

# Redesigning Schoolyards for Community Resilience: Engaging Partners at all Levels

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“I like to play indoors better because that’s where all the electrical outlets are.”

— a fourth-grader in San Diego



# Risks and Trends in Children's Health

- 60% of obese children (ages 5-10) have **at least one cardiovascular risk factor** (Centers for Disease Control).
- There is an upward trend in **high blood pressure** in children (ages 8-18) (Journal of American Medicine).
- There is a dramatic **increase in diabetes** in children and adolescents (National Institutes of Health).
- The prevalence of **childhood asthma has increased** significantly and is especially high in urban communities with high poverty (Journal of Epidemiology and Community Health).

# Risks and Trends in Children's Health

- In the past 30-40 years there has been a steep decline in children's physical activity (PA).
- Approximately 50% of youth meet the recommended guidelines of PA.
- 48-69% of youth don't attend PE or recess.
- Since NCLB almost 50% of school administrators have replaced P.E. or recess with more core subject learning.

(Institute of Medicine, 2013)

# Green space is one promising strategy for reducing health disparities.

- Families and children who live in lower-income communities have significantly **less access to recreational facilities** than those in higher-income or predominately white communities. (Powel, 2006; Garcia, 2008; Moore, 2008)
- Access to parks and recreational facilities is associated with **lower body mass index** among children and **increased physical activity** among adults. (Wolsch, 2010)
- Communities with high poverty appear to **benefit proportionally more from green space access** than those with higher-income. (Mitchell, 2008)

**American Public Health Association (APHA)** released a policy statement in November 2013 that encourages “land use decisions that **prioritize access to natural areas and green spaces** for residents of all ages, abilities and income levels.”



in November 2013

*“Abandoned lots  
and stray dogs  
make healthy  
living harder. I  
would not want  
to run or walk  
here.”*

*- Tarneisha J.,  
Wheatley High  
School*





Why  
schoolyards  
for increased  
access to  
green space?



*During school*  
children can have  
an **enhanced**  
**recess and P.E.**  
**environment** and  
**learn all core**  
**subjects**  
**outdoors—**  
math, science,  
reading, writing.



***After school* programs can enhance **outdoor learning and play** with a rich environment with a **high variety** in activities.**



Children can increase physical activity on green schoolyards where they jump, climb, dig, lift, rake, build, and get more moderate PA in a **non-competitive** play environment.



# Schools are community hubs for families and neighborhoods.



# ***Physical Benefits of Green School Grounds: The Latest Research***

Schoolyard designs that include natural **elements increase moderate physical activity** (Nedocic & Morrissey, 2013; Pagel et al., 2014; Brink et al. 2010).

Green schoolyards are more effective at engaging children of **all fitness levels** (Barton et al., 2014).

Settings with a mixture of green and built elements shows promise in **increasing girls physical activity** and children **of mixed age levels** (Pagel et al, 2014; Martensson et al., 2014).

# ***Mental and Cognitive Benefits of Green School Grounds: The Latest Research***

Green schoolyards **significantly decrease stress levels** and enhance psychological wellbeing (Kelx, Evand & Roderer, 2013).

Schoolyard natural areas enable students to **escape stress, focus, build competence, and build supportive social groups**. (Chawla, Keena, Pevac & Stanley, 2014).

Contact with school ground green open spaces is associated with better performances on tasks requiring **direct attention** (Carrus et al., 2012).

Children exhibit **more positive social behaviors** on green school grounds (Carrus et al., 2012).



# *Academic Benefits* of Green School Grounds: The Latest Research

Academic performance is enhanced in **reading, writing, math, science** (Williams & Dixon, 2013; Blair 2014; Smith, 2013).

Natural environments increased **student engagement** in learning and **more time spent on task** (Smith, 2013; Rios & Brewer, 2014).

Views of nature-rich areas with trees and shrubs contrasted with views of fields, lawns and parking lots are positively associated with:

- **Standardized test scores**
  - **Graduation rates**
  - **Plans to attend 4-year college**
- (Matsouka, 2010)





**THE CHILDREN & NATURE NETWORK IS FUELING THE WORLDWIDE GRASSROOTS MOVEMENT TO CREATE A FUTURE IN WHICH ALL CHILDREN PLAY, LEARN AND GROW WITH NATURE IN THEIR EVERYDAY LIVES.**

A photograph of four young girls of diverse backgrounds crouching in a lush garden. They are wearing white t-shirts and holding yellow signs that together read "Let's G.O.! Get Outside". The girl on the far left is wearing camouflage pants and gloves. The girl in the middle is wearing a white t-shirt with "Let's" visible. The girl on the far right is wearing a white t-shirt. The background shows other people and garden structures like a wire cage.

Let's

G.O.!

Get

Outside

## HOW WE POWER THE MOVEMENT

**WE TRAIN AND CONVENE** the network to act in their communities

**WE CHANGE THE SYSTEM** through partnerships and policy

**WE BROADCAST INFORMATION** to fuel grassroots social change

# C&NN Green School Grounds Project

Scientific Literature  
Review

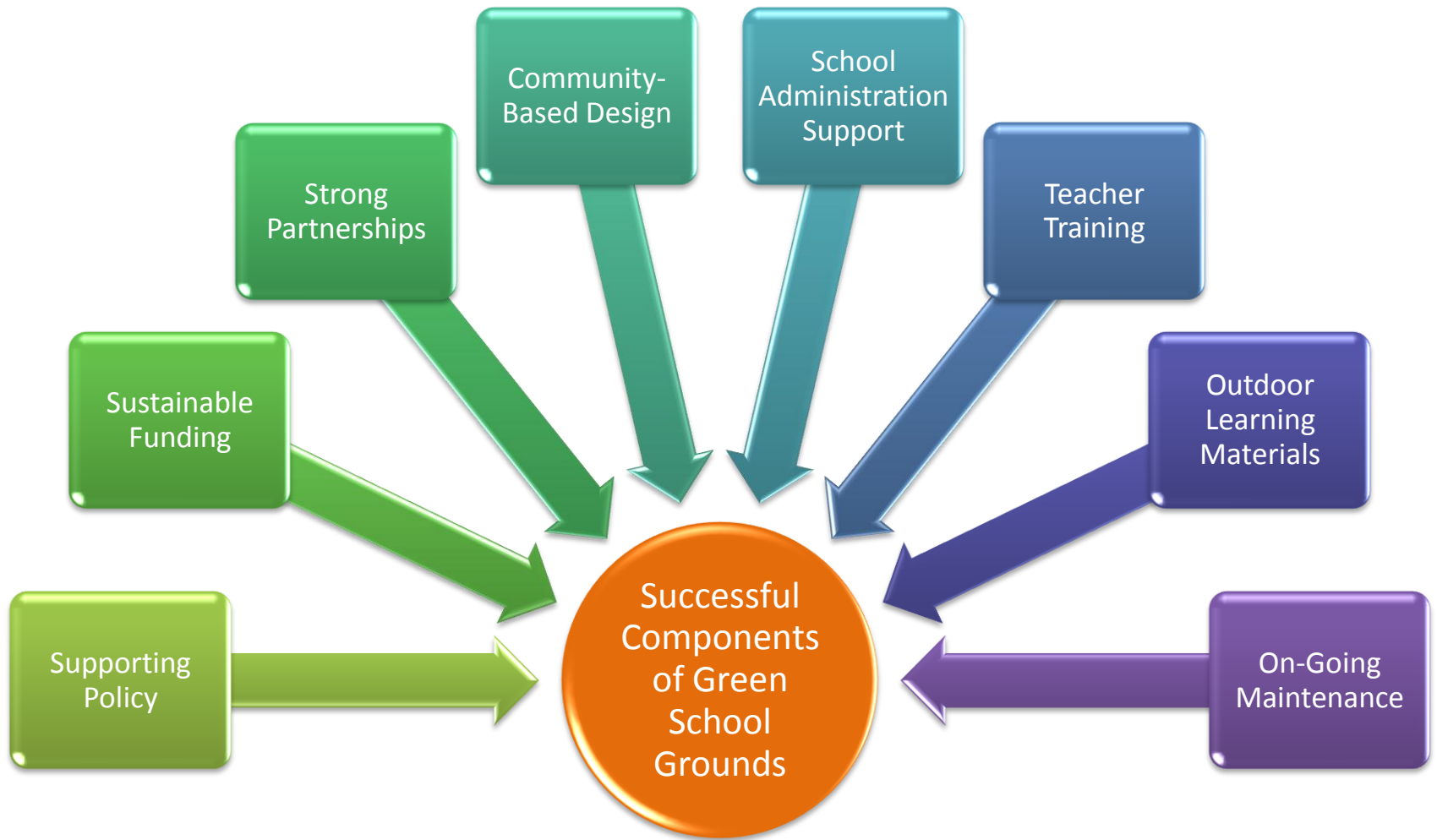
Interviews with Key  
Leaders in the Field

Focus Groups with  
Community Stakeholders

Site Visits

Research in Best Practice  
Models





Partnerships are key  
to creating green  
school grounds  
because schools can't  
reach their goals alone



Trust &  
Relationship

Sustainable  
Financial Model

**Partnerships for  
Green School  
Grounds**

Broad Constituent  
Engagement

Shared Interests  
and Goals



dcgreens





connecting communities  
to healthy food in the nation's capital

*“The Healthy Schools Act of 2010 was a game changer. It ended up being a connector for all of us who had been doing school gardens for years.”*

Sarah Holway, DC Greens



Groups have been working together for decades

Policy allows for sustainable funding



DCG convene groups to support schools

Non-profit orgs coordinate efforts





## Funding Partners include:

### **Government**

City of Houston Housing and Community Development  
Department (Federal Block Grants)

City of Pasadena

Houston City Council

Houston Mayor's Office (office space/supplies)

Harris County Precincts 1, 2, 4

### **Foundations**

### **Corporations**

### **School Districts**

### **Non-Profits**

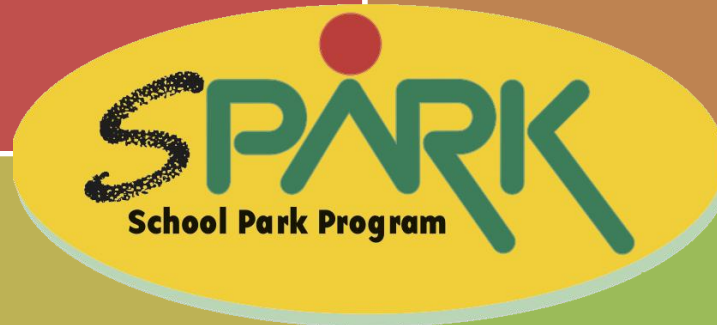
*“We believe this funding model can be replicated, but there would be different players, different partners, and different systems in place to make it happen.”*

**Kathleen Ownby, Spark Park**



Relationships building  
since 1983

Multi-Source funding  
with government dollars  
at the center



Long-standing  
commitment to projects  
by local non-profits

School and city set  
common goal of  
community access

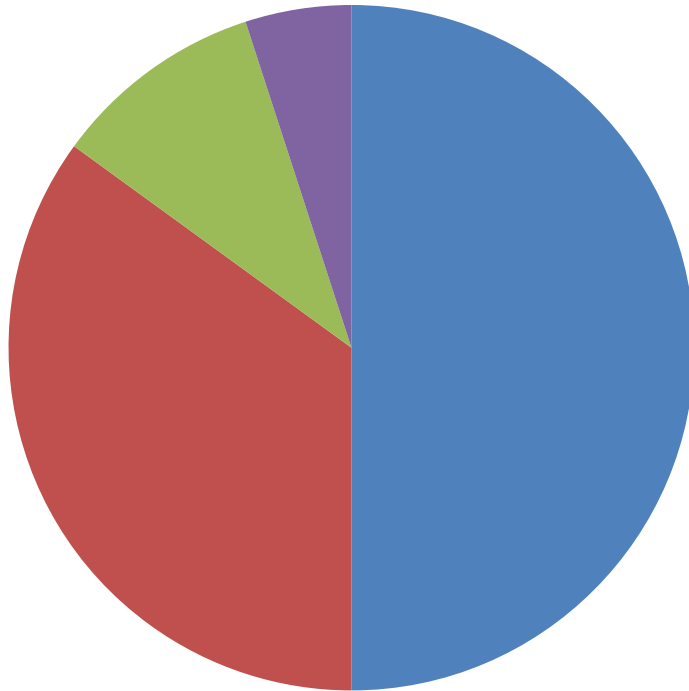
REAL



school gardens



# Funding Partners



- Corporate
- Foundations
- Earned Income
- Individuals

*“We want to be a partner in every sense of the word—beyond the check. We love to have opportunities to engage our employees in the community. And the garden addresses so many diseases, including physical activity.”*

--Dr. Catherine Oliveros, Blue Cross Blue Shield of Texas



RSG Staff works hard on school district administration relationships

Fulltime staff includes *Director of Corporate Relations*



REAL  
school gardens

Connect broad spectrum community partners to 5 school districts

Corporate funders get their objectives accomplished through the gardens with shared goals

## TOTAL OF 475 CAMPAIGNS IN 48 STATES AND 16 COUNTRIES WORLDWIDE

Campaigns listed include grassroots coalitions, family nature clubs, and youth-led community efforts.



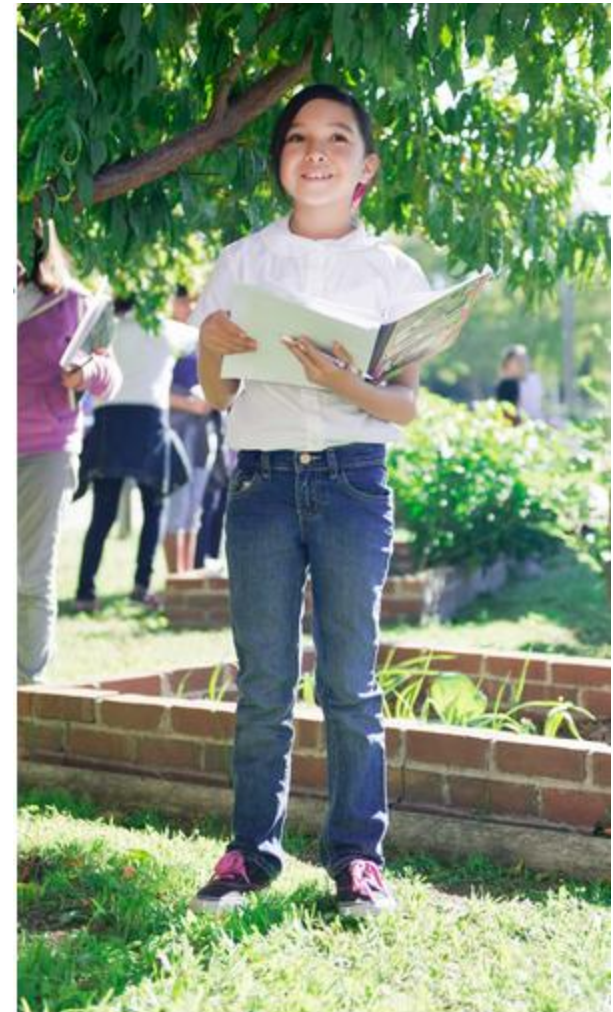
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[www.childrenandnature.org](http://www.childrenandnature.org)



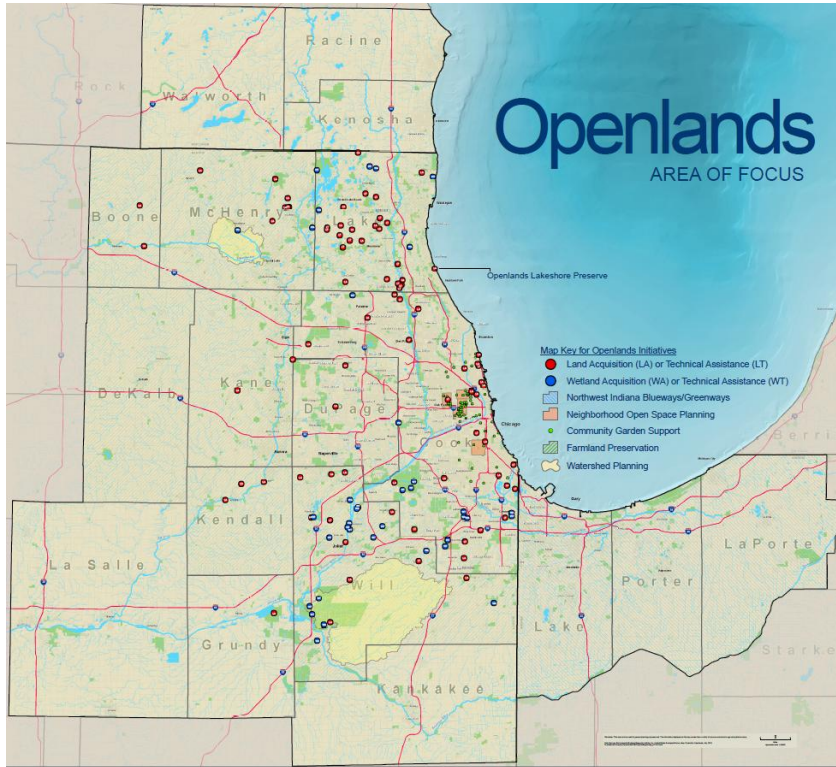


**MANAGING PARTNERS  
HEALTHY SCHOOLS CAMPAIGN + OPENLANDS**

# Openlands believes that nature is vital to all people.



openlands  
conserving nature for life



# Program Goal

Chicago's outdated schoolyards can be reimagined as vibrant outdoor places that benefit students, communities, and the environment.



Health & Wellness



Outdoor Learning



Stormwater Management





# Health & Wellness

- Support Chicago Public Schools wellness, recess and Physical Education policies
- Address high childhood obesity rates
- Create access to green space and play areas



# Outdoor Learning

- Hands-on activities
- Increased awareness of environmental issues
- Improved cognitive development
- Daily connection to nature



# Stormwater Management

- Addressing flooding & pollution issues
- Capturing rain where it falls



# Space to Grow Partners



# Building the Partnership: Steering Committee

- Managing Partners
- Capital Partners
- Nonprofit Partners



# Building the Partnership

- Shared Vision
- Site Selection
- Leveraging Expertise
- Integrated Process
- Unique Financial Model
- Engaging New Partners



# Site Selection: Three Stages

- Stage 1: Minimum Criteria
  - Invited to apply
- Stage 2: Application Review/Rank
  - Includes school readiness and community data
- Stage 3: Final Partner Review
  - Geographic equity, site suitability





# Grissom







# Grissom





# Morrill





Did you like our benches?



Morrill School needed a safe playground...and Morrill has a safe playground!

We love our benches!



We have recess around a field house with fixed windows and a *You Are Beautiful* mural!

Thank you!

healthy schools campaign

openlands



We had recess around a field house with broken windows and graffiti.

No tripping hazards!



Fences with gaping holes



The only "nature" we could play on was a corner-patch of dirt.



Tripping hazards



New fences!



Lots of nature to play in, explore, and learn about!

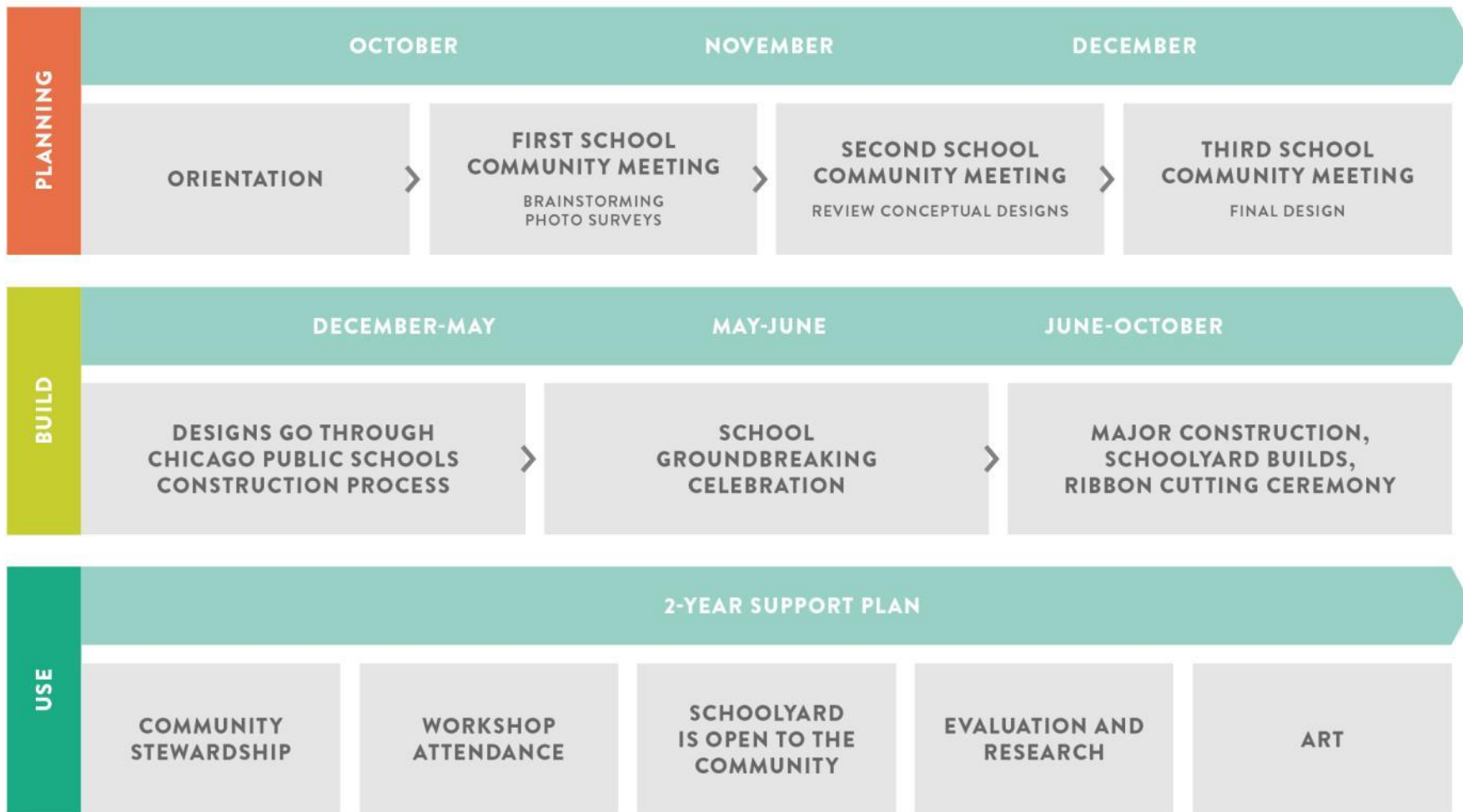




healthy  
schools  
campaign



# SCHOOLYARD PLANNING, BUILD + USE



# Engaging the School Community: Brainstorming & Visual Preference Survey





# PHOTO SURVEY

Imagine the possibilities!




















(Please circle one)

Student; Grade \_\_\_\_  
Parent

Teacher  
Staff

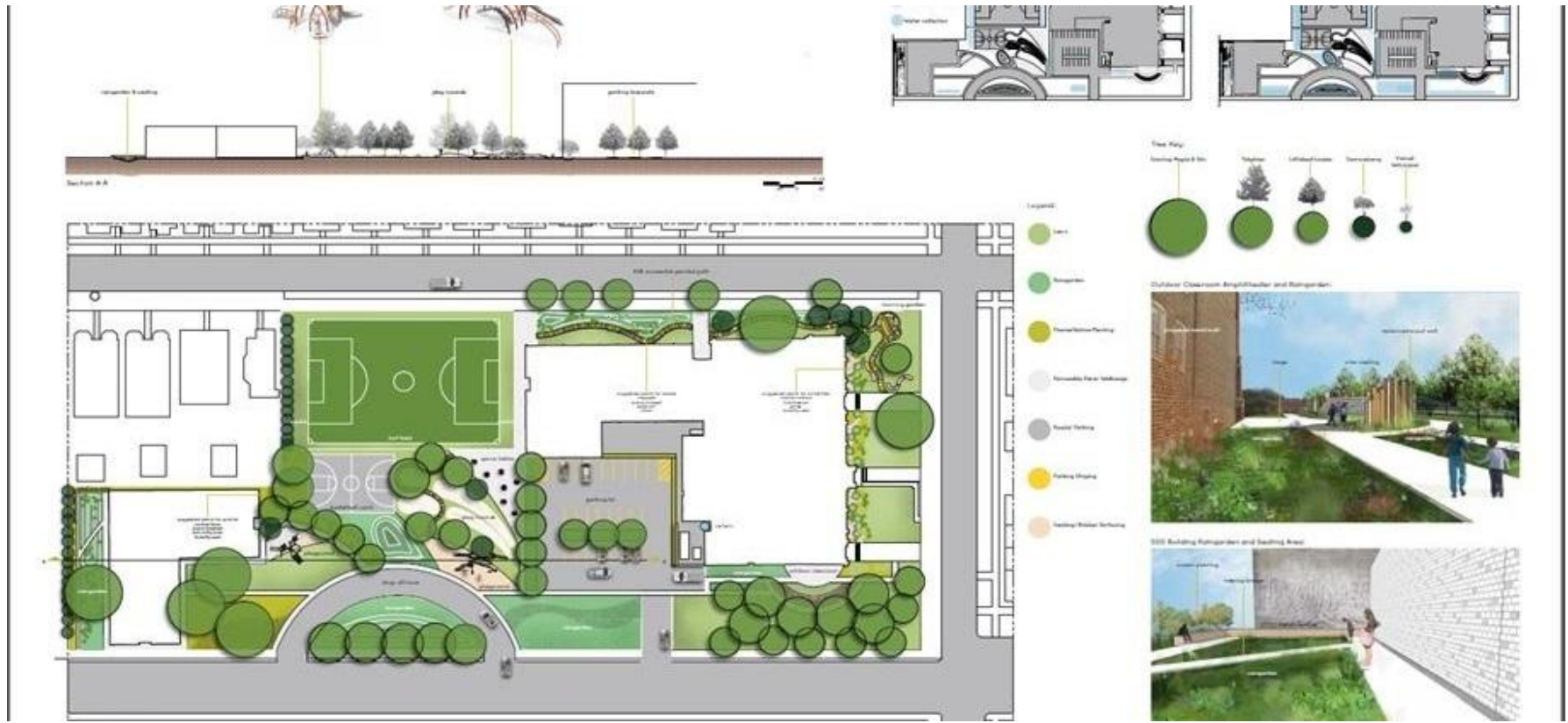
Community Member  
Community Organization

Please circle the top 5 things you want in your new schoolyard!

				
Shade Structure	Seating	Outdoor Classroom	Quiet Places	Vegetable Garden
				
Butterfly Garden	Native Plants	Sidewalk Games	Words & Quotes	Game Table
				
Artificial Turf Field	Walking/Running Track	Basketball	Baseball	Outcropping Stone
				Write your own idea for the schoolyard!
Swings	Play Mounds	Fitness Equipment	Play Structure	

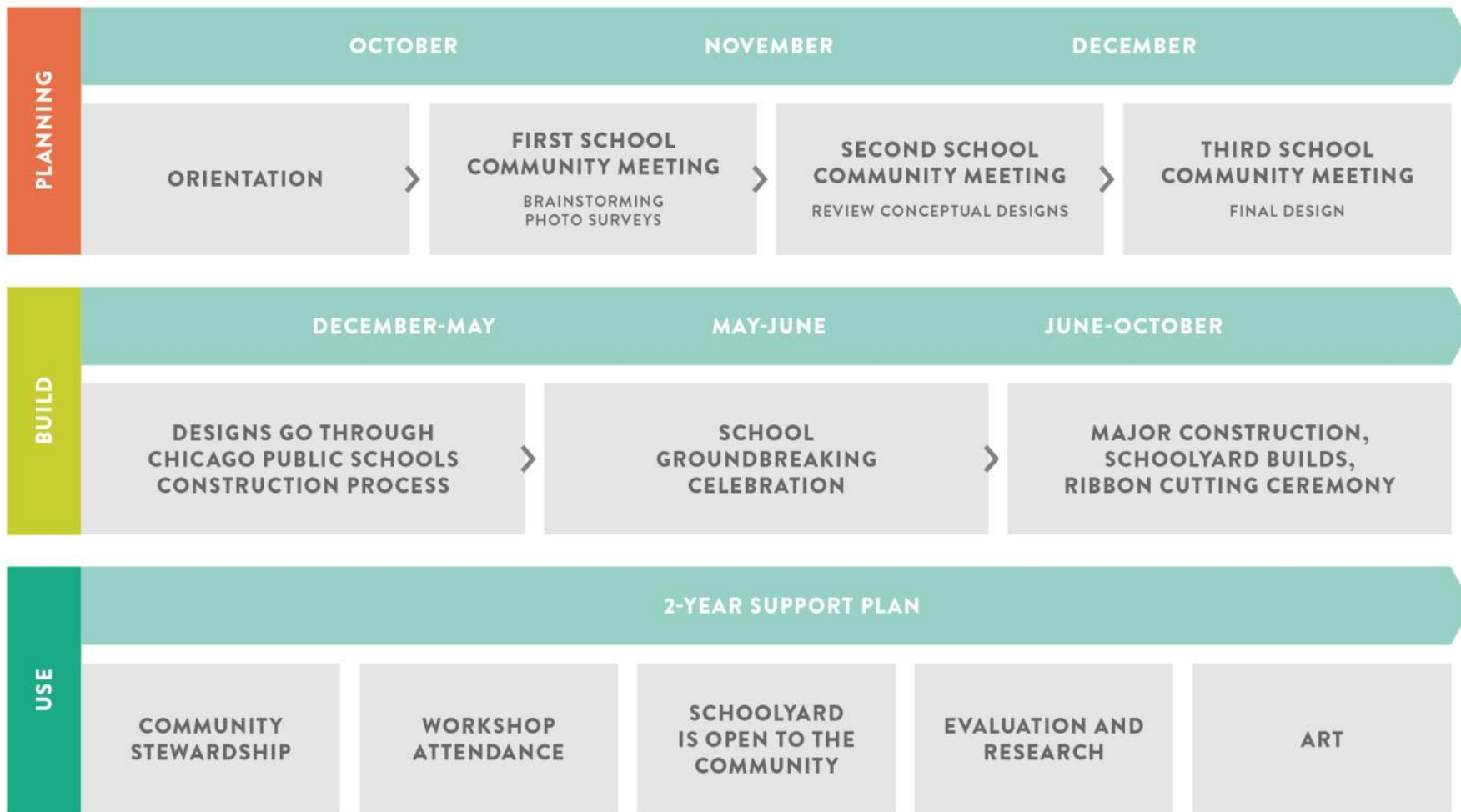


# Engaging the School Community: Initial Concept Designs





# SCHOOLYARD PLANNING, BUILD + USE



# Two-Year Support Plan: Professional Development & Trainings



# Two-Year Support Plan: Community Engagement



# Measuring Progress

- Evaluating the Impact
  - Students
  - Schools
  - Community
- Evaluating the Process
- Measuring Stormwater
  - Quantity
  - Quality



# Evolving Process: Engaging New Partners



# Achieving the Goal

- Dynamic Partnerships
- New Funding Model
- Inclusive Planning Process
- Innovative Stormwater Management
- Capacity Building
- Empowering the Community





