

Seeds of Change Youth Garden Symposium 2015



Sustaining garden-based learning in
public schools

- Washington DC School Garden Program
 - Education Outside
 - CitySprouts
 - REAL School Gardens

DC School Garden Program



DC Healthy Schools Act

- Passed by DC City Council in May 2010
- Comprehensive school health and wellness legislation
- Provides local funding to assist schools with compliance
- Funded by sales tax on sugar-sweetened and artificially sweetened beverages

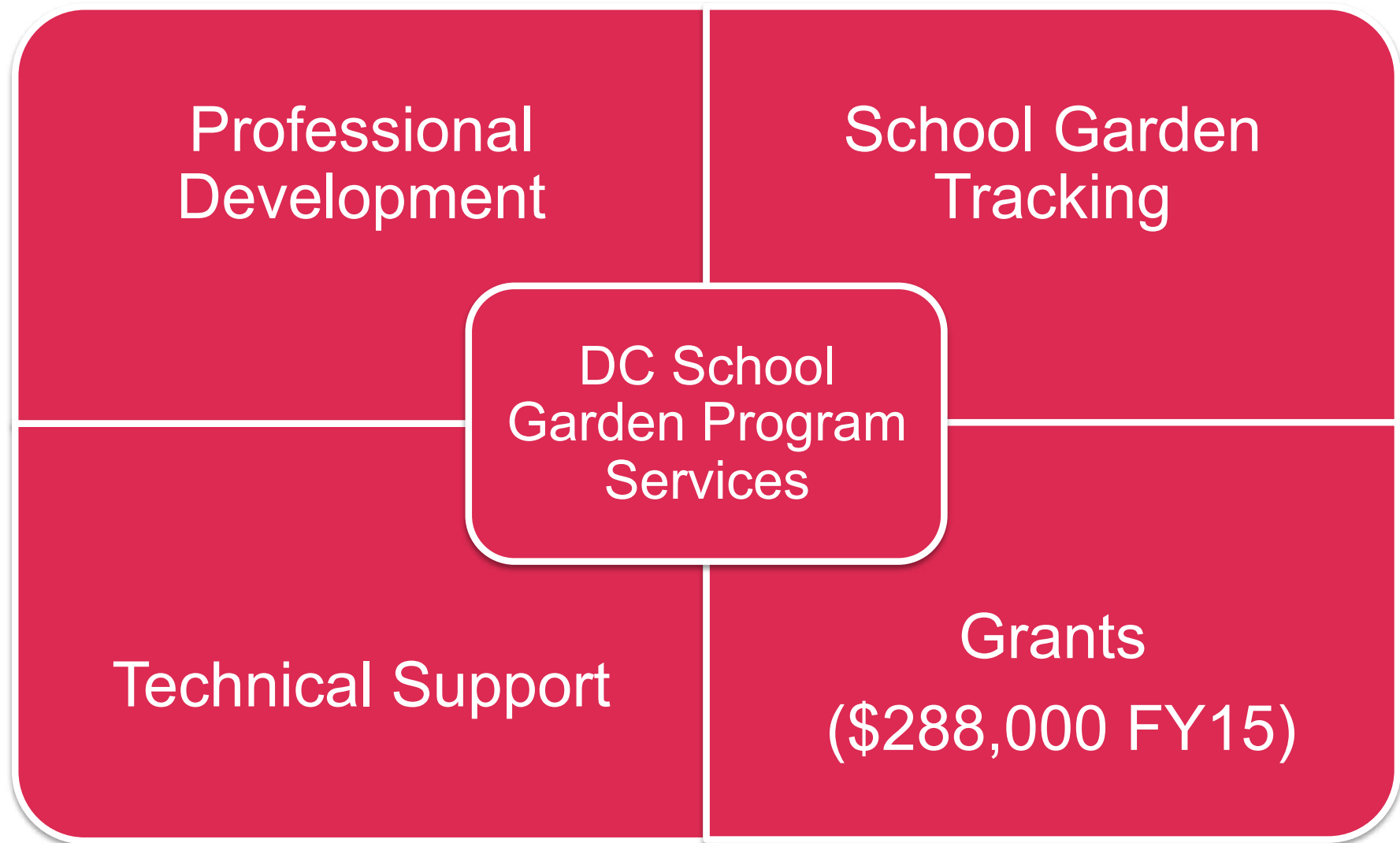
Components of the Act

- School Nutrition
- Nutrition Education and Promotion
- **Farm to School and School Gardens**
- Environmental Literacy
- Local Wellness Policies
- School Wellness Councils
- Physical Education/ Physical Activity
- Accountability and Evaluation

The School Garden Program Supports..

- 103 School Gardens (49%)
 - 12 Garden-Based Organizations
 - 13,000 Students
 - 54 School Gardens (62%) have garden coordinators
-

School Garden Program Initiatives



Professional Development

Framework for Professional Development

Education

- Supporting Teachers
- Managing Student Groups
- Lesson Planning and Curriculum Integration
- Structuring School Staff Garden Trainings
- Assessing the Program

Health

- Cooking Inside and Outside
- Using Produce
- Building Structures
- Maximizing Harvests
- Preparing Fresh Produce for Taste Tests

Environment

- Managing Garden Systems (“Eco”, Soil, Compost, Water, Plants, Pests)
- Facilitating Planning and Design

Other: Securing Funding, Managing Volunteers, Managing Committees, Engaging the Community and Food Service Vendors

School Garden Tracking

Education

- Track quality of curriculum and instruction at individual school garden programs.

Health

- Survey attitude and behavior change among students and teachers as a result of participating in grant activities.

Environment

- Track use of garden and type.
-

Technical Support

Education

- Observation Tool provides feedback to educators.

Health

- On site garden support is available.

Environment

- Assist schools to apply for the US Green Ribbon School Program.
 - Developed Outdoor Classroom Design Guidelines and advise on Outdoor Classroom Project.
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School Garden Assessment Tool

- Primary Tool for collecting data on the state of school gardens
- Informs district-wide training needs as well as feedback to individual programs

	2012-13	2013-14	2014-15*
Design	74%	89%	71%
Systems	72%	82%	67%
Program Organization	71%	82%	72%
Instruction	59%	70%	63%

*Data based on 26 schools. In 2014-2015 more new programs were assessed using this tool than in previous years.



education
OUTSIDE

open the classroom door

At **Education Outside**, we believe we can transform public education by bringing life to the asphalt expanses of school grounds. Every day, we work with schools and districts to turn urban schoolyards into 21st-century learning labs, where inspired learning takes root. Unlocking the potential of outdoor spaces enlivens the educational experience and better engages students, teachers, families, and communities.



Education Outside

San Francisco, California

- 501c3 Social Impact Organization
- 14 staff, 40 Service Members at 37 Schools
- Partnering with **AmeriCorps & San Francisco Unified School District (SFUSD)**
 - SFUSD Science Program Administrator
 - SFUSD Director of Sustainability
 - SFUSD Facilities
 - Training: SFUSD Pupil Services



SFUSD SAN FRANCISCO
PUBLIC SCHOOLS




The History & Opportunity

Advocacy for \$14 Million in Proposition A Bond Funding



Green Schoolyards in 84 SFUSD Schools by 2016



A photograph of an outdoor playground area at Fairmount Elementary. The playground is paved with asphalt and features several colorful painted squares in shades of green, yellow, and blue. A picnic table with two benches is situated in the center. In the foreground, there is a circular area of sand. The background shows a concrete staircase leading up to a building, surrounded by trees and a fence.

Fairmount Elementary: Before

After



The Perfect Storm

Activating SFUSD's Outdoor Classrooms



Common Core & Next
Generation Science
Standards

SFUSD's Sustainability
Initiative

SFUSD's STEM Initiative

Cultivating Healthy Kids

Education Outside Service Corps (AmeriCorps)





A service corps program dedicated to integrating hands-on environmental science education and sustainability into the fabric of the urban public education experience.

The Model

- K-5 focus
- Service member salary \$25,000/school year plus benefits
- 2-year service member commitment
- One full-time service member per school, integrated into school staff
- Three Strands: **Garden-Based Education, Leadership, Gardening & Design**
- Engaging standardized curriculum, with ability to modify
- Teacher/service member collaboration and mutual modeling
- Each service member provides 1,700 hours of on-the-ground service per school year
- Service members receive 300 hours of training per school year (3-week boot camp and ongoing Friday trainings)
- Program measurables tracked through a central online database & 3 year formal evaluation with Lawrence Hall of Science
- Focus on service member transition



High Hopes – Few Opportunities:

The State of Elementary Science Education in California



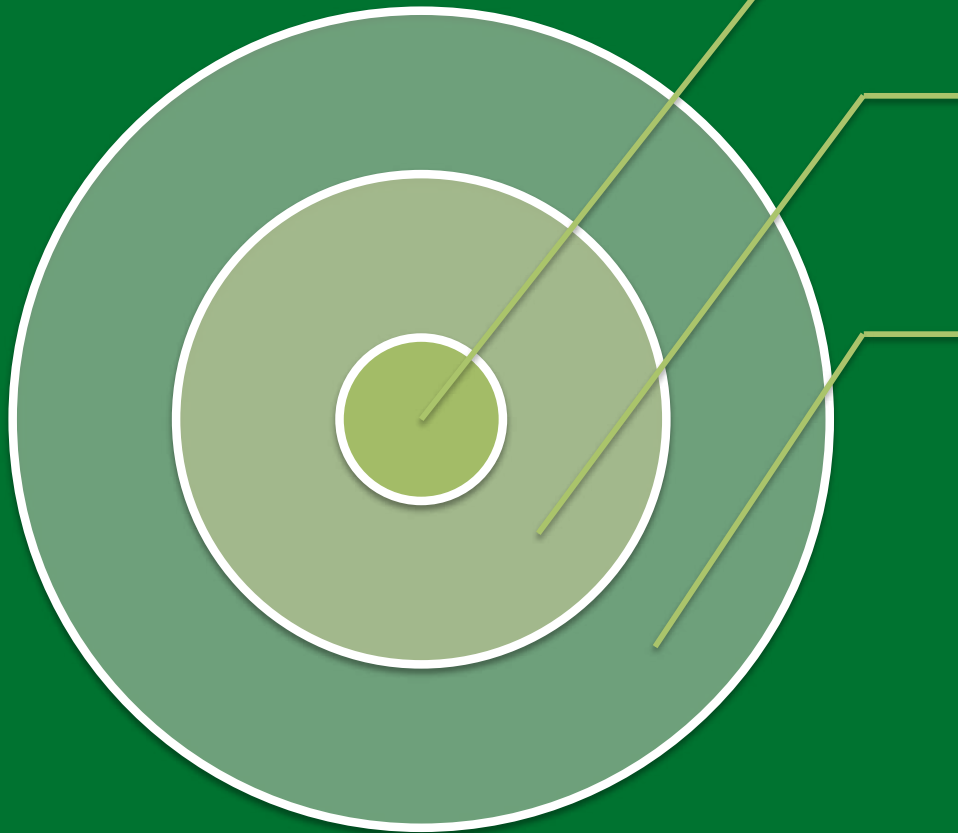
Center for the Future of Teaching and Learning at WestEd, The Lawrence Hall of Science at University of California, Berkeley, and SRI International

The Schoolyard: the Foundation for EE & Formative Science Engagement

The green schoolyard is a young student's first "field trip" where they are activated towards science and connect to their local environment weekly, as a part of core instruction.

The Bay Area

California and Beyond



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Garden-Based Science Education



Service members provide inspiring, hands-on outdoor learning opportunities designed to bring science to life during the school day. Service members teach Education Outside's standards-based K-5 science curriculum oriented to Next Generation Science Standards and Common Core Standards in ELA.



Seed to Table



Seed to Table

Leadership Development



Service members are involved in weekly training and leadership development activities coordinated by Education Outside in order to become more active and engaged members of their school communities.

Sustainability (Leadership)



Teaching students and communities they have the power to make a difference by engaging with SFUSD and local programs working at the site level.

SF Department of the Environment: Food to Flowers Lunchroom Composting

SF Department of Public Health/Safe Routes to School: Walk/Bike to School Days

SFUSD's Energy Savings Program: Shared Savings

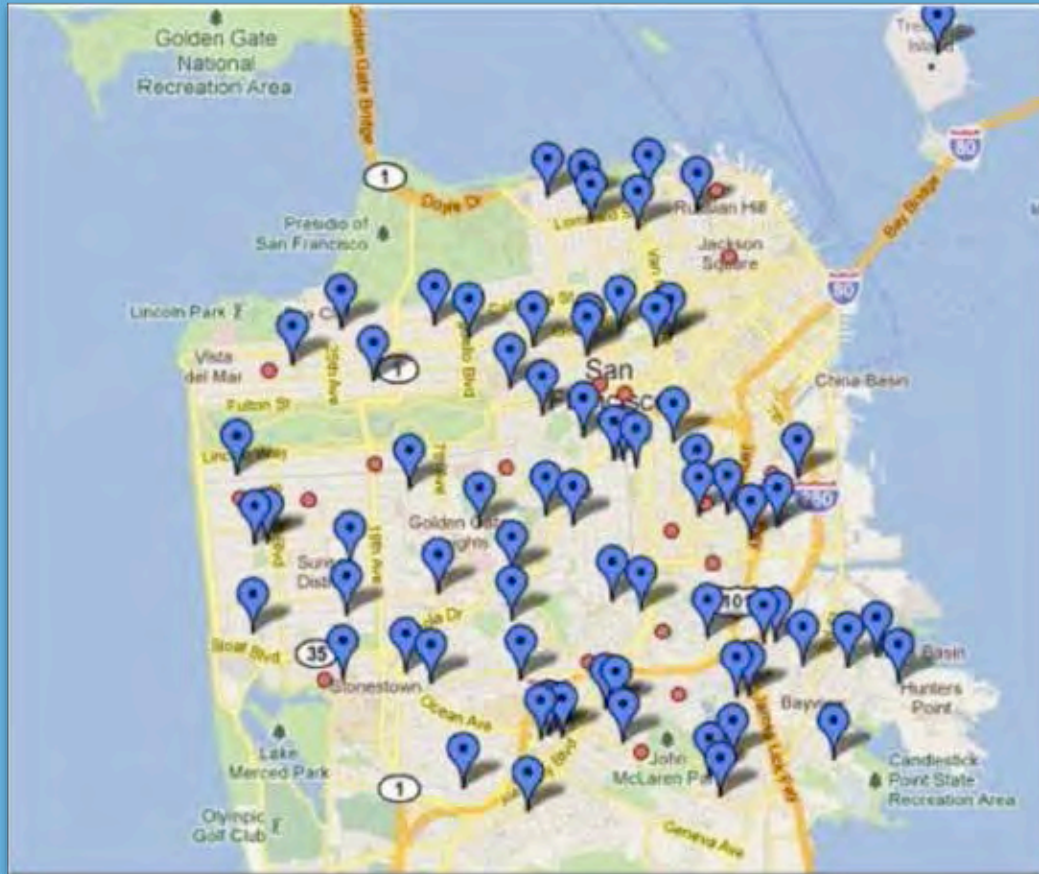
SFUSD Facilities: Green Schoolyard Workdays for Site Improvement

Gardening & Design



Service members are trained and encouraged to engage their school communities in improving the design and infrastructure of their green schoolyard. Each service member completes at least one legacy project such as a shade structure, visual barriers, new seating, or a three-bin composting system.

37 Schools So Far



- ❖ 37 service members
- ❖ 14,000 K-5 students
- ❖ Approx. 650 teachers
- ❖ Hundreds of SFUSD parents & community members involved
- ❖ Over 15,000 hands on science and ecoliteracy lessons taught during the school day, outside, in one year



Practice: Evaluation



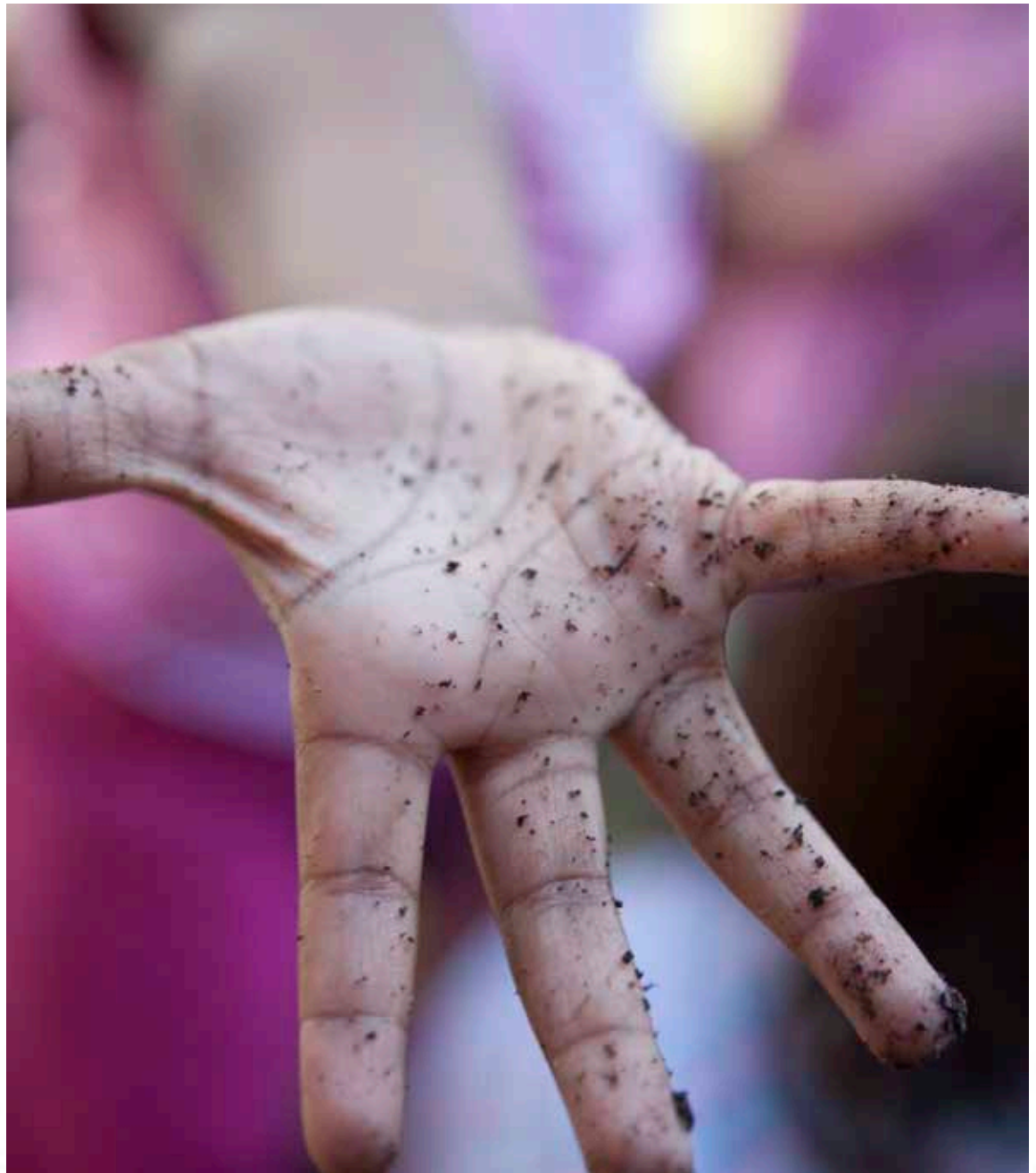
**THE LAWRENCE
HALL OF SCIENCE**
UNIVERSITY OF CALIFORNIA, BERKELEY



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The CitySprouts vision is that *all children* experience hands-on outdoor learning, build a relationship with nature and get support and practice in making good food choices.





Our rapidly changing world presents unprecedented challenges for children growing up today, top among them:

- Opportunities to be in the natural world
- Access to nourishing food and habits of good food choice
- Time to be curious— public education that builds on authentic experience





Children growing up poor in high-need neighborhoods are especially vulnerable

- Dense, urban neighborhoods offer few green spaces for children to explore
- Access to good food and diet-related illness are linked
- Poor children also have far less access to experiential learning– and lag far behind their peers in academic success





The City

CitySprouts school garden program partners with 19 public schools in Boston and Cambridge to make garden-based learning part of school culture and teachers' practice.





CitySprouts provides its schools

- An edible learning garden in the schoolyard
- A garden coordinator at the school one morning and one afternoon a week, through the school year
- A forum for teachers to share resources and best-practices





CitySprouts' impact

- Increase in children's academic engagement
- Children making healthier food choices
- Increase in children's understanding & appreciation of the natural world
- Increased capacity for teachers to sustain garden-based learning as practice





Outcome: Increased capacity for teachers to integrate garden-based learning in their practice

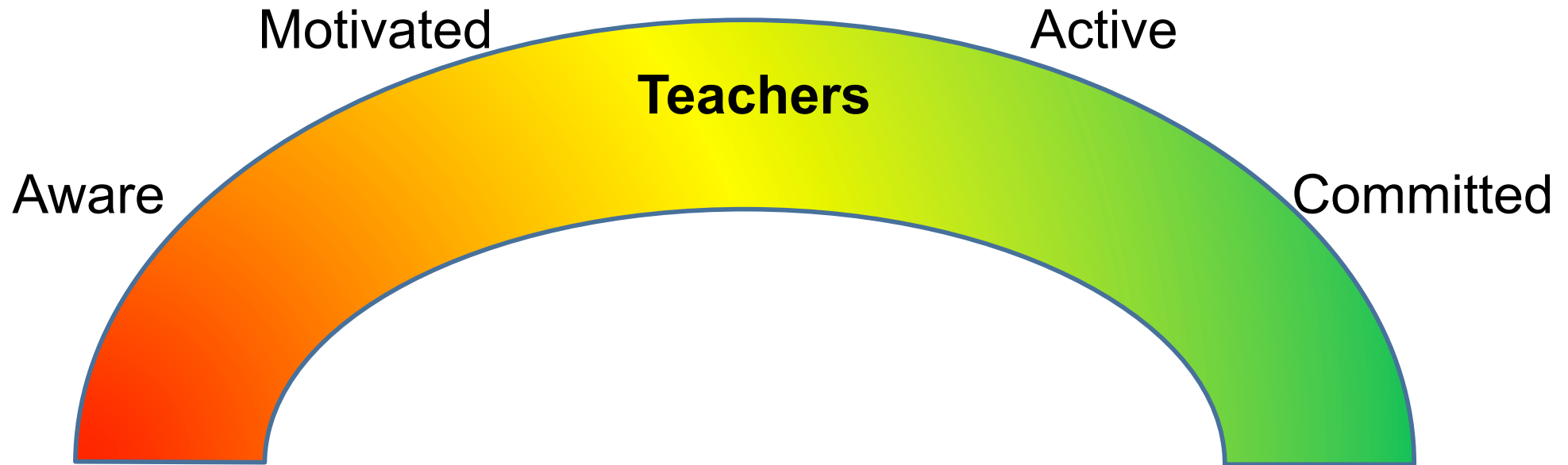


The Teacher Engagement Model





Teacher Engagement Model



- We are determining criteria for four levels of teacher engagement, reflecting the program's accumulated experience and confirmed by on-going data collection

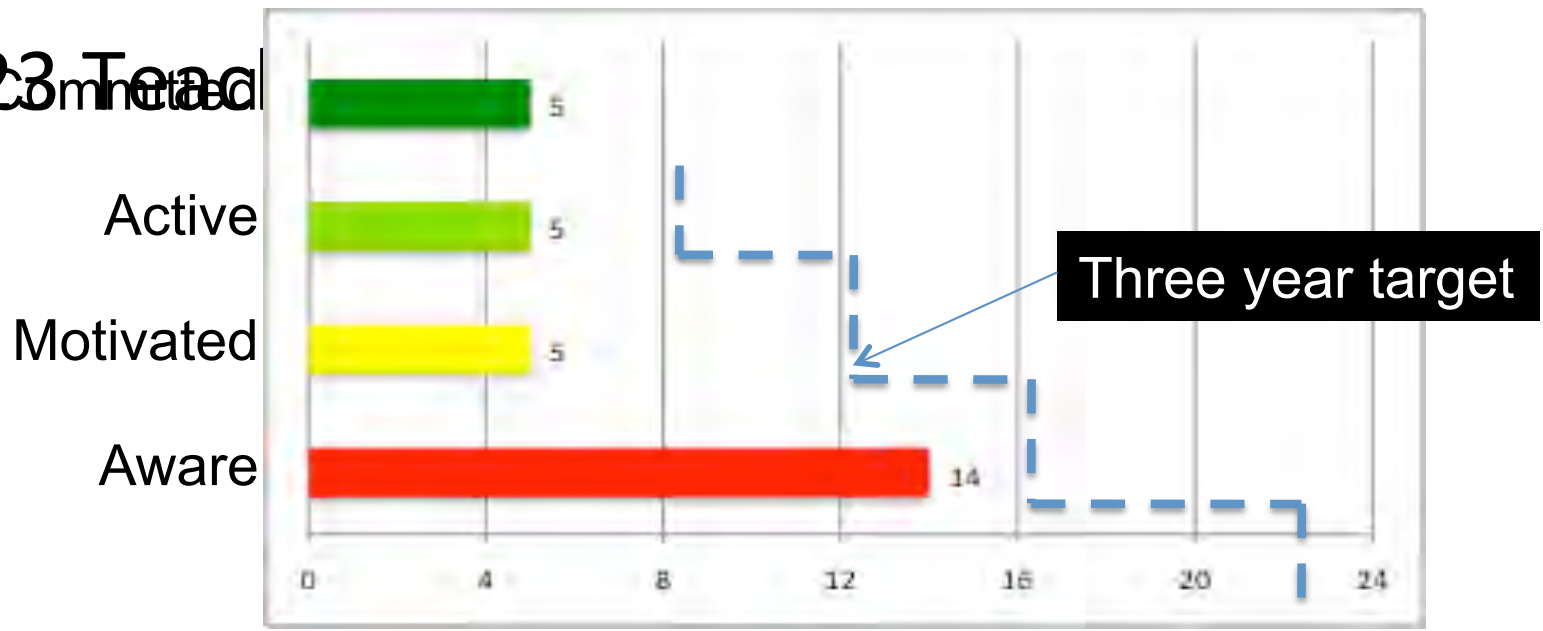


Criteria	Aware	Motivated	Active	Committed
1. Is the teacher using garden - based learning (GBL) with students?	Does not report using garden with students EXCEPT CIDER.	Students engaged in g-b activity 2 times in season.	Students engaged in g-b activity up to 3 times in season.	Students engaged in g-b activity at least 4 times in season.
+				
2. Is the teacher utilizing GC to plan or execute lessons?	Teacher is contacted by GC but does not respond.	Contact made with GC- GC planned	Contact made with GC- shared planning	Teacher plans g-b lesson or activity, project or unit with GC. Could include teacher requests material or set-up for g-b activity without GC or request for 'garden expert' visit).
or				
3. Is the teacher engaged in sharing garden-based learning with peers?	No indications	Seeks information but does not offer material. Could include signing up for Forum webinar (may or may not follow through).	Shares/demonstrates g-b lesson or activity with peers at grade-level meeting or other venue. Could include participating in CS Teacher Forum.	Shares/demonstrates g-b lesson or activity with peers at grade-level meeting or other venue. Could include participating in CS Teacher Forum.



Teacher Engagement Model

- 23 Teachers

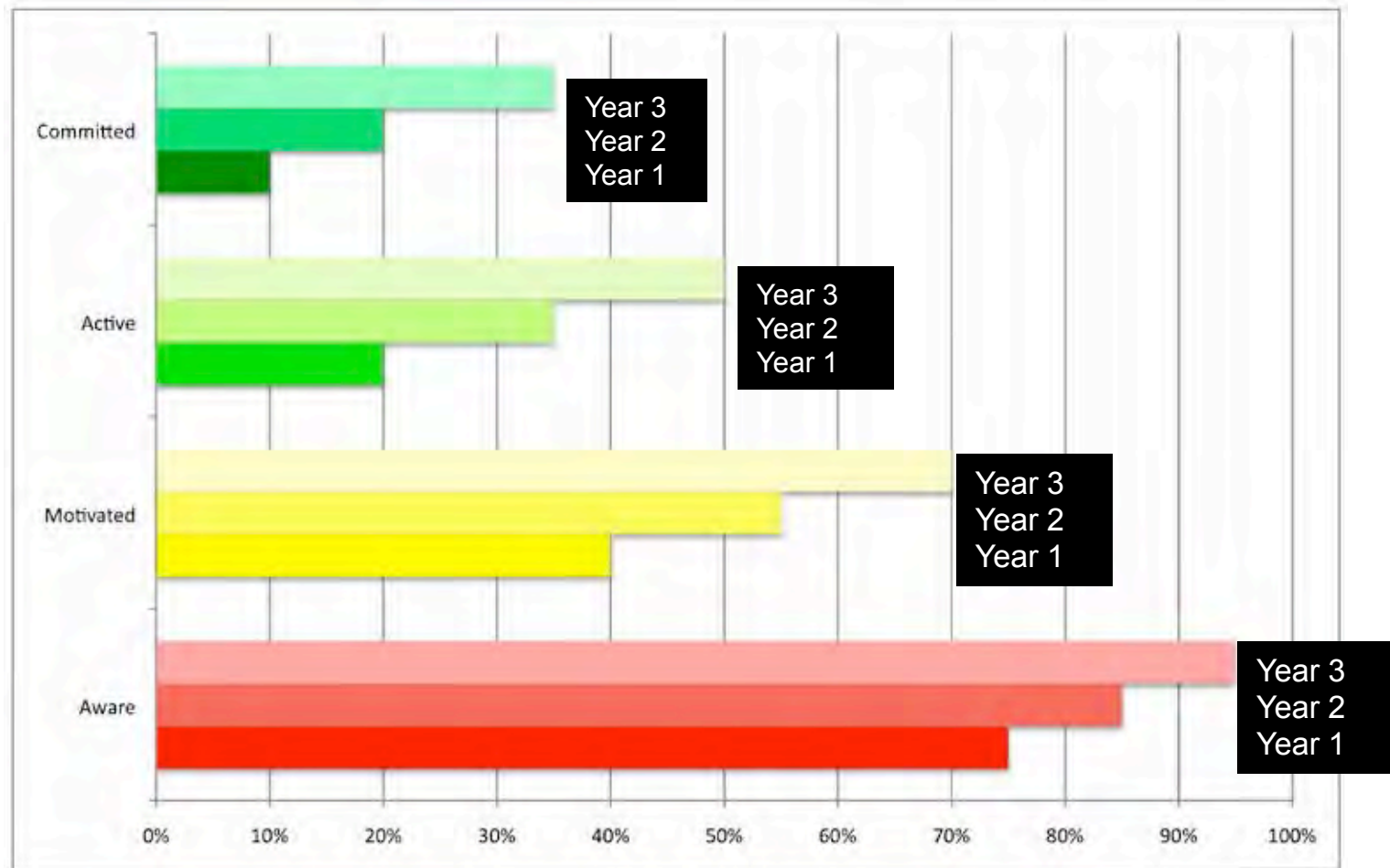


It allows us to set target levels for teacher engagement at our partner schools. What does “ideal” look like? What does “not working” look like?

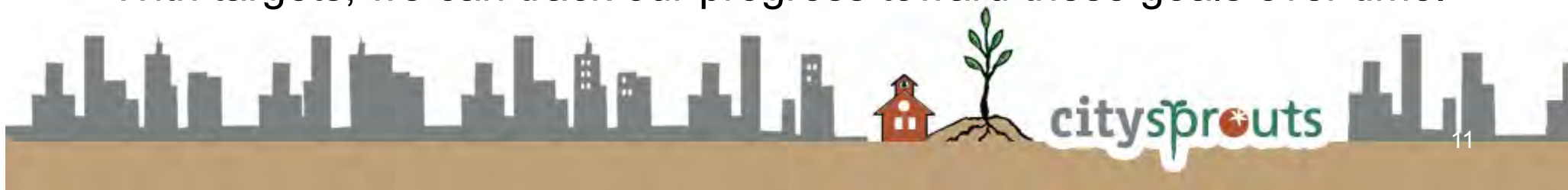




Teacher Engagement Model



With targets, we can track our progress toward these goals over time.



REAL



school gardens



We create learning gardens that grow successful students

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A close-up photograph of a young boy with dark hair and brown eyes, looking directly at the camera with a slight smile. He is wearing a brown t-shirt and a grey jacket. He is holding several earthworms in his hands, with one worm being held up by his right hand and another group in his left hand. The background is a blurred green field.

What do you see?

Our Mission

We create learning gardens
that grow successful students.

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Our Formula

Effective Educators

+

Engaged Students

Academic Success

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Our Impact

Effective Educators

- % of teachers reporting they are highly effective doubles after three years of programming (*and is on the rise*)

Engaged Students

- 94% of educators state that REAL School Gardens is “a major contributor to increased engagement in learning for my students”.
- Ongoing student engagement evaluation

Academic Success

- Partner schools have seen standardized test score pass rates increase between **12% - 15%**, with the largest gains in Science.



Our Program

We Build and Revitalize Learning Gardens

- Designed by students and teachers
- Built by community volunteers
- Tailored to each school's unique needs

We Train Teachers

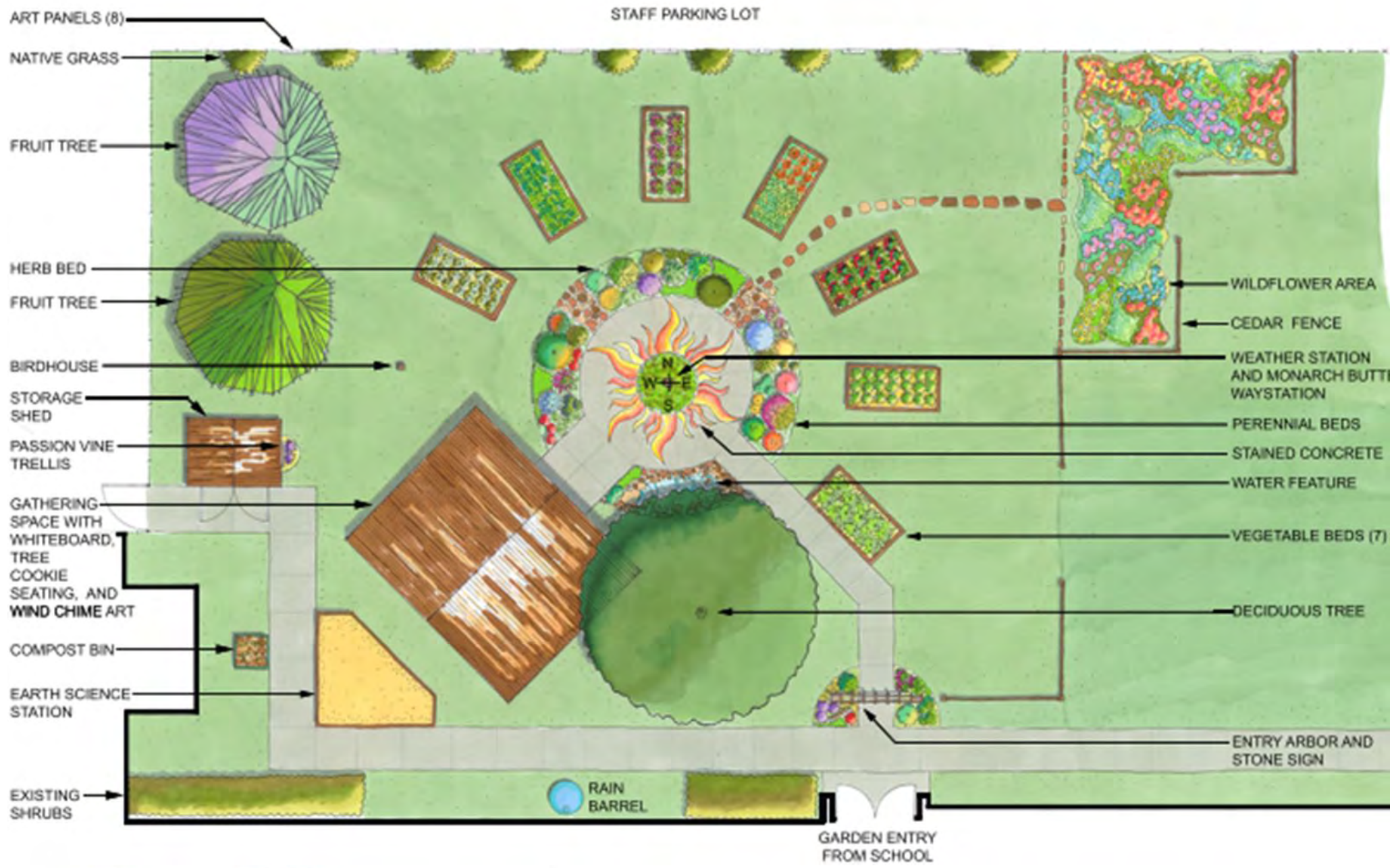
- Whole school training sessions
- On-the-job training
- Multi-school training



We Build Gardens.

We Build Gardens.





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We Train Teachers.



Effective Educators

- Attitudes
- Skills
- Knowledge

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Healthy Lifestyles

- Farm to School
- Integrated Curriculum

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Environmental Stewardship

- **Water conservation**
- **Habitat restoration**

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Curricular Resources



www.realschoolgardens.org/lessons

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Questions?

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