design. Hummingbird has two main structures, the tarp enclosure ($150 each), and the fabric enclosure ($260 each). The tarp enclosure is weather-resistant and serves as the base of the classroom, with storage and the teacher’s desk located beneath it. The fabric enclosure can be added upon to accommodate growing classes, or changed in shape to function as different education environments, such as a covered reading area, or a place to do arts and crafts. One fabric unit can seat 12 socially distanced student desks. Additionally, the sheer fabric can be moved easily along the clotheslines across the poles, allowing for adjustable lighting in the student areas.
Design Assembly Difficulty

- **Hand Tools**: hammers, wrenches, screwdrivers, mallet, hand saw, etc.
- **Power Tools**: No Tools
- **Specialized Skills**: No Tools

**Tarp Assembly**
1. Place 6 Footpads 10’ apart
2. Hammer 3 Steel pegs into each Footpad.
3. Place 4 8’ poles and 2 10’ poles into their respective Footpads, and tighten.
4. Place Tarp, aligning holes with poles and fasten.
5. Reinforce the 4 8’ poles with tent cords tied to pegs in the ground 4’ away.

**Fabric Assembly**
1. Place 6 Footpads in two arrays of 3 poles spaced 10’ from each other. The arrays 20’ from each other.
2. Hammer 3 Steel pegs into each Footpad.
3. Place 6 8’ poles
4. Connect the 4 corner poles with 20ft of clothesline along the top.
5. Clip 4 12 yard lengths of Fabric to Clothesline using Heavy Duty Clothespins.
6. (Optional) Use Curtain Tiebacks to create openings in the Fabric.

**Materials Required**

- **Tarp Enclosure (~$155)**
  - 4 8’ Aluminum Poles. ($13 ea.)
  - 2 10’ Aluminum Poles. ($19 ea.)
  - 6 1 ¾” Footpads. ($5 ea.)
  - 22 9” Steel Pegs (~ $0.37 ea.)
  - 1 10’ X 40’ Tarp ($20 ea.)
  - 4 13’ Tent Cords (~$1.66 ea.)
- **Fabric Enclosure (~$259)**
  - 6 8’ Aluminum Poles. ($13 ea.)
  - 6 1 ¾” Footpads. ($5 ea.)
  - 18 9” Steel Pegs (~ $0.37 ea.)
  - 100ft Clothesline (~$0.04/ft.)
  - 48yds 118” Sheer Voile (~ $2.79/yd.)
  - 20 Clothespins (20 for $6.50)
A school activity space for learning, playing and performing.

Shiftspace partnered with a local elementary school to prototype and deploy a system of prefabricated units to make up areas for outdoor classrooms to help reinvigorate an atrium space at the heart of their school. The faculty expressed a desire to have a space that was less a “play” space and more a learning, performance, and meditation space.

The atrium features a central spine walkway that doubles as a space for yoga classes and events. This spine is composed of prefabricated decks that are set in playground mulch and enhanced with native plantings. Vibrant geometric outcroppings become benches, informal stage elements and planters that add a visual layering to the path. These prefabricated elements are made from HDPE sheets and standard framing structure allowing them to create classroom seating and stage space for both young and older students. These units were specifically designed for this atrium space however, our designs can be re-imagined for site specific works with minor changes needed. Our studio goal is to create semi-permanent space to enrich the well being of our schools and communities.
Heart of the School: a pop-up experience

**Design Assembly Difficulty**

No Tools  Hand Tools  Power Tools  Specialized Skills

**Design Details**

**STAGE**
- Height: 32'
- Width: 132'
- Depth: 266'

**TREE PLANTER**
- Height: 48'
- Width: 205'
- Depth: 112'

**WATER TABLE**
- Height: 30'
- Width: 86'
- Depth: 54'

**BENCH**
- Height: 24'
- Width: 270'
- Depth: 60'

**LOUNGING SLOPE**
- Height: 36'
- Width: 110'
- Depth: 50'

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**Materials Required**

**Sculptural Elements**
- HDPE or PVC 3/4" Sheets
- Pressure Treated 2x Framing
- Stainless Steel fasteners
- Exterior Paint

**Deck Walkway**
- Composite Deck
- Pressure Treated 2x Framing
- Stainless Steel fasteners

**Playground Mulch**
Buildings + Grounds + Community

Cynthia Hron

https://cindihron.myportfolio.com

Work with the site as it is by leveraging existing site infrastructure. Look at existing conditions with new eyes, embrace what is there to create a palimpsest, a layering, where new layers do not erase all traces of what came before. Do a site inventory to identify exterior water and electrical access, patterns of egress, community assets, unprogramed outdoor spaces, and programmed spaces that can serve double duty to create an exciting school experience.

The ground plane can define program areas that provide teachers with specific classroom space. Using paint, claim space with vibrant colors and text that identifies social distancing, teacher names, subjects, and welcoming signage in the languages most fitting to your school community. Cohort grouping is supported by CDC recommendations.

Don’t just make it about COVID think about how this is a catalyst to consider education futures and a new relationship with the environment.
Buildings + Grounds + Community

Cynthia Hron

Design Details

Design Assembly Difficulty

Materials

Paint & chalk
Plants, shrubs & trees (rentals)
Mobile planters (rentals)
Shade Sails & Hardware
The Schoolyard Kit

Cloud Gehshan

cloudgehshan.com

@cloudgehshan

Design Solution Description

The Schoolyard Kit is a versatile kit-of-parts for transforming schoolyards and parking lots into outdoor classrooms that emphasize physical distancing.

1. A painted grid of dots spaced 6’ apart allows for appropriate physical distancing for children in the classroom.
2. Educational graphics are interspersed throughout the grid to facilitate learning.
3. Painted blocks display health-related messaging and can be customized by individual students. They can also serve as a seat or desk.
4. Mobile chalkboards can be moved around for optimal positioning to conduct a class or be used as a divider.
5. Artificial grass circles give students their own mobile space, helping define appropriate physical distance.

The Kit-of-parts aims at reducing disease transmission by utilizing visual and spatial representations of national health recommendations in the outdoor educational setting.
The Schoolyard Kit
Cloud Gehshan

DESIGN DETAILS

Materials Required
1 Gallon of paint per color
Paint brushes
Paint rollers
1 Tape measure
1 String or rope
**DESIGN DETAILS**

1. **Chalk board consists of:**
   - 3/4" thick x 4'-0" x 8'-0" structural pine sheathing
   - 4'-0" x 8'-0" graphite nebula laminate sheet
   - 2" x 4" x 8'-0" length wood stud
   - (18+) countersunk wood screws
   - 4) Titan 3 inch rubber swivel caster wheels with countersunk fasteners

2. **Wooden box consists of:**
   - 3/8" thick x 24" x 24" pine sheathing
   - 24 3/4" x 24" x 24" structural pine sheathing
   - 2" x 2" x 24" length wood blocking
   - (4) 1" diameter, circular artificial turf mat
   - (1+) cans of black spray paint as needed

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**Design Assembly Difficulty**

- **No Tools**
- **Hand Tools**
  - hammer, wrenches, screwdrivers, mallet, hand saw
- **Power Tools**
  - drills, screw or nail guns, chop saw
- **Specialized Skills**
  - VR/AR, welding, plumbing, woodturning, 3d printing, electrical

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**Materials Required**

(1) Chalk board consists of:
- 3/4" thick x 4'-0" x 8'-0" structural pine sheathing
- slides into upright panels, adhere graphite laminate sheet to both sides

(2) 3/4" thick x 4' x 8' structural pine sheathing, fastened to 1" x 1" wood block, adhere graphite laminate sheet to both sides

(3) 2" x 4" wood stud is fastened to pine sheathing with countersunk wood screws

(4) 3/8" thick x 24" x 24" pine sheathing fastened to wood block w/ countersunk screws

(5) 2" x 2" vertical wood blocks and fastened to sheathing

(6) Cut 2" x 4" wood stud is fastened to pine sheathing with countersunk wood screws

(7) Rubber caster wheels fastened to wood stud with countersunk fasteners

(8) Ruber caster wheels fastened to wood stud

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**Artificial Turf Mat**

- **Tier 1:** low-grade
- **Tier 2:** mid-grade
- **Tier 3:** high-grade

---

**Artificial Turf Material Options**

(1) 2" x 4" x 8'-0" length wood stud
(16+) countersunk wood screws
(4) Titan 3 inch rubber swivel caster wheels with countersunk fasteners
(4) 1" diameter, circular artificial turf mat
(1+) cans of black spray paint as needed

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**Stencil Graphics Box Layout**

- **Stencil Graphics Box Layout 1**
- **Stencil Graphics Box Layout 2**

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**Exploded Axonometric View**

- Chalk Board Concept 1 Model
- Chalk Board Concept 2 Model
- Wooden Box Concept
- Exploded Axonometric View
- Exploded Axonometric View

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**The Schoolyard Kit**

**Cloud Gehshan**

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**Wooden Box Concept**

- 3'-0" diameter, circular artificial turf mat
- (1 per child) 3'-0" diameter, circular artificial turf mat
- Kids can decorate and paint to make them more unique!
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Groundscapes focuses on the flexibility of playful and functional elements that can be synthesized to enhance learning needs.

The influence of an outdoor environment cannot be overstated for developing minds, especially during a pandemic. This unique design matrix uses graphic surfaces, movable furniture, and an adjustable canopy to provide a learning setup inclusive of the imaginations of many, and includes tactile surfaces, vibrant hues, and sound-curating partitions.

The ground is demarcated by playful colors and geometry—circles spaced 6’ apart deal with Covid concerns, while connective elements suggest social groupings.

Stackable furniture and movable partitions can be arranged for different class configurations, and students are encouraged to help put them away afterwards.

The canopy cover offers shade subject to environmental needs, using a basic framing structure with optional solar, planted or polycarbonate panels. Greenery and an interactive box garden nearby allow for students to feel at ease while learning.
Menu of Elements

A: Sliding Partition (curve)
B: Sliding Partition (straight)
C: Study Pod (cone)
D: Study Pod (pyramid)
E: Canopy Panel (solar)
F: Canopy Panel (polycarbonate)
G: Canopy Panel (plant grid)
H: Seat

Three Scenarios

All class for 32 students
E + F + G + H

Half class for 15 students
A + B + C + F + H

Casual group
A + B + C + E + H

Materials Required

Color Paint
Steel Column
Wood Beam
Solar Panel
Polycarbonate Panel
Planter Grid Panel
Net Pod
Sliding Partition
Furniture
White Board
Tack Board
Design Solution Description

Our proposal consists of the use of two basic elements, some metal plates of 6 different types and some wooden slats. With these elements, three types of structural ribs are built with which a space is generated with a two-high tier (considering the maximum allowed heights) for 30 people, green beds and a table with seats.

The construction system is designed so that it can be built by people with basic or no knowledge in construction, since with a simple drilling system, holes can be made easily and assembled as if it were a LEGO game.

We have designed the proposal considering that the terrain is slightly sloping. In the case of being a soft soil, concrete cubes would be used as the foundation, as can be seen in the drawing. In the case of a concrete floor, the cube would be eliminated and it would be attached directly with the plates to the floor.
Participatory projects require inclusive designs. But at the same time, the projects must endure in time. For this reason we propose a durable construction system, where the metal elements resist loads, but the material with which it is built is wood.

The main maintenance that the project requires is to protect the wood from the sun with some type of oil or varnish and check the nuts once a year.

Similar projects made by us have lasted for more than five years with no extra maintenance costs.

**Materials Required**

- 240 Metal plate 3/16 thickness
- 200 Wooden slat 120"x2"x1"
- 65 Wooden slat 120"x7"x1 1/4"
- 800 Bolts and nuts 5/16"
Design Solution Description

The “Outdoor Classroom Kit” seeks to answer one of many questions schools are grappling with during our current pandemic: How can schools utilize available outdoor space to allow students to safely return to school?

The design uses the Center for Disease Control’s (CDC) recommended 6ft social distancing as its main design goal. The floor plan is a 54ft X 30ft grid divided into forty-five 6ft student zones. These zones allow for traditional classroom/lecture layouts or for flexible collaboration layouts. The design also offers visual guidance on how to keep a 6ft distance. Each zone is able to be colored and personalized by the student.

The design is a kit of parts that may be assembled in pieces to make the whole. The exterior consists of wall panels with triangular opening to allow for easy circulation in and around the structure as well as cross ventilation. Each opening has the potential to be painted whatever color the school desires to add interest for the students. PVC panels are used to help diffuse light, reduce glare, and protect students from the elements.
Outdoor Classroom Kit

USA Architects

USAarchitects.com

DESIGN DETAILS

The "Outdoor Classroom Kit" has been designed to be assembled like a set of furniture instructions. The two main pieces to the kit are the roof grid panels and the wall panels. These pieces fall along a 30 ft by 54 ft grid composed of 6ft painted squares and circles to represent CDC's guidelines for proper social distancing. Depending on classroom size the structure has the flexibility to shrink or grow by simply increasing or decreasing the grid.

The entire structure has the potential to be prefabricated off-site and assembled on site. Students could potentially assist in the assembly as part of a learning experience in itself. They could also enjoy drawing or painting their own 6ft student zone.

Materials Required

1. CLEAR OR WHITE PVC ROOF PANELS
2. 2X4 TREATED LUMBER
3. NAILS AND SCREWS
4. CHALK OR SPRAY PAINT

Design Assembly Difficulty

<table>
<thead>
<tr>
<th>Tools</th>
<th>Hand Tools</th>
<th>Power Tools</th>
<th>Specialized Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Tools</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AXONOMETRIC

CLEAR PVC PANELS USED TO HELP DIFFUSE LIGHT, REDUCE GLARE FROM DIRECT SUNLIGHT, AND PROTECT STUDENTS FROM RAIN.

TRIANGULAR OPENINGS DESIGNED FOR CIRCULATION AND FOR TEACHERS TO HELP STUDENTS WHILE MAINTAINING SOCIAL DISTANCING

HAND SANITIZER/MASK STATIONS AT EACH CORNER

ELEVATIONS

CLEAR OR WHITE PVC ROOF PANELS
2X4 TREATED LUMBER
NAILS AND SCREWS
CHALK OR SPRAY PAINT

1ST FLOOR +0' - 0"

ROOF +9' - 0"

ROOF GRID PANELS
WALL PANELS
COLUMN CONNECTION
STUDENT ZONE

45X
28X
28 - 30X
6' 6' 6' 6'
THE BOOK STOP

KEMET FLOYD, BADR ZABARAH

IG: @KMTANDASSOCIATESLLC, @BAZ.ARCHITECTURE

The inspired design of The Book Stop creatively approaches a global issue of limited resources for public access to great literature. Creating a space that embraces the experience of diving into a fresh new page of a book was articulated through the subtle shift in paneling. This architectural quality integrates the flipping pages of a book into its form. With an adaptable execution, the Book Stop becomes recognizable and distinct in its geometry. Construction of the design is very modular with Lego inspired connecting members. An accessible bike rack enables cyclist to utilize the space as a rest stop between routes. The angled roof provides exterior shading and opportunities for solar powered charging stations. The culturally sensitive form and sustainable construction allows the design to fit in many different settings. This will ultimately refresh the importance of the sharing of knowledge through literature in a more playful and hands-on way.
**THE BOOK STOP**

**KEMET FLOYD, BAD’R ZABARAH**

**DESIGN DETAILS**

- **Easy Detachable Opening Makes Reading Space Storage Easily Accessible**
- **Sliding Doors for Skylight Panels**
- **Metal Bike Stop Easy Socket Connection**
- **Book Shelf Connection**
- **Seat Used as Structural Component - Charging Compartment on Underside**

---

**Design Assembly Difficulty**

- No Tools
- Hand Tools
- Power Tools
- Specialized Skills

---

**FULL READING CABIN**

- 2”x6”x10” Plywood
- 3”x12” Metal Plate
- Solar Power Bank
- Blue Mod Storage Chair
- Large Dry Wall Screw Set
- 4”x10” Diameter Metal Bar
- Metal Bike Halt Rack
- 2” Plexi Glass
- Wood Cement for Curing Panels
- Metal Sliding Door Rack
- Metal Sliding Door and Handle

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**Rain Diagram**

**Sun Diagram**
Welcome to Room(s) for Error, an adaptation of the classroom beyond a building. The project becomes a tool for learning, as an easy to assemble, lightweight, durable structure that fosters all modalities of learning. Room(s) for Error recognizes (and encourages) that in life, there is error, and that’s ok!

A centralized learning space acts as the home base for learning, accommodating plenty of room in accordance to public health guidelines. Several additional follies can connect and detach from the home base for small group learning. Folly potentials include science laboratory, greenhouse, reading room, and art room, where the surfaces become the canvas for exhibiting student work! The materials to assembly are simple: stainless steel pipes, and a custom 3D printed, twisting connector. These connectors are designed so the Room(s) for Error can be assembled with your two hands and friends.

Room(s) for Error welcomes students to engage in learning well into the future.
Room(s) for Error
Office of Aesthetic Exuberance

DESIGN DETAILS

Design Assembly Difficulty

Materials Required

Stainless Steel Tube
1” Diameter, 0.028” Wall Thickness, Mill finish, 180G (#4), Cut to Length, De-burred

Custom Connectors (3d Print)
PLA

Exterior Grade Nylon Fabric
Cut to Size
DESIGN SOLUTION DESCRIPTION

Building on the module of a milk crate, our proposal creates a field for outdoor learning at various scales. The Crate-Module can be carried, climbed, or planted! Starting with the ground plane, a six-foot physical distancing grid creates a field to deploy and define the three major elements - the Commons, the Hub, and the Pod.

These elements can be used as separate learning environments for smaller scaled spaces, such as a parking space or joined together as a whole within a school-yard. The Commons’ painted pixelated path connects the Hub and Pod areas and allows students to plug in their modules to collaborate and learn safely as a school community. The Hub, a semi-enclosed space made up of a larger Container-Module is used for structured learning; the Pod is a small-scale space for unstructured playful learning activities like gardening, painting, or playing.

As children return to places of outdoor learning, we asked our focus-group of small thinkers, ‘What will you bring with you to play or learn outside?’ A pair of binoculars, a basketball, a yo-yo, a jump-rope, a book, a bottle of sunscreen. The Crate-Module is portable and can be used to organize personal storage and manipulatives in a sanitary way.
The Pod is a small-scale space for unstructured, playful learning activities like gardening, painting, climbing, or swinging. These spaces can be manipulated to serve any activity or lesson.

- Open air activities
- Storage for activity items
- Space-marking Trellis
- Pixels to organize groups
- Plug & Play

The structured learning space within the Container-Module can be manipulated to allow ventilation or expand past standard dimensions with the addition of a simple trellis.

- Whiteboard / Pin-up board
- WiFi Hotspot / Solar Panel Power
- Clipboards for Students
- Crate-Seating / Storage / Cubbies
- Weather Protection
- Pixels to mark seat locations

**MATERIALS REQUIRED**
- Shipping Containers (3)
- Solar Panels (2)
- Wifi Hotspot (1)
- Sidewalk Paint / Durable Paint
- Plywood Sheets
- Standard Lumber
- Milk Crates
- Soil / Plants
- Fabric / Upholstery
- Fasteners

**DESIGN DETAILS**

**Design Assembly Difficulty**

- No Tools
- Hand Tools
- Power Tools
- Specialized Skills
The Eco-Igloo™ offers schools an outdoor modular design, adaptable for any location. Self-powered, rugged and relocatable, choose from four modules to theme your fresh-air classroom and guide safe, playful learning.

**WEATHER VANING:** Forecast the Future! Learn about and monitor weather patterns, air quality, UV/heat index and atmospheric pressure. Study how weather impacts our health, our food supply and what you need to wear to school.

**GROWING UP:** Plants, Pollinators and Poo! Discover what plants need to help them grow and flourish, explore the World Wide Food Web and dive deep into soil life.

**HOME IS YOUR HABITAT:** What do animals need to survive? Make birdhouses, batboxes, birdfeeders and other micro-habitats for the wildlife in your neighborhood. Curate and observe mini nature environments.

**THE POWER HOUSE:** How do we power our future? Learn about solar, wind and hydro-electric power, energy storage and transformation, and sustainability of harnessing natural systems for power.

**ECO-IGLOO™**

SALT + INTERPRET GREEN

www.saltdesignstudio.com
www.interpretgreen.com

@salt_design_studio

www.facebook.com/SaltDesignStudio/

Solar-Powered Weather & Air Quality Monitoring Station

WEATHER VANING enables students to measure and record rainfall, wind speed/direction, investigate urban heat island effects and generate a precise forecast for future activities. Pole can be customized with student artwork.

**SYSTEM ADD-ONS**

OBSERVATION NEST CAM
**Design Assembly Difficulty**

**REQUIRES HAND TOOLS, POWER TOOLS RECOMMENDED**

Assembling your Eco-Igloo™ can be completed with commonly available hand tools and accessories, though an electric or cordless drill will speed the process up.

**Materials Required:**
- GrowSpan Round High Tunnel
- Galvanized Stock Tubs for multiple uses
- Pre-Mixed Concrete
- Wood 4x4 Poles
- Plywood
- Stainless Steel Screws
- Outdoor Paint
- System Add-Ons include:
  - Solar powered, wireless WI-FI Hub to support 75 simultaneous users
  - Solar power Generator with 30-Hr Rechargeable Battery
  - Wind-powered Catenary Lights
  - Rainwater harvester with Multi-Use Tub
  - Wind turbine mounted in Multi-Use Tub
  - Solar-Powered Weather & Air Quality Monitoring Station mounted in Multi-Use Tub

**Pre-Fab Round High Tunnel**
- Size: 12’ h x 20’ w x 48’ l = 960 SF serves class of 30 students
- Snap together pipe armature, can be enlivened with paint
- Roll up sides for ventilation, front & rear door options
- Withstands 80 mph winds
- Multiple school year lifespan

**HOME IS YOUR HABITAT: DIY K-3**

**FRAME**

**MULTI-USE TUBS**

- Herb
- Pollinator
- Berry
- Wetland
Mod-PODS
(Modular Protective Open Desk Solutions)

Ballinger

www.ballinger.com

@Ballingerae  @ballinger_ae

Design Solution Description

The Mod-PODS (Modular Protective Open Desk Solutions) classroom system is a flexible, inexpensive solution for the physical infrastructure challenges currently facing education systems. The system utilized freestanding structures designed for students and educators that can be arranged in various configurations, providing flexibility to accommodate site constraints and meet diverse classroom, student, and educator needs. The modular approach allows for a scalable investment and right sizing of classrooms for their specific needs.

Simple construction methods and readily available materials allow for easy procurement and assembly of repeatable modules. A wood frame provides support for the fixed roof and roll-up sides. These sides create an opportunity for physical separation, allow closer seating arrangements and offer weather protection. Modules can be customized with paint to give students control over their learning spaces and create a vibrant canvas for self-expression in the classroom.
Mod-PODS can be painted to transform the outdoor classroom into a joyful, inspirational space, as shown at the far left.

They can be arranged to accommodate large classes, small learning groups, and individual learning. Sketches on page 1 showcase two different classroom layouts for 30 students and a teacher.

Student modules include an integrated desk and horizontal members that can be used for hanging storage of coats and bags.

Teacher modules are designed to improve sight lines and provide space for mounting tack boards and writing surfaces.

**Materials Required**

Makes 30 Student Modules + 1 Teacher Module

- 217 ea 2”x4”x16’ Pine Lumber
- 31 ea 11/32”x4”x8’ Plywood
- 31 ea 30”x10’ Corrugated Sheet
- 2500 sqft Clear Vinyl Sheet
- 930 if Velcro
- 3000 ea 2-1/2” Screws
Design Solution Description

To accommodate the constraints of different sizes and shapes of school yards, our design features a menu of items allowing for the classroom to be reconfigured to fit each school’s needs. Each classroom can have an assortment of biome specific planters, desks, animals, rain barrels, and painted features that can be selected by classroom and arranged to fit inside the schoolyard.

Our design approach is based on the biomes of the world, designating each classroom as one biome. The classroom features and decorations would explore the animals, plants, and climate of the biome to act as an exciting and immersive learning experience.

The desks would create six feet of separation between students while integrating nature and green space to the classroom. Solar panel fabric would line the tent’s roof to keep the classroom powered and shaded. Asphalt murals would act as an activity area while promoting social distancing. Rain barrels painted to reflect specific biomes can be incorporated as a means of watering planters.
**Design Assembly Difficulty**

No Tools  | Hand Tools  | Power Tools  | Specialized Skills
---|---|---|---

**Design Details**

- FILL PLANTER WITH PLANTING SOIL, GEOTEXTILE FABRIC, AND BIOME-RELATED PLANTS
- PLYWOOD FRAME COVER
  - 2" x 4" SUPPORT BEAMS
- PLAN VIEW
  - 2" x 4" SUPPORT BEAMS
  - 4" x 4" VERTICAL BEAM
  - 2" x 6" LUMBER
  - PLEXIGLASS SHIELD
  - PLYWOOD DESK WITH 2" x 4" BEAMS
  - PLYWOOD DESK SEAT COVER
  - SUPPORT BEAM OF STORAGE LID
  - BENCH MODULE
  - DESK
  - PLANTER A
  - PROFILE VIEW

**Materials (Per Unit)**

16 x 6'L  | 2" x 4" Exterior grade lumber
4 x 6'L   | 2" x 6" Exterior grade lumber
2 x 6'L   | 4" x 4" Exterior grade lumber
7        | Plywood (3' x 6')
12       | Hinges
41       | Bolts/Screws
9        | Joist Hanger
1        | Rain Barrel
3 cans   | Asphalt Paint

**Bio&Me**

**E&LP Associates**
Creative Commons: As students start a new academic year, many students will only be able to participate virtually; why this should be the norm during this pandemic, can we provide a solution with thinking and innovation? Everyone’s safety is imperative, and it is essential to have our kids safely return to the classroom. For this to happen, we need to bring the structure of indoor classrooms into a safe space without hindering the student’s creativity and engagement. Classrooms do not need to be the rigid spaces they are now; they can be spaces where fun and creativity are fostered. The approach of Creative Commons is to marry the traditional (indoor classrooms) with fun-tactile experiences were teachers and students can cooperate and learn. Outdoor learning requires that these pieces shall be flexible and rearrangeable. Total configuration allows for three to four teachers with a full of forty students in max configuration capacity.
Creative Commons - Modular Furniture for Safe and Creative Learning

TRANSforma Studio

DESIGN DETAILS
Total configuration allows for three to four teachers with a total of forty students. Construction cost is around $5,600.00, factoring the cost of manufacturing and material transportation.

Pavilion: All panels are removable to allow the class to be configurable per the teacher’s need and to optimize air circulation and security.

Axonometric: Demonstrates how the panels can be reconfigured and used as the outdoor furniture for the classroom and storage.

1. The pavilion can be fully closed for storage and security.
2. Removed Panels can be teacher working stations.
3. A configuration of the pavilion when class is in section.
4. The pavilion with trellis & marine canvas.

Design Assembly Difficulty

No Tools | Hand Tools | Power Tools | Specialized Skills
---|---|---|---

Pavilion Configuration Stages:

1. The pavilion can be fully closed for storage and security.
2. Removed Panels can be configured as the tables and teacher working stations.
3. A configuration of the pavilion when class is in section.
4. The pavilion with trellis & marine canvas.

Materials Required & Legend

1. Polycarbonate Corrugated Roofing Panel White Opaque 164 sq. ft.
2. 2x6 P. T. Lumber (98)
3. 2x4 P. T. Lumber (12)
4. 23/32 P. T. Pine Plywood 780 sq. ft.
5. Blackboard Paint (3gl)
6. Paint (Teal, Rose, Purple, Pastels Paint (6gl each)
7. Marine Canvas Tarps (4 tarps)
Design Solution Description

The Learning Leaf creates an engaging outdoor educational environment that draws from nature while maintaining CDC requirements.

The covering consists of a large tent, which can be sized according to need and provides shade for the ground grid in the abstracted shape of a leaf. The leaf shape and tent are joined together by a system of fabric strips designed to mimic the shade from trees. These strips help screen the learning area while adding color and vibrancy to the environment in all weather conditions, via lowering clear curtains, while also providing space to hang student work. The incorporation of pre-made readily available elements helps to keep the design easy to assemble and low cost.

Beyond these practical considerations, many nodes throughout the design, breakout and individual learning areas, painted blacktop games, and an educational garden offer a safe space for play and learning!
LEARNING LEAF
TEAM JKRP

DESIGN DETAILS

1. Tent Frame: Secure lighting, electric, & fabric to frame
2. Fabric Walls: 4" x 8" cut strips of water/UV resistant, non-fray fabric
3. Clear Plastic Curtain: Protection from rain & temperature
4. Container Garden: With seasonal plants or crafts
5. Sanitation Station: Painted social distancing markers at entrance
6. Weighted 1 1/2” rope aligned to edge of painted blacktop
7. Breakout play space painted into grid
8. Existing classroom furniture or colored turf mats
9. Miscellaneous storage
10. Breakout Seating: Painted wooden logs

Plan Diagram

Bird’s-Eye View

Curtain Wall Diagram

Curtain Wall Construction

Educational Garden

Seating

Design Assembly Difficulty

No Tools  Hand Tools  Power Tools  Specialized Skills

Installation Sequence
1. Paint blacktop layout
2. Install party tent
3. Align weighted ropes
4. Cut fabric strips
5. Wrap fabric strips
6. Paint/arrange pots & stumps
7. Arrange furniture or mats

Materials Required
1 Party Tent
35 yd Exercise Rope
500 sf PVC/Polyester Fabric
15 yd Turf
1,130 sf Exterior Paint
17 Wooden Logs
20 Flower Pots
20 Plants
Up!

**HOPS**
(Sean Pickering & Hayden Bernhardt)

**Instagram:**
@pickering_sean
@haydenbernhardt

**Design Solution Description**

Up! plays with the simple idea of a modular system that allows for flexibility through the arrangement of individual and group spaces. Children have the opportunity to learn while playing. This environment fosters multiple modes of engagement through transformable wall panels that act as a drawing board and a table. The vibrant colors of the balloon-like roof create a beacon for group gatherings and a sense of wonder as children look above. Easels act as an independent learning space while allowing for customization in layouts. Through this, multiple means of collaboration and learning are able to be achieved while maintaining appropriate distancing in an outdoor setting.
Title of Design Solution

**HOPS**
(Sean Pickering & Hayden Bernhardt)

DESIGN DETAILS

**Design Assembly Difficulty**

- No Tools
- Hand Tools
- Power Tools
- Specialized Skills

### Wall Panel

The adjustable wall panel is a wooden frame with a dry erase board on each side. It is mounted to the columns on either side and rolls in a metal track. Once raised, legs unfold underneath to create a table.

### Roof

The roof contains a series of colored, polycarbonate, domes that are mounted to the plywood sheet of the roof. This resembles a bundle of balloons overhead, creating a sense of wonderment and play.

### Materials Required

- Plywood Sheeting
- 2X4s, 2X8s
- Dry Erase Boards
- Misc. Bolts / Fasteners / Bearings
- Polycarbonate Domes
Design Solution Description

Inspired by the iconic whispering walls of Philadelphia’s Fairmount Park, the modular bench provide a sheltered outdoor classroom for 30. Maintaining 3-season comfort with shade and a windbreak, these simple nested seating circles allow teacher to connect to each student, and conduct their classes close enough for a normal speaking voice.

Made from the simplest of forms and assembled with hand tools, the benches provide economical shade and shelter.

Material count:
- 10 benches: (5) 1” 4x8 sheets of plywood
- 10 bench backs: (5) 4x8 sheets of 1/4” plywood
- 24 tall & 16 small ribs: (7 1/2) 1” 4x8 sheets of marine plywood
- Supports, struts, and bracing: (40) 8’ long 2x4s
- Awnings: 125’ of aircraft cabling and all-season fabric
**DESIGN DETAILS**

*The Chair Rib is the basis of construction. 1” marine plywood ribs are cut from 4x8 sheets and assembled in groups of four to create 8’0” long segments.*

**MATERIAL LIST**
- 12 sheets (4x8) of 1” plywood
- Screws (40) of 1”-8” to endure 3000 lbs. of force
- 2” 2x2 blocking
- 260” of 1/4”x3/8” wood nails
- 186” of 1/8” stainless airplane cable
- 80’ of all-season canvas awning

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**Design Assembly Difficulty**

- **No Tools**
- **Hand Tools**
- **Power Tools**
- **Specialized Skills**
SCHOOLHOUSE BLOCK

Open House with Design Art Building Co. and Neighborhood Square, LLC.

Website: open-house.org

Instagram: @open_house_org @designartbuildco

Design Solution Description

Open House's modular building system of Boxels can be fabricated, installed, and rearranged to create safe, durable, and inspiring learning spaces. Boxels are created using CNC Routers, which are a growing trend in efficient fabrication that reduce cost and waste. The variety of Boxels' forms can adapt to any school's curricular and spatial needs. Schoolhouse Block proposes an interpretive outdoor classroom with spaces for storage, writing, and performance. Requiring no power tools to assemble, Boxels' interchangeable shapes support creative designs and can address specific learning goals like urban gardening or storm water management. Open House's open source platform allows for collaboration and feedback within the design, parent, and teaching community.
Design Assembly Difficulty

Assembly: To make a Boxel, download free design files from the Repository at open-house.org. Cut the components from plywood using a CNC Router, flatpack to the site, then assemble with a mallet. Multiple Boxels can be connected with standard hardware. Contact info@open-house.org for help. Boxels can be weatherproofed with standard outdoor wood sealant, and customized with paints, stains, or other finishes.

Materials Required
- Plywood (baltic birch/OSB)
- Hardware (bolts, wing nuts, washers, lock washers)

Additional Tools:
- CNC Router (rent time from a makerspace)
- Rubber mallet
- Work gloves
- Sandpaper

Design Details

Assembly:
- Download free design files from the Repository at open-house.org.
- Cut the components from plywood using a CNC Router, flatpack to the site.
- Assemble with a mallet.
- Multiple Boxels can be connected with standard hardware.

Contact:
info@open-house.org for help.

Weatherproofing:
Boxels can be weatherproofed with standard outdoor wood sealant.

Customization:
Boxels can be customized with paints, stains, or other finishes.

Materials Required:
- Plywood (baltic birch/OSB)
- Hardware (bolts, wing nuts, washers, lock washers)

Tools:
- CNC Router (rent time from a makerspace)
- Rubber mallet
- Work gloves
- Sandpaper

SCHOOLHOUSE BLOCK
Open House with Design Art Building Co. and Neighborhood Square, LLC.
**The Last Straw:**

Emergency Education Strategies

BrownSprague LLC
Barbara Sprague, AIA
Peter E. Brown, EI/EI
www.brownsprague.com

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**Straw** is an agricultural byproduct consisting of the dry stalks of cereal plants after the grain and chaff have been removed. It makes up about half of the yield of cereal crops such as barley, oats, rice, rye and wheat. It has a number of different uses, including fuel, livestock bedding and fodder, thatching and basket making.

Straw is usually gathered and stored in a straw bale, which is a bale, or bundle, of straw tightly bound with twine, wire, or string. Straw bales may be square, rectangular, or round, and can be very large, depending on the type of bale used.

Modern farming equipment allows harvesters to wrap large high density straw bales with a protective membrane called a silage wrap. The wrapping allows the baled material to remain outdoors for 12-18 months without spoilage. Thus, making them useful building blocks for temporary installations. Such straw bales are readily available within most areas of the United States.

This design study examines the use of wrapped straw bales as a primary material for defining spaces and making shelter within the school yard. In addition to the straw bale, paint membranes and off the shelf agricultural shelters are used in combination to help create an enriching outdoor educational experience and help to maintain safe practices such as social distancing, as required due to the COVID 19 pandemic of 2020.

---

Rectangular bales
32 x 32 x 68
weigh over 750 lbs each.

Calibrate floor surfaces to promote safe social distances:
Playground surface painted with a 6 ft. hex pattern.

Large fabric canopies provide opportunities for distinctive patterns.

Consider upgrading exterior floor surfaces for grades with floor centered educational experiences.
**Design Assembly Difficulty**

- **No Tools**
- **Hand Tools**
- **Power Tools**
- **Specialized Skills**

**Bale Yokes:** Used to transfer the weight and stresses from the canopy rooms to the ground. Designed to be assembled with standard off the shelf building materials such as engineered lumber, heavy duty ratchet strap and galvanized pipe.

- Pre-manufactured 1.66” dia. schedule 40 galvanized pipe as canopy frame.
- Rectangular bales 32 x 32 x 68 weigh over 750 lbs each.
- Bales cost between $65-$75 each. Best to maximize delivery efficiency to lower shipping and installation cost.

**Adjustable beam connectors necessary to level the canopy plate.**

**Skid loader w/ bale squeeze**

**Large, high density straw bales**

**Pros:**
- Readily available in various shapes and sizes.
- Resilient, can withstand long periods of use while maintaining their integrity.
- Silage membrane is cleanable with soap, water and most household disinfectants.
- Very stable, can be dry stacked.
- Very high acoustical attenuation properties, they absorb sound.
- When baled, straw can provide fire resistance comparable to traditional construction materials.
- Can provide ballistic protection against small caliber fire.
- Silage membrane is typically available in two colors, white and charcoal.
- If undamaged, straw bales can re-enter the local agricultural economy, be resold, re-baled and or re-purposed. Within the same year, undamaged straw bales retain their value.

**Cons:**
- Required equipment and operator, such as a bale squeeze and skid loader to be easily unloaded and installed.
- Relocation is difficult without required equipment and operator.
- They are vulnerable to sharp objects and vandalism.
- Kids love to play on them.
Design Solution Description

These unusual days during COVID-19 are challenging for everyone. Providing students an outdoor classroom not only gives a purpose to under utilized playground space, it can allow students to continue being educated in a student led, project based learning environment while still maintaining safe social distancing behaviors.

This scheme provides a basic trellis and canopy which are meant to have biophilic design qualities that mimic leafy shade patterns from trees. The canopy is also meant to aid in providing shade, holding in warmth in cooler months, and keeping out (most of) the rain. The scheme is meant to provide most of the conveniences that would be found indoors. The solid walls provide a place to connect the existing school building. The provided counter surface has a sink with a hose connection. The goal is that this scheme could really offer a plug and play outdoor solution for 21st century learning.
Plug and Play Outdoor Learning

CB Studio

DESIGN DETAILS

Possible furniture layout. Dashed circles represent safe social distancing

Canopy Netting

Exterior Floor System

Board & Batten Wall Covering

Corner Planter Boxes

Materials Required

Netting or Canvas
Dimensional Lumber
Lumber Connections
Wood for Siding/ Planter Box
Interlocking Floor

Design Assembly Difficulty

No Tools  Hand Tools  Power Tools  Specialized Skills

No Tools

Power Tools

Specialized Skills

Canopy Plan

Typ Lumber Detailing

Post Base Detail

Possible furniture layout. Dashed circles represent safe social distancing

Power connection

Water connection

Floor Plan
Design Solution Description

The overall design concept was derived from a need for adaptability, modularity, and provisional longevity. The solution was designed to have the ability to be easily stored for use as circumstances demanded and moved as future spatial needs evolved creating personalized space spurring imagination and creativity.

The base design utilizes a modular 10'-0" shipping container, with the ability to scale larger where space allows, and sliding envelope enclosing educator space and expanding to create a semi-enclosed lecture area.

Furniture elements incorporate natural accents of repurposed wood and expandable planters help to define space creating an instinctual boundary from the public realm, while also improving viewing angles and maintaining enforceable social distancing as students are now spaced further away.

Canopies are designed to swing out from the rigid expandable frame, derived from the idea of a folding paper fan, and provide a canopy space shading exposed conditions for the students.
ArchSy Shadows

LEARNWORKS

Design Assembly Difficulty

No Tools  Hand Tools  Power Tools  Specialized Skills

The nature of adaptability in design for this outdoor classroom is sown into all elements that make up the LearnWork habitat as demonstrated with the folding fan nature of canopy, or pull out seating or the multifunctional container itself.

Each module is designed to individually serve multiple functions as well as collectively create and characterize unique classroom compositions per the need of the day.

Materials Required

Shipping Containers
Steel
Wood
Plywood
Fabric
Design Solution Description

PARACHUTE uses the iconic rainbow fabric (used in children's games) to create a series of covered outdoor classrooms for the Philadelphia public schoolyard during the pandemic. The familiar and playful element is repurposed to enclose a circular, physically distanced gathering space for a single cohort of (30 or less) students, with their teacher at the center.

To supplement the colorful learning space, the project imagines several other repurposed elements – wooden pallets, milk crates, and water jugs – to meet all the needs of an outdoor classroom. These elements include handwashing stations, rolling stools that double as storage cubbies, and lightweight desks.
PARACHUTE

Team FUN!

DESIGN DETAILS

1 SIDEWALK SIGNS
2 PLANTED HANDWASHING STATION
3 PARACHUTE TENT
4 MILK CRATE STOOL
5 WOOD PALLET DESK

Materials Required
1 5-gallon water container
2 water-filtering plant
3 laser-cut acrylic tray
4 zip ties
5 canvas
6 paint or custom printing
7 24’ kids’ parachute
8 tent poles
9 rope
10 carabiner clip
11 stakes for ground
12 milk crate
13 roll of fabric
14 seat cushion
15 piece of reinforcing wood
16 hemming tape + iron
17 superglue
18 wheels and hardware
19 wood pallet
20 cutting/power tools
21 nails/screws
22 extra wood for infill
23 cork board/roll of cork
Outdoor Learning Spaces Design Ideas

ROUND 2
Deadline Date: September 26, 2020

Design ideas are presented in the order in which they were submitted
Everyone needs to feel that they are a part of the group. Students need to be able to move efficiently through their school day. High School students have subject specific school supplies that need to be carried from class to class. Elementary students need seating that is scaled to their size and allows for wiggle room. Students and teachers can benefit from increased contact with nature by incorporating adaptable gardens to help space seating arrangements and define classroom areas outdoors. This design proposal offers options to address these varied needs. Seating options include 5-gallon buckets for MS/HS students that can hold a cushion, laptop, books, and be personalized for each student. Timbers, straw bales, and landscape wattle are natural materials that can be adapted for elementary through high school aged students.
Take a Seat

Cynthia Hron

Design Details

Wattle boundary creates seating and garden for youth

Design Assembly Difficulty

No Tools | Hand Tools | Power Tools | Specialized Skills

Timber desk & bench samples & layouts

Timbers & planters defining space

Straw bales & mobile planter

Materials

5-gallon bucket (contractors)
Wood (firewood supply, DCNR)
Plants, shrubs & trees (rentals)
Mobile planters (rentals)
Straw bales
Wattle, biodegradable
Originally conceived for PARKing Day, a global initiative about re-imagining urban spaces, our design focuses on how to use easily configurable modules to create new outdoor classrooms. Over the summer, we saw parking spaces in Center City transformed into outdoor dining venues, providing a place for people – mainly adults – to socialize in relative safety, we propose that similar accommodations can be made for the social and educational needs of our youth by creating open-air classrooms throughout the city. We began this project by surveying students of varying ages and teachers to find out what they miss most about going to school and what physical elements of the classroom are most important for learning. We have based our design on the general consensus that social interactions are the most crucial aspect of school that is missing from virtual learning, and that a “classroom” consists mainly of a place to gather, sit, work, and sometimes play.

**Outdoor Learning Lab**

WRTPARKingDay.com

**WHO WE TALKED TO:**

<table>
<thead>
<tr>
<th>TEACHERS</th>
<th>STUDENTS</th>
<th>YEARS OLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>21</td>
<td>9</td>
</tr>
</tbody>
</table>

**29 TEACHERS**
number of teachers surveyed

**21 STUDENTS**
number of students surveyed

**9 YEARS OLD**
average age of students surveyed

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Check out our website for more information on our design and process!
These modules can be constructed with power tools & simple fasteners. The A-frame structure borrows from the simplicity of a backyard swing. A sloped roof can be built out of 2x4 members & 3/4” sheets of plywood. The installation of solar panels can help power built-in outlets, which are functional & educational. Similarly, a simple gutter & downspout will terminate at the planters below to illustrate creative storm water solutions. Lastly, the removable swing reconfigures as an individual backpack to minimize germ transfer between students.

This module is fabricated by laminating CNC-routed 3/4” plywood panels and installed in site through a series of interlocking joints as well as a through-bolt system. Panels can arrive in flat boxes and be assembled with minimal tools. Students can plant and tend to the plants at the center of the module which serve as a learning tool, social distance buffer, and a calming green feature.

Materials
- 4”x 4” PRTD LUMBER
- 4'x 8' PLYWOOD
- 2”x 8” PRTD LUMBER
- 2”x 4” PRTD LUMBER
- PAINT/CHALK BOARD PAINT
- GREEN ROOF SEDUM TRAY
- CHAIN LINK
- SOLAR PANEL & OUTLETS
- PVC PIPE
- A-FRAME SWING BRACKETS

Design Assembly Difficulty

- No Tools
- Hand Tools
- Power Tools
- Specialized Skills

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Design Assembly Difficulty

- No Tools
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- Power Tools
- Specialized Skills

These modules can be constructed with power tools & simple fasteners. The A-frame structure borrows from the simplicity of a backyard swing. A sloped roof can be built out of 2x4 members & 3/4” sheets of plywood. The installation of solar panels can help power built-in outlets, which are functional & educational. Similarly, a simple gutter & downspout will terminate at the planters below to illustrate creative storm water solutions. Lastly, the removable swing reconfigures as an individual backpack to minimize germ transfer between students.

This module is fabricated by laminating CNC-routed 3/4” plywood panels and installed in site through a series of interlocking joints as well as a through-bolt system. Panels can arrive in flat boxes and be assembled with minimal tools. Students can plant and tend to the plants at the center of the module which serve as a learning tool, social distance buffer, and a calming green feature.

Materials
- 4”x 4” PRTD LUMBER
- 4'x 8' PLYWOOD
- 2”x 8” PRTD LUMBER
- 2”x 4” PRTD LUMBER
- PAINT/CHALK BOARD PAINT
- GREEN ROOF SEDUM TRAY
- CHAIN LINK
- SOLAR PANEL & OUTLETS
- PVC PIPE
- A-FRAME SWING BRACKETS

Design Assembly Difficulty

- No Tools
- Hand Tools
- Power Tools
- Specialized Skills

These modules can be constructed with power tools & simple fasteners. The A-frame structure borrows from the simplicity of a backyard swing. A sloped roof can be built out of 2x4 members & 3/4” sheets of plywood. The installation of solar panels can help power built-in outlets, which are functional & educational. Similarly, a simple gutter & downspout will terminate at the planters below to illustrate creative storm water solutions. Lastly, the removable swing reconfigures as an individual backpack to minimize germ transfer between students.

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- CHAIN LINK
- SOLAR PANEL & OUTLETS
- PVC PIPE
- A-FRAME SWING BRACKETS
Design Solution Description:

Our design creates tactile non-traditional learning spaces that encourages students to release energy, socialized, dream, explore, and most importantly learn from their surroundings. We stitch these activities together with a thickened frame. This frame, made from CNC milled plywood, defines spaces for large group learning, reading, & drawing as well as highly active learning such as storytelling, dancing, & gardening. The vertical frame is light & airy while the horizontal planes help to provide enclosure & shade. Our design allows for a variety of configurations and can be adapted for different school sites. The ground plane is activated with paint, colorful rubber flooring, and vegetation to define space and encourage student interaction, involvement, & collaboration. Blob seating encourages flexible seating to increase student focus. Each school can tailor the design to reflect the colors of their neighborhood and create a space for the kids & community to enjoy.
Urban Swoosh
Solomon Cordwell Buenz

No tools: Hands, sweat & strength
Hand tools: Rubber mallets, nail gun
Specialized skills: CNC Router access

Materials Required:
Plywood (wall)
Paint (wall & ground)
Rubber Flooring
Grass & plants
Recycled Plastic (for canopy)
Nylon Rope (for canopy)
Fabric (for seat)
Fasteners as needed

STEP 1: ROUTE PIECES OUT OF PLYWOOD WITH CNC MACHINE
STEP 2: MANUALLY FIT HORIZONTAL & VERTICAL PIECES TOGETHER
STEP 3: ADD CANOPY DISCS AND STRETCH RECYCLED FABRIC ACROSS FRAME TO PROVIDE SHELTER AGAINST THE ELEMENTS
STEP 4: CUT, SEW, & FILL FABRIC BLOBS WITH RECYCLED MATERIAL, OR CORN KERNELS

Wall Growth Flexibility:
The wall can adjust in size and length depending on the area of the school yard, giving each school a variety of options.

Community Assembly:
The community, students, and teachers can assemble and paint the frame together. This activity gives students the ability to learn by doing, using the wall as a teaching tool.

Vibrant Ground Activity:
The ground plane is animated with materials to promote movement across the space. Blob seats provide playful alternate seating. Guided graphics and murals on the ground can be adapted to reflect school and neighborhood identity.

Materials Required:
Plywood (wall)
Paint (wall & ground)
Rubber Flooring
Grass & plants
Recycled Plastic (for canopy)
Nylon Rope (for canopy)
Fabric (for seat)
Seat filling (for seat)
(fasteners as needed)
Building Blocks

DIGSAU

www.digsau.com

@digsau_architecture

Design Solution Description

The Building Blocks Outdoor Classroom makes use of readily sourced, cost effective building materials to create fun, functional outdoor teaching environments that are easy to build, assemble, and use. Each classroom comprises a Home Base - a central platform for teachers and students to use as their launch point, for daily storage, and for small groups to gather, learn, and play; and Movables - furniture elements for each student that can be reconfigured for different tasks and for students of different ages and sizes. On each Home Base, colorful vertical panels serve as beacons for wayfinding and classroom identification, and also as points of attachment for individualized teaching materials, play elements, signage, and shading components. While meant to be temporary in nature, these outdoor classrooms can easily be upgraded to be more permanent, and are themselves reconfigurable and adaptable depending on each school’s needs and constraints.
**Design Assembly Difficulty**

No Tools  Hand Tools  Power Tools  Specialized Skills

**Tools Required**
- Pencil & Tape Measure
- Power Drill / Screwdriver
- Circular Saw
- Miter Saw/Chop Saw
- Jig Saw
- Paint & Brushes

**Materials Required**
per 1 classroom (1 homebase + 34 movables)

<table>
<thead>
<tr>
<th>Item</th>
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<tr>
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<td>32</td>
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<tr>
<td>B</td>
<td>48</td>
<td>1” x 4” (8’ long)</td>
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<tr>
<td>C</td>
<td>2</td>
<td>4” x 4” (8’ long)</td>
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<tr>
<td>D</td>
<td>21</td>
<td>3/4” plywood</td>
</tr>
<tr>
<td>E</td>
<td>4</td>
<td>signage</td>
</tr>
<tr>
<td>F</td>
<td>4</td>
<td>3/4” plywood storage cubby door w/ hinges &amp; latch</td>
</tr>
<tr>
<td>G</td>
<td>14</td>
<td>2” x 4” (8’ long)</td>
</tr>
<tr>
<td>H</td>
<td>3</td>
<td>screws</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wood glue</td>
</tr>
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</table>
**The Carousel**

Kenneth Miraski, Miraski Architecture

miraski.nyc

@kmiraski

**Design Solution Description**

A goal of the outdoor learning environment can be to maintain a student’s hope and positive outlook during this global crisis. It’s not simply about recreating a classroom outdoors or returning to normalcy. A goal can be to bring joy and creative energy into a student’s career alongside their school and classmates.

This concept is organizational and meant to give a school community the framework for a collective creative project. While not sacrificing health and safety, the school can embark on such a project as represented here by The Carousel. The Carousel can be literal or figurative. The Carousel acts as a focal point for the students and faculty. It can be an amphitheater, a mural, a stage, or project that suits the school's creative desires.

The classrooms can be set up in the interim with existing furniture and minimal tools while the school works together to create something positive from this crisis.
DESIGN DETAILS

The Carousel
Kenneth Miraski, Miraski Architecture

Design Assembly Difficulty

No Tools  Hand Tools  Power Tools  Specialized Skills

Color spots/markers/pads could indicate behavior expectations or what activity the student may expect to participate in.

Should colors indicate mandatory rules? For example, when a student must wear a mask? Or when a student must remain socially distant? Or when a student must sanitize/wash hands?

Concept Note
The focal point or creative project should be something the school community finds beneficial, encouraging, and joyful for them. Examples from other communities include murals, gardens, and barn raisings.

Practical Note
If a ready-made object is used for the focal point (such as an actual Carousel or stage, platform, etc.), modification and adaptation is encouraged to allow for storage and security of outdoor classroom items at the end of each school day and on weekends.

Materials Required
Classroom furniture as needed.
Individual Storage for Students (Cubbies, Boxes, Lockers)
Tape or Paint for Markings
Classroom Dividers:
  - Fabric (Loose/Draped)
  - Fabric (Wrapped Panels)
  - Lumber + Hinge Brackets

Classroom Density Levels

Student preps for day. Place items in storage. Wash hands. Greet teacher and say good bye to parent.

Classroom-wide instruction. Masks and distancing mandatory.

Center space may be used for light exercise and play if future conditions improve and guidelines allow.

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Should colors indicate mandatory rules? For example, when a student must wear a mask? Or when a student must remain socially distant? Or when a student must sanitize/wash hands?
**SCHOOLHOUSE BLOCK 2.0**

Open House with Design Art Build Co. and Neighborhood Square, LLC.

**Website:**
open-house.org

**Instagram:**
@open_house_org
@designartbuildco

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**Design Solution Description**

Open House’s modular building system of Boxels can be fabricated, installed, and rearranged to create safe, durable, and inspiring learning spaces. An iteration on Open House’s first submission for DesignAID, Schoolhouse Block 2.0 proposes a collection of L-shaped walls that define flexible outdoor classrooms. This proposal takes advantage of a prefabricated assembly method comprised of Boxels, which, as individual units, can be used as seating and provide storage for users. Boxels can be grouped to quickly create walls, mass, and learning surfaces. These Boxel groups can be further extended with tarps to define rooms and provide roof cover. The roof surfaces are intended to channel rain water to drums and planters, which will provide further stability and weight as well as curricular opportunities.
DESIGN DETAILS

Assembly: To make a Boxel, download free design files from the Repository at open-house.org. Cut the components from plywood using a CNC Router, flatpack to the site, then assemble with a mallet. Multiple Boxels can be connected with standard hardware. Contact info@open-house.org for help. Boxels can be weatherproofed with standard outdoor wood sealant, and customized with paints, stains, or other finishes.

Materials Required
- Plywood (Baltic birch/OSB)
- Hardware (bolts, wing nuts, washers, lock washers)

Additional Tools:
- CNC Router (rent time)
- Rubber mallet
- Work gloves
- Sandpaper
Connected Learning supplements our previous Eco-Igloo™ submission for Round 1. Research affirms that the health of young students benefits greatly from learning, playing and relaxing outdoors especially when connected to nature. Our Design Solution connects children with nature, with each other and with educational networks that support curiosity, discovery, instruction and fun.

Learning Landscapes integrate nature habitat modules for students to connect with the nature in their neighborhood, including birds, pollinators, animals and a variety of plants. The modules are durable, relocatable and highly engaging for children.

Sensing Nature Stations integrate solar-powered weather stations, air quality monitoring stations, soil sensors, heat index sensors plus nestcams and feedercams so students connect, measure, and study their environment.

Educational Outdoor Networks provide outdoor, high-bandwidth Wi-Fi connectivity for students and teachers. The basic system connects 75 simultaneous users. The Outdoor Communications Network is configurable, expandable and can be solar-powered.
Connecting Outdoors with Birds and Bio-Habitats

Students experience curiosity and wonder when connecting with nature. Studying and viewing the life-cycles of birds is engaging and perfect for outdoor classrooms. Assembling & installing birdhouses is a project-based learning activity for all grades K to 5. An excellent source for birdhouse kits and installation instructions is: www.thebirdhousedepot.com – Get started on outdoor nature, educational content by visiting www.birds.cornell.edu/k12 – NestCams and Feedercams support year-round students’ connection with the birds in their schoolyard neighborhood.

Connecting Outdoors with Weather & Air Quality Monitoring

Weather and air are often mysterious environmental properties for children because the dynamic changes in temperature, wind, moisture, and air quality have features of invisibility. Environmental sensors make the invisible visible. Outdoor classrooms are ideal venues for K-5 students to learn about their outdoor environment. Basic stations are economical, solar-powered and connect directly to the school’s Internet. The stations monitor heat index and air pollution conditions in the schoolyard and provide public automated alerts if outdoor conditions become unhealthy.

Educational Outdoor Network (EON)

We anticipate that students and teachers will be actively engaged in both online remote and online classroom learning for the foreseeable future. Their Internet connected instruction will be in their homes, plus indoor and outdoor classrooms.

An EON WiFi system is essential if outdoor classrooms are to succeed. Currently, almost no Philadelphia Public School has active outdoor Internet accessibility. The EON offers a modular method to scale the Internet network bandwidth to each school’s specific needs. The system known as an AP (Access Point) Mesh Network provides the economy and versatility required. This basic outdoor AP WiFi Network can support 75 students and teachers accessing the Internet at the same time. Each Node can be solar-powered. More Nodes can be added as needed.

Consider the following two education programs for outdoor classrooms:

https://www.nwf.org/Eco-Schools-USA.aspx

https://www.globe.gov/

Additional materials lists and technical references are available from: Interpret Green habiteers@interpretgreen.com
Design Solution Description

In response to the many requests from Tiny WPA’s neighbors in West Philadelphia for things like benches, picnic tables, shade canopies, planters, and storage to improve public spaces and vacant lots that are important to them, we have been developing a collection of public space amenities to meet these needs. Happily this toolkit is perfect for creating (designing and building) outdoor learning spaces WITH students and teachers.

Designed and thoroughly tested with our teenage Building Heroes and residents, each amenity is durable and easy to build with basic power tools from materials that are readily available as well as affordable. Key amenities—like the planter which can transform into a bench, lockable storage bin, shade wall, play structure, and chalkboard to name a few options—are endlessly adaptable to a community’s learning needs. Given the light weight of the amenities, learning communities can easily design and re-configure their learning spaces as needed.

Each learning area is comprised of at least one planter-bench-shade-wall, defined areas for hands-on (often play based) activities to enhance their existing learning, and has at least one additional type of seating to encourage students to spread out. The planter-bench-shade-wall doubles as a dry erase/pin up board and has lockable storage in the seat. These ‘exploration areas’ can be programmed and arranged based off of a community’s learning needs, interests, and available materials or space.

1. FARM- Hands-on science and nature areas with gardens, compost, insects.
2. STAGE- Reading and storytelling area with local history and culture ‘game field’.
3. ADVENTURE PATHS- Routes for guided games and activities or an exuberant path for burning off some steam.
4. NEST- Writing, story creation and language area with hands-on writing games.
5. CONSTRUCTION SITE- Hands-on math and loose parts building STEM area.

BUILD YOUR OWN CLASSROOM
Tiny WPA
www.tinywpa.org
@tinywpa
BUILD YOUR OWN CLASSROOM
Tiny WPA

DESIGN DETAILS

Materials Required
2x2, 2X3 Doug Fir or Pine
2x4, 2X6 Doug Fir or Pine
2x2, 2X3, 2X6 PT Pine
3/4 PT Pine
Various length exterior screws
Paint and painting supplies
6 mil plastic sheeting
8 mm coroplast
Concrete deck pyramids
Re-claimed coroplast signs

Design Assembly Difficulty

No Tools  Power Tools  Specialized Skills

Hand Tools

Power Tools

Specialized Skills

BUILD YOUR OWN CLASSROOM
Tiny WPA

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Great art doing good!

Our School Facade Gallery concept is an art gallery and school building branding program. The students start by working with their art teacher, utilizing one of Fresh Artists’ innovative programs, to create artwork based off a teaching theme. Then working with the teacher and the students, Fresh Artists designed and fabricated custom building facade system, greeting the students, teachers and neighbors every time they passed the school.

The students gained a sense of ownership and pride over their place of learning, giving them a sense of empowerment every time they arrived to school.

Our Corporate Art Collection of 2300 pieces of K-12 children’s artwork is available for your outdoor classrooms for an image use fee.
School Facade Gallery

DESIGN DETAILS

Our School Facade Galleries use weatherproof materials and simple installation methods leading to their long-lasting success. The art is printed on adhesive vinyl and is protected with a clear UV laminate. The prints are then mounted to 3mm DiBond.

Pressure treated lumber cleats are added to the walls and the mounted prints are then hung on those using a combination of a polyurethane based adhesive and stainless steel safety screws. A large information panel accompanies the artwork that includes the students, name, grade and original artwork information as well as the story behind the project.

24 Panels installed.

Materials Required
Fresh Artists Chip Art Lesson Plan & Materials (free to low-income schools)
1”x 3” Pressure Treated Lumber
DiBond ACM Sheets
3M Digital Print Vinyl
Suitable UV Overlaminate
Assorted Screws & Adhesive

Design Assembly Difficulty

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24 Panels installed.
Schoolyard Garden Gallery

Design Solution Description

Great art doing good!

Our Schoolyard Garden Gallery concept is an art gallery and gathering space for reading, quite play and lessons. Using the students’ own Chip Art Artwork, through our Chip Art Program, the space was transformed by exhibiting large-scale reproductions using our signature Gold Frame installation method. By utilizing the children’s own artwork to create an outdoor gathering space, the students feel empowered, engaged and energized for learning. The project starts with an art lesson taught by their art teacher utilizing our Fresh Artists’ innovative programs. The artwork is then digitized and used to design a welcoming exterior space, transforming a bleak uninspiring space into a place the students want to be. Giving the students a hand in the design of their environment engages them to be active participants in their education. The gold frames are donated high-resolution digital photographs of actual $30K-$75K gold leafed frames from a frame dealer on Madison Avenue. Nothing says “Masterpiece” like a giant gold frame!

Our Corporate Art Collection of 2300 pieces of K-12 children’s artwork is available for your outdoor classrooms for an image use fee.
Schoolyard Garden Gallery

DESIGN DETAILS

Our Schoolyard Outdoor Galleries use weatherproof materials and simple installation methods leading to their long-lasting success. The art is printed on adhesive vinyl and is protected with a clear UV laminate. The prints are then mounted to 3mm DiBond.

Pressure treated lumber cleats are added to the walls and the mounted prints are then hung on those using a combination of a polyurethane based adhesive and stainless steel safety screws. Each artwork includes a label integrated into the printed Gold Frame that includes the students’ name, grade and original artwork information.

To round out this project, the school added a number of picnic tables to give the students a place to sit and learn.

Materials Required

Fresh Artists Chip Art Lesson Plan & Materials (free to low-income schools)

1” x 3” Pressure Treated Lumber
DiBond ACM Sheets
3M Digital Print Vinyl
Suitable UV Overlaminate
Assorted Screws

Design Assembly Difficulty

No Tools  Hand Tools  Power Tools  Specialized Skills

Specialized Skills
The Design A.I.D.: Outdoor Learning Spaces Design Ideas Competition was organized and administered by the Community Design Collaborative (The Collaborative). The goal of this outdoor learning space initiative is to develop a Design Guide that schools can adapt for use at their specific sites with the support of their students, families, and neighbors.

All competition submissions were vetted by The Collaborative for eligibility and adherence with the design criteria in the competition brief. All design solutions adhering to the listed design criteria are published in the Design A.I.D.: Outdoor Learning Spaces Design Guide. Decisions of eligibility were at the discretion of The Panel and all decisions are final. The Panel and The Collaborative reserved their right to refuse any entry.

By submitting an entry to this competition, the designer/design team represents that all work submitted is the original work of the designer/design team. The Collaborative shall not be responsible for any misrepresentations, disputes, or other concerns associated with the authorship of the submissions. The Collaborative reserve the right to publish and/or reproduce images and text from any and all submissions, with credit to the creator(s). By submitting an entry to this competition, entrants transferred unlimited use for publication, exhibition and electronic posting of all entries to The Collaborative, and entrants acknowledged and accepted that all aspects of any submission may be used for publicity purposes. The Collaborative shall not be responsible for any technical or other conditions that prevent the receipt or evaluation of a competition submission, or any part thereof.

Entrants agreed to release, indemnify, defend, and hold harmless The Collaborative and their respective directors, officers, employees, and agents from and against all claims, liens, demands, causes of action and suits and all losses, damages and expenses, including without limitation reasonable attorneys’ fees, in any manner connected with entrants’ participation in the competition.

Upon submitting an entry to this competition, all entrants agreed to waive any and all claims against The Collaborative in connection with the competition. The Collaborative shall not be responsible for evaluating the soundness of any entry for construction or safety purposes, including without limitation with respect to any public health requirements.

The opinions expressed in this report are those of the author(s) and do not necessarily reflect the views of the William Penn Foundation.
HELPFUL RESOURCES

Public Health Recommendations
CDC guidance for schools
City of Philadelphia Reopening Guidance for Elementary Schools – (English) (Espanol)
City of Philadelphia’s Reopening with Care Guidance

Design Resources
Multilingual Downloadable COVID-19 Signage Decals & Posters, Entro
A collection of COVID-19 Graphics for Schools and Educators, Printer ARC Document Solutions
COVID-19 Related Graphics, Cloud Gehshan
Design For Distancing: Reopening Baltimore Together, City Of Baltimore, Baltimore Development Corporation and Neighborhood Design Center
HELPFUL RESOURCES

Media

Schools Beat Earlier Plagues With Outdoor Classes. We Should, Too. New York Times

Some Philly Schools want to use outdoor classrooms when IRL lessons resume. WHYY

Playful Learning

Playful Learning Landscapes Website
Playful Learning Landscapes Handout
Kaboom Play Everywhere gallery

Schoolyards

School District of Philadelphia Design Guidelines for Outdoor Learning
Green Schoolyards America, Covid-19 Outdoor Learning
Community Design Collaborative Transforming Schoolyards Resources and Guide
Reach out!

We would love to hear how and where you’re using this guide.

Share photos with us of your outdoor learning spaces – from your community, your build day, and in-use.

designaid@cdesignc.org

Tag the Community Design Collaborative!

facebook: @cdesignc
instagram: @cdesigncphl
twitter: @cdesignc_tweets