# GREENING of SCHOOLYARDS

Revitalizing school campuses for all ages to utilize nature connections to expand outdoor learning, diversify play and promote wellness









Presented by:

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Where are you on the GOSY Journey?

Who is in the room today?
Please join the conversation with your name, organization and role

o = ???

1 = hmmm, I like nature & want to help

2 = Got our foot in the door, starting conversations

3 = Got some plants in the ground

4 = We have buy in and moving forward

5 = Ready to write the book on GOSY



## Today's discussion

- This is a conversation so please join in
- What does a successful GOSY project look like
- Policies / Facilities / Programming
- Top down vs. bottom up approach
- Lessons learned



## Setting the stage....

- Why do this work?
- For me, it all started with this young man



What does equitable and accessible play, learning and wellness look like

## Setting the stage....

### **Policy**

#### **Facilities**

#### **Programs**

- Federal laws/guidelines
- State wide
- Local codes
- District guidelines

- Landscape
- Habitat
- Gathering
- Seating
- Learning features

- Ties to curricula
- School goals
- Recess
- After school
- Health

#### **TOP DOWN**

Administrative /
Facilities & Bond
Program
Development

#### **GRASSROOTS**

School & Community driven projects (Staff, students, PTA/O, community)

#### **GUIDING PRINCIPLES**

#### Personalized Learning

A flexible design that can be modified, allowing students to design (and re-design) their environment

### Equity and Inclusion

A welcoming, open school that can accommodate the different needs of students and staff

### Sustainability and Resiliency

A building that inspires connections to nature and allows access to the outdoors; a design that reflects natural systems and can adapt to future changes

#### Safety and Security

A home that supports our Wy'east family; a school where kids feel comfortable and safe so they can focus on learning

#### Community Partnership

An exploratory learning environment that encourages real-world connections

#### Fiscal Responsibility

A simple, durable school where every space is designed to be a place to learn; the form of the school follows this function

#### **TOP DOWN**

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#### **GRASSROOTS**

School & Community driven projects (Staff, students, PTA/O, community)

#### **The District**



- 5 High schools
- 6 Middle schools
- 21 Elementary schools
- 5 Other facilities
- 22,000 Students
- 3,300 Staff
- 58 Property sq. miles



Policy -

#### **BOND 2017**

- 11 Remodel / expansion projects
- 7 Replacement schools
- 3 New schools
- 8 Upgrades & improvements

5 - Schools replaced serving students with 65+% Free & Reduced Lunch

#### **Green schoolyards**

A new approach to school design

VPS implemented new design standards to enhance play, wellness and learning throughout the entire campus

- Strive to meet OSPI <u>Washington</u> <u>Sustainable Schools Protocol</u>
- New features for outdoor learning
- Diverse, inclusive & accessible play elements
- Additional features for student & community wellness

#### **Design team:**

Administration
Architect
Engineer
Landscape architect
Playground designer
Teachers/staff

New: GOSY specialist

#### Benefits of Green Schoolyards

Supporting the various needs of students, staff and community members

- Provide hands-on / project based learning experiences
- · Real-world examples for all curricula
- · Decrease stress, quiet spaces for rest
- · Reduce behavorial problems
- Increase shade for respite and cooler grounds, reduce heat island
- Increase stewardship and conservation opportunities
- Increase social-emotional learning opportunities
- Improve ecological health of schools
- .....and so much more

#### **TOP DOWN**

Administrative /
Facilities & Bond
Program
Development

GRASSROOTS
School &
Community driven
projects (Staff,
students, PTA/O,
community)

Design
team:
PTA / PTO
One enthusiastic
teacher
Parent volunteer
Community
donation
Students / class

New: GOSY specialist



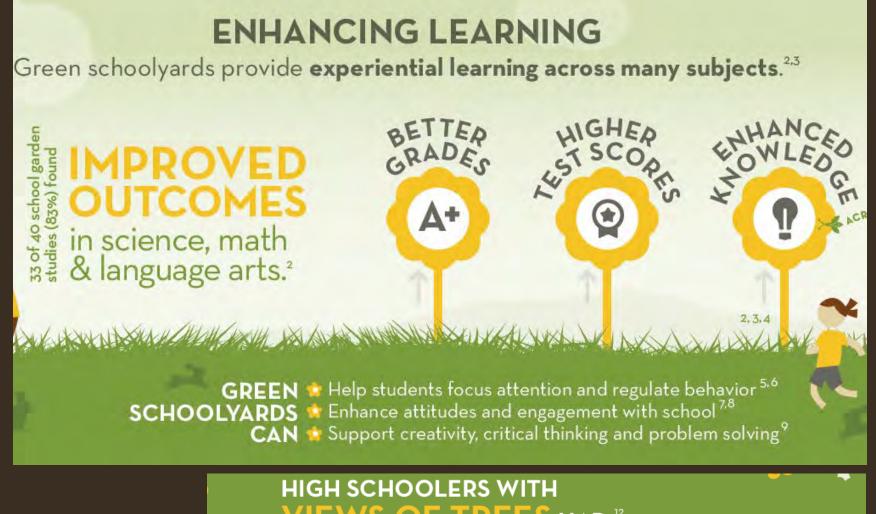
If I haven't convinced you yet.....

#### Children & Nature Network

childrenandnature.org/ schools/

#### Green Schoolyards America

greenschoolyards.org/ covid-learn-outside/



### VIEWS OF TREES HAD:12



HIGHER standardized test scores



**HIGHER** graduation rates



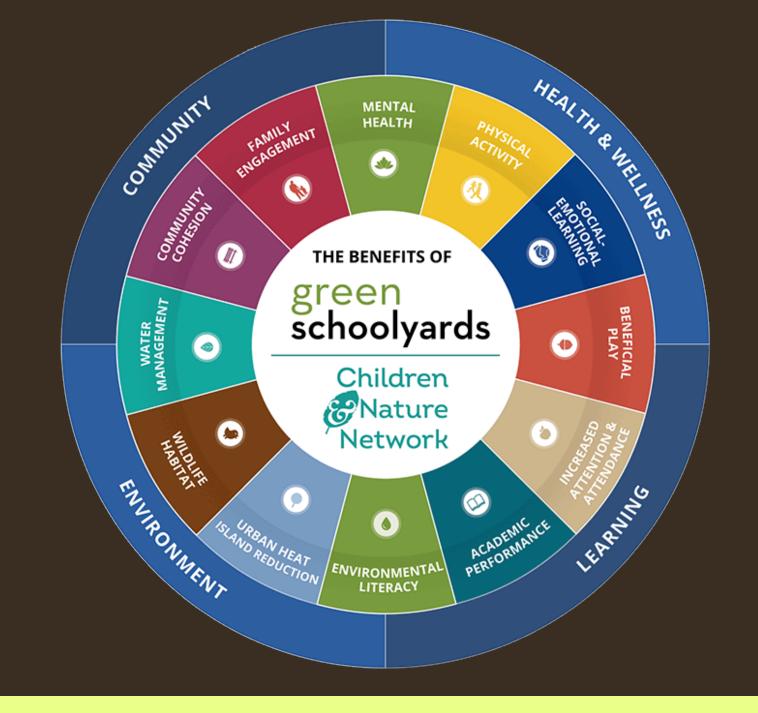
% of students planning to attend a 4-yr college What can these projects do for ....

EQUITY / INCLUSION

SAFE / WELCOMING

CLIMATE ACTION

COMMUNITY ENGAGEMENT



## Where to start....

What do you notice about this school campus?

1. FACILITIES



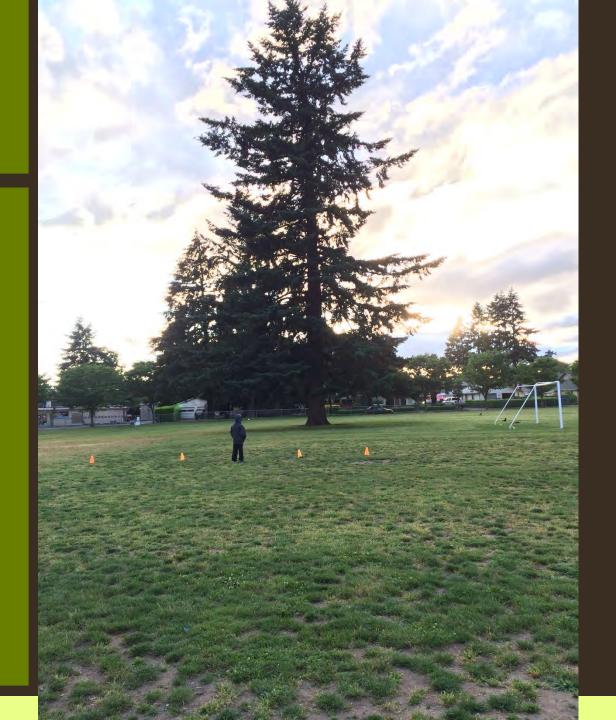
These students live right next to I-5, ½ mile from school, 1 mile to a park



## Where to start....

What do you notice about this school campus

2. PROGRAM



Staff determining where kids can go on the school grounds for safety

## Where to start

Maximize use of the entire campus

2015 – 1.5 ac

Today – 3.6 ac (including all of the trees!)

Program: 12 min. recess





## Where to start....

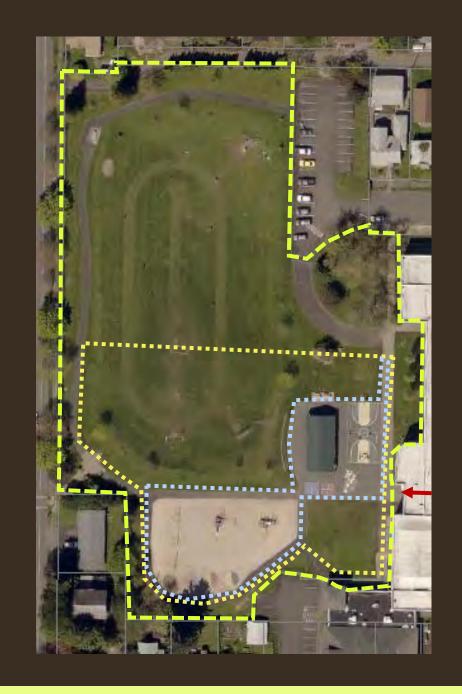
Under utilized spaces

Poor drainage

Limited staffing for safety

Not much to do

Inaccessible features



Hough ES -

3 acre campus

In 2012 recess is 1.5 ac = 522 sf / kid

When it rains = 250sf / kid or 112sf / kid

Program:

20 + 2x @10 min

## What are the big Q's?

So you want to start a Green Schoolyard project....

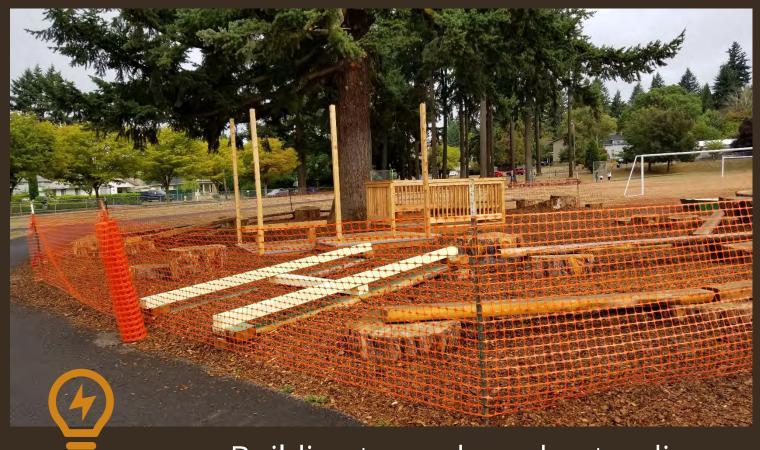
## What are the barriers and concerns that you hear when starting GOSY project?

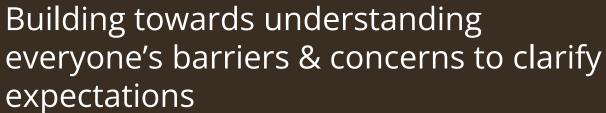


## What are the big Q's?

So you want to start a Green Schoolyard project....

## What does a successful GOSY project look to you and your community?





#### **TOP DOWN**

Administrative / Facilities & Bond Program Development

#### **GRASSROOTS**

School & Community driven projects (Staff, students, PTA/O, community)

Superintendent **Facilities Planning** Grounds Risk/Liability

**Architects Planners** Engineers Landscape Architects



Administration



**School** 

Therapists Counselors

**Specialists** 



PTA/O **Resource Center** Businesses **Env. Educators Families** 

Faith Based Scouts Neighborhoods Government

Community



COMMON LANGUAGE FOR EXPECTATIONS





Make site successful for all users

Take the "no" out of playground use

Inspire students to be inspired to seek answers











Inventory campus

Interview stakeholders

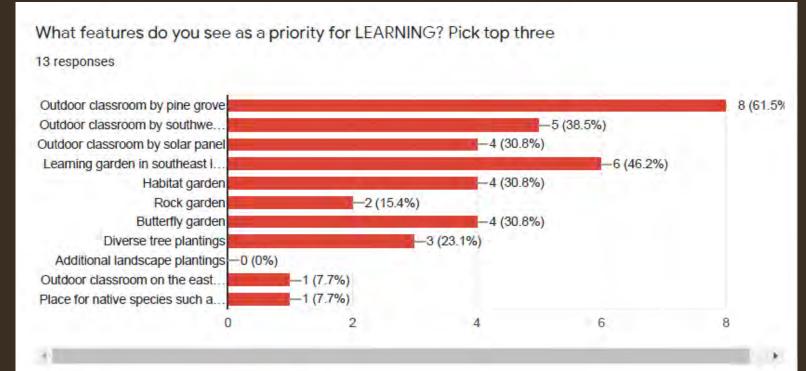
Understand District do/don't

What is working & what is not

Tie to school goals







These will always be on the top of the list....

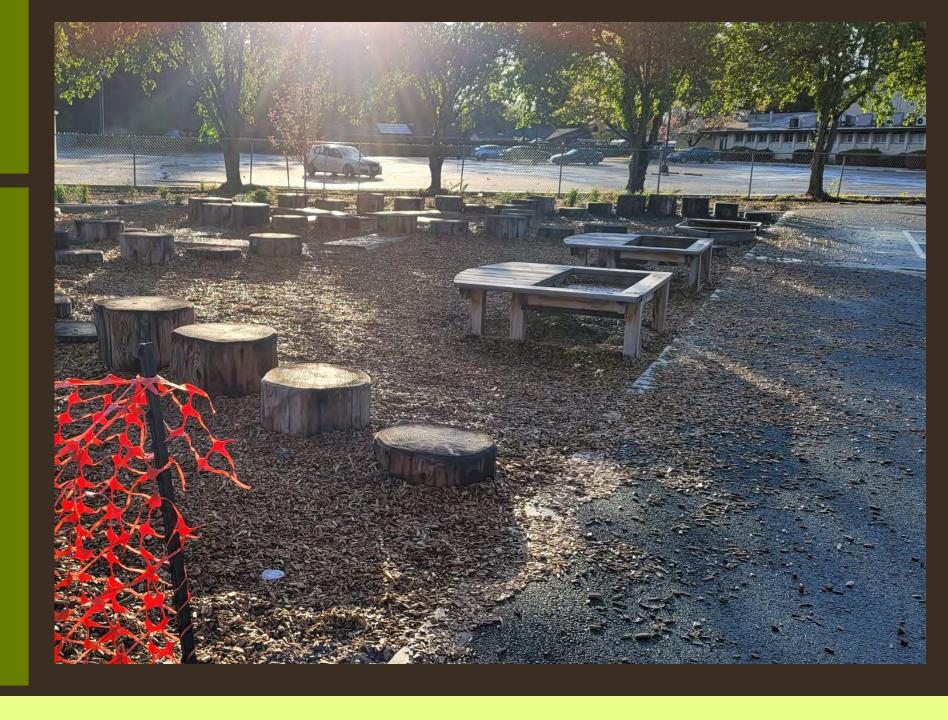
Safety

Security

Risk / Liability

Maintenance

(& FUN!!!!)



#### ZONES

**Pathways** 

Gathering / Seating

**Active Play** 

Passive Play

**Quiet Play** 

Learning



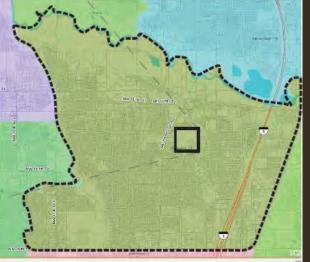
#### VPS SACAJAWEA ELEMENTARY - SKYHAWKS • The Sacajawea ES campus is a total of 11.23 acres

- · The campus has:
- 4.5 ac. of grass / lawn
- 1 ac. of pavement play areas, basketball & playgrounds
- 1/4 mile paved walking loop
- Courtyard outdoor learning garden
- Solar panel array
- The schools serves K-5th grades with approximately
- · The school is located in the Suds Creek subwatershed of the Salmon Creek Watershed

#### ZONES OF PLAY

- A. Pavement Play
- B. Covered Play / Active Ball Sports
- C. Swings
- D. Playground Structures
- E. Field sports
- F. Lawn sports fields with backstops

#### SCHOOL BOUNDARY



### DESIGN COMPONENTS

#### PATHWAYS

Large Loop HS & MS – ¼ mile ES – 1/6-1/5 mile

Short Loops Walk-a-bouts

Links to destinations







## DESIGN COMPONENTS

## GATHERING / SEATING

Large group

Small working groups

Conversation spots

Coverings

Event spaces













### DESIGN COMPONENTS

PLAY

Active

Passive

Quiet







#### DESIGN COMPONENTS

### LEARNING

Hands-on

Interactive

Engaging

Places to explore, discover & inspire



## DESIGN COMPONENTS

### **GARDENS**

Butterfly
Raised gardens
Flowers
Sensory

Art
Herbs
Stormwa<u>ter</u>

Meadows

Rock cycle













## DESIGN COMPONENTS

## Outdoor learning

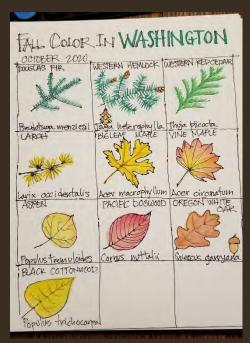
**Support learning** 

Educational Signage

Interpretation

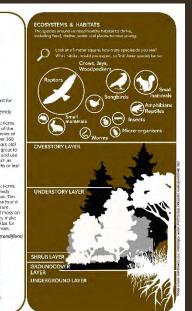
Programming

Special projects



FELIDA ELEMENTARY SCHOOL
NATIVE PLANT GARDEN









### DESIGN COMPONENTS

## Outdoor learning

Incorporating art by students and community



#### DESIGN COMPONENTS

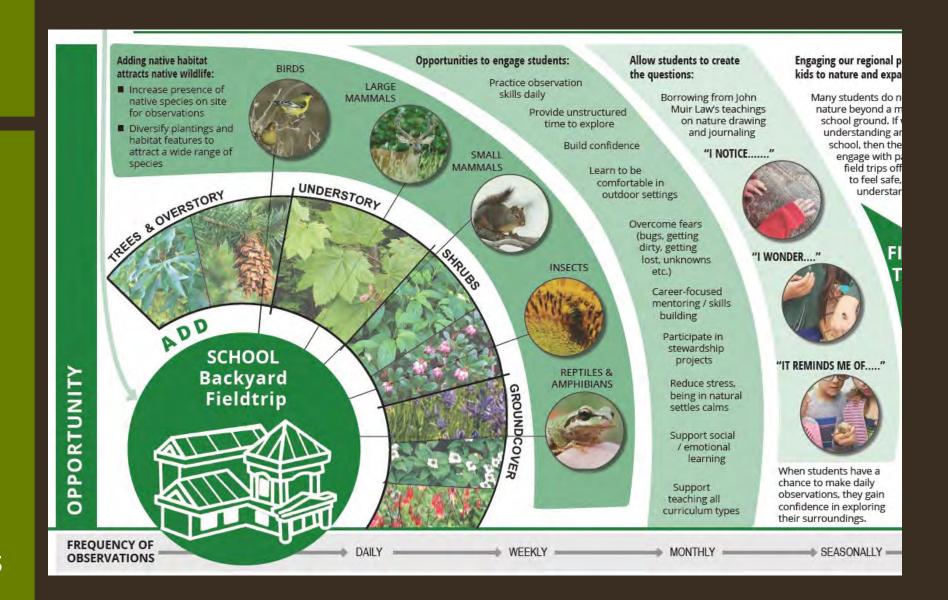
Outdoor learning

Get kids outside

Every day

Every season

Support their comfort and knowledge exploring outdoors



### Vancouver Public Schools

Hough ES
Harney ES
King ES
Ogden ES
Truman ES
Tangeman Center
Walnut Grove ES
VITA ES
Ruth Bader Ginsburg ES







## Evergreen Public Schools

Campus Update Plans
Bond Program
Emerald ES
Sifton ES
Image ES
Marrion ES
Ellsworth ES
Burton ES
Mill Plain ES









### Evergreen Public Schools

Campus Update Plans
Bond Program
Emerald ES
Sifton ES
Image ES
Marrion ES
Ellsworth ES
Burton ES
Mill Plain ES



### Campus Update Plans

- Support future bond program priorities
- Used for fundraising
- Garner community donations



Figure 5. Pioneer ES campus - proposed updates

#### NOTES

- See next several pages for more detailed information about all of the proposed features.
- All feature locations are proposed and can be adapted over time to meeting changing needs.
- Summary of new improvements, includes:
- Outdoor gathering areas -
- Six (6) new areas for outdoor learning destinations including an amphitheater, work table stations, maker space, garden learning spaces, nature/habitat areas
- Learning habitats lots of new trees, habitat landscape and specialty gardens offer places to plant native and wildlife friendly plantings while offering beauty, features to support curriculum, shade and peaceful settings, while adding over 1 acre of shade.
- Diversifying play elements- new features for play include music stations, climbing elements, new pavement play/games, wall ball, nature play log hoppers, imagination play, swings and covered play options to support play by kids and families of all abilities.
- Wellness features new pathway loops and connections increase accessible use throughout campus. Other pathways create loops for short walkabouts and access to destinations, such as a new amphitheater and the City's natural area for walking field trips

## Other districts are stepping up

Ridgefield ES – new View Ridge MS has wetlands

Battle Ground PS – adding gardens

Camas Schools — adding outdoor classrooms and nature play at ES









## Addressing MS and HS

- On site habitat
- Greenhouses
- Skills training
- Mentoring of younger students
- Community service partnerships





#### **Stretch break!**

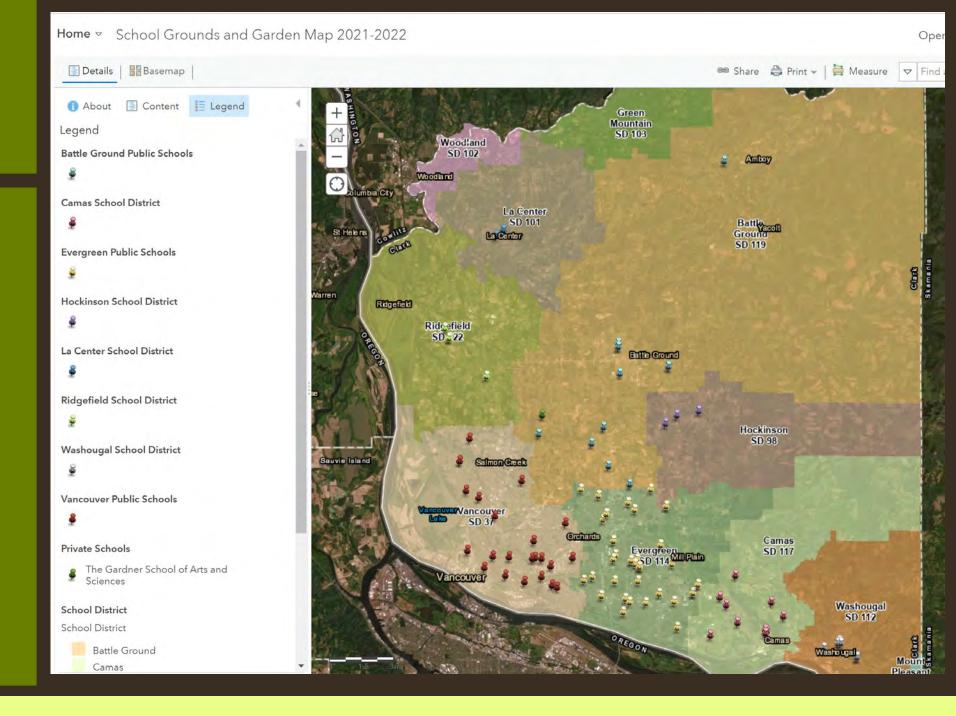
What other FACILTIES / CAPITAL features has your district used to engage students and communities

## Trivia question: How many national parks are there in the U.S.?



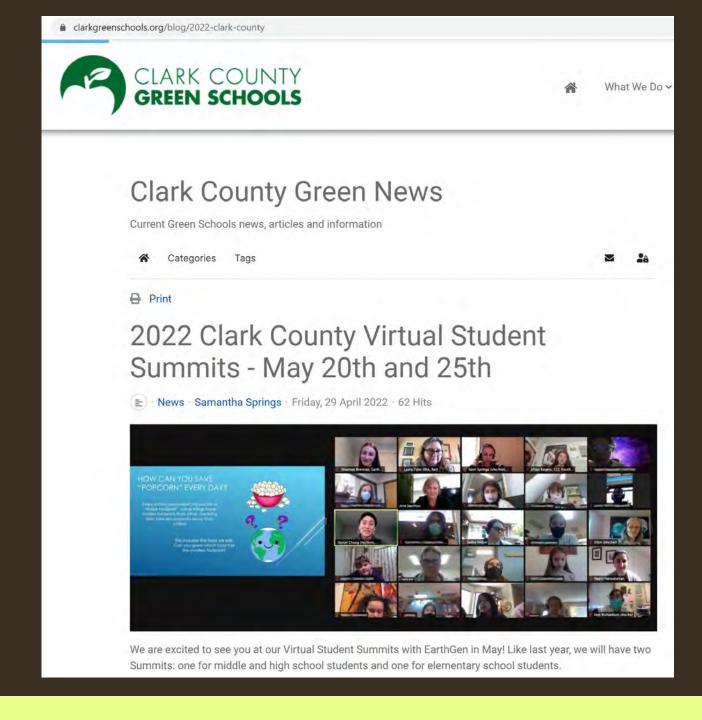
# How to activate the spaces

Clark County
Green Schools
Inventory



How to activate the spaces

**Green Teams** 



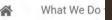
How to activate the spaces

Teacher training

CCGS is a program of our County's Public Health Department but purposefully does NOT look like a government web page



clarkgreenschools.org/blog/join-us-for-the-winter-educator-training-feb-3



### Join us for the Clark County Virtual Winter Educator Training - Feb. 3

News - Samantha Springs - Wednesday, 22 December 2021 - 199 Hits

The Clark County Green Schools team and EarthGen are looking forward to seeing you at our Virtual Winter Educator Training on Thursday, February 3rd from 4-5:30pm. At this training, you will connect with other educators from around the county and receive the tools and resources you need to complete your certification projects. Plus, you'll learn about a new certification category we are super excited about!

Register for the training HERE. Please contact Shannon Brennan at shannon@earthgenwa.org with any questions about the training.

We can't wait to see you there!



# How to activate the spaces

Celebrating successes





#### 2021 Green Apple Award Winner

This award is presented to an individual that works in schools and inspires students to learn about the environment and to practice sustainability at school and at home.

Nancy, an employee at Lacamas Lake Elementary School, engages students and motivates them to compost, recycle and conserve energy at school, instilling an enthusiasm for school involvement and for the environment.





How to activate the spaces

Lower Columbia Nature Network partners Partners provide spaces to wander, programs to engage and activities to inspire. Visit their web sites for more information.





































#### How to activate the spaces

#### Lower Columbia Nature Network partners

#### Learn how our partners can help meet your curricula goals:



#### Visit our sites

These partners have facilities for your students to visit for hands-on learning:

CASEE Center - Classrooms, greenhouses, arboretum, pond, creek, forests and trails

Clty of Vancouver's Water Resources Education Center - Interpretive center, environmental education classrooms, wetlands, outdoor classroom, native gardens and Columbia River Trail

Columbia Springs - fish hatchery, trails and environmental education classrooms

U.S. Fish & Wildlife Service Refuges - Ridgefield and Steigerwald Lake Refuges offer trails, interpretive features and guided trips



#### Take a field trip

Join these partners for fields for hands-on learning and stewardship opportunities:

City of Vancouver Parks - Visit one of the many local and community parks and trails, including Volunteer opportunities

Clark County Parks - Visit one of our many sites for learning, play or stewardship with the Volunteer program

Clark Public Utilities Stream Team - Trip opportunities for stewardship plantings, potting plants and environmental education

Lower Columbia Estuary Partnership - Trip opportunities vary for hikes around Vancouver Lake to stewardship plantings along our



#### In the classroom

Educators visit your classroom to share expertise on a wide range of outdoor topics:

City of Vancouver's Water Resources Education Center - Student watershed monitoring network program and curriculum

Clark County Clean Water Program - Learn about stormwater protection, watersheds and environmental protections

Clark County Green Schools - Several resources to support Green Teams, environmental storytelling, composting and school gardens

Columbia Springs - Salmon in the classroom program and curriculum

Lower Columbia Estuary Partnership - A variety

## How to activate the spaces

Lower Columbia Nature Network partners



#### Borrow a lesson kit

Our educators have put together lesson kits on a variety of topics to help students learn science:

Clark County Clean Water - The Enviroscape watershed model is an interactive tool for water movement and quality, student activities sheets

Fort Vancouver Regional Library - Discover Washington backpack kits field with field guides, binoculars and adventure gear

Lower Columbia Estuary Partnership - Kits on watersheds, streams, wildlife and schoolyard scavenger hunts

U.S. Fish & Wildlife Service - Kits that teach about wildlife and conservation

Vancouver Audubon Society - Kits help teach about birds, habitat and nature.

WSU Extension Master Gardeners - Learn about soils, gardens, food and insects with interactive kits



#### School grounds & garden

Partners can help support the planning, design, installation and programming of school grounds and garden projects:

**City of Vancouver Urban Forestry** - Learn about tree planting opportunities on school campuses and at community events

Clark Green Schools - A list of resources and events to help schools add more green to school grounds

Watershed Alliance of SW WA - Backyard Habitat Certification program, technical assistance to review site to restore school grounds with native plants and habitats

WSU Extension Master Gardeners - Trained volunteers support curriculum in the classroom and gardens at schools

Plant Lists & Ideas - there are numerous resources to help with plant lists, including Green Schoolyards PNW Plants (including types of gardens), WA Native Plants, and Portland Nursery Native Plants.



#### LCNN School support

LCNN is working to build a network of schools for peer to peer networking and support:

**School garden tours** - In partnership with WSU Extension Master Gardeners, tour local school gardens for tips and ideas for school gardens

Peer Quarterly Workshops- Join school garden teachers and community for focused meetings to support on-site improvement ideas, curricula and programming

School garden stewardship support - LCNN partners support volunteer stewardship events seasonally to support gardens (post-COVID restrictions)

**Student mentoring & internships** - Partners work with schools for community service and CTE projects, including volunteering, skills building and project implementation





#### Take your teaching outside

The LCNN Partners can help you learn how to create inspiring spaces that encourage discovery and wonder, as well as how to successfully build outdoor learning opportunities



#### Webinars, Workshops, Trainings

Learn with our regional Partners on how to teach outside, plan and implement your campus improvements:

Connecting to Curriculum - teaching outdoors (with Mark Watrin and Kris Potter, Battle Ground Schools

Greening of Schoolyards - planning and implementing improvements (with Jane Tesner Kleiner, Lower Columbia Nature Network)

Composting on Campus - learn about composting options and techniques (with Pete Dubois, Clark County Public Health)

Ecosystems on Campus - learn from



#### Curriculum Resources

There are local, regional, state and national resources to help teach outside, including social-emotional, STEM and more:

WA OSPI - outdoor learning resources

E3 Washington - resources for environmental and outdoor learning

#### Lower Columbia School Gardens - The

LCSG has successful gardens throughout Longview and Kelso schools. Resources include Growing Guides and Lesson Plans

WSU Extension Master Gardeners - school planning and garden lesson plan resources

An Educator's Guide to Vegetable Gardening - Oregon State University Extension brochure



#### School Garden Tours

Learn from other schools in our community with their on-site garden tours:

Clark County Green Schools - School Garden map

EPS Illahee Elementary learning garden

**VPS Hazel Dell Elementary learning** gardens

**EPS Frontier Middle School Greenhouse** and gardens



#### Funding & Grants

There are a variety of local, regional and national partners that can help support your

Local (Vancouver, Clark County, SW WA):

#### City of Vancouver Urban Forestry -

depending on your location, support with tree plantings

Master Gardener Foundation of Clark

County - Horticultural education and school gardens

#### Vancouver Watershed Alliance

Sustainability Grants - City of Vancouver, neighborhood supported

WSU Extension - School garden resources she and funding information



## How to activate the spaces

Lower Columbia Nature Network partners Ecosystems on Campus - learn from
Partners about tips and resources for
increasing habitat on campus and teaching
outdoors (with Jessica George, City of
Vancouver, Urban Forestry; Chris Hathway,
Lower Columbia Estuary Partnership;
Bethany Wray, Watershed Alliance of SW
WA: Kris Potter, River HomeLink)

Maintaining School Gardens - learn tips and techniques to keep your garden successful (with regional teachers)

Rethinking Recess - learning about options for recess and after school programs (with regional teachers)

Drip Irrigation - there are some great resources for installing school garden drip irrigation, including RainBird's Drip Guide, School Garden Support Organization webinar and Drip Guide with University of Arizona School Gardens.

Extension brochure

**Gardens for Learning** - by the California School Garden Network

US Gifford Pinchot Forest Service - lesson resources about the forest, Mt. St. Helen's and other

Columbia Springs - Salmon in the Classroom - teacher activity guides and lessons

Accessible school garden signs - this curriculum walks through the considerations to make signs that work for all abilities and funding information

Regional (SW WA, Vancouver-Portland area, WA state):

Washington Department of Agriculture -

list of garden and school farm grants

Washington Native Plant Society education and planting grants

Clark County Green Schools -

comprehensive list of local, regional, state and federal grants & funding opportunities.

National:

**Kids Gardening** - a national program that supports education through gardening

Whole KIDS Foundation - School Garden grants



# How to activate the spaces

Supporting schools day to day

#### Green Schoolyard Stewardship

#### **School supported:**

- Green Team project
- Recess program
- After school club
- Teacher project
- Class community Service
- Field Day project
- Planting days
- Lady bug day

#### Combo:

- Master Gardeners
- Foundation funded grant garden coordinator
- Master Garden
   Foundation
   supported garden
   coordinator
- Teacher trainings
- Garden tours with stewardship
- CTE Projects

#### **Community supported:**

- Annual volunteer clean up days
- No-spray school commitment (3 clean up days / year)
- Volunteer group (Young Marines, HS Key Club, local business)
- City / County partnerships (i.e. tree plantings/ naturescape) to meet City Climate Action goals
- Partner with local nurseries / plant based orgs

#### How to activate the spaces

- Recess activities
- After school club
- Special projects



#### Love of nature blooms at Hough Elementary School

Horticultural therapist aids students' growing curiosity in environment

By Jerzy Shedlock, Columbian Breaking News Reporter Published: October 17, 2018, 6:05am















3-year grant from Master Gardener Foundation for SGC











#### **Programs**

4-H Youth Development Program - Clark County

Food Safety & Nutrition

#### Horticulture

Small Farms & Agricultural Businesses

#### Master Gardeners

Overview

Become a Master Gardener

#### Community Education

Partners

Support Us

Natural Resources

Heritage Farm

Program Impacts

Volunteer Opportunities

Heritage Farm Community Gardens

Contact Us

Clark County - co.gov 7

WSU Publications 7









#### School Garden Coordinator Resources

#### Master Gardener Program

CAHNRS | EXTENSION | CLARK COUNTY

Erika Johnson, Program Coordinator erika.d.johnson@wsu.edu

(564) 397-5738



A School Garden is an outdoor classroom; a living laboratory where children plant, care for and harvest seeds and knowledge. It can be public or private, one single raised bed or many.

Benefits of School Gardens

Getting Started

Design the Garden

Funding

Sustaining Your Garden

Garden Lessons and Activities

Hazel Dell School & Community Garden News & Events

How to activate the spaces

What other programs are you using to activate spaces?

# Cities Connecting Children to Nature 2021 Cohort

#### Partnering with Vancouver

8. That the City will support the development of climate leaders within the community by fostering opportunities for young people and people from frontline communities to guide the equitable implementation of the CAP, and to propose, shape, and implement new climate change solutions of their own; - Draft Climate Priority Resolution (to be presented at Council on May 16th, 2022)

Climate Action Plan – GOSY

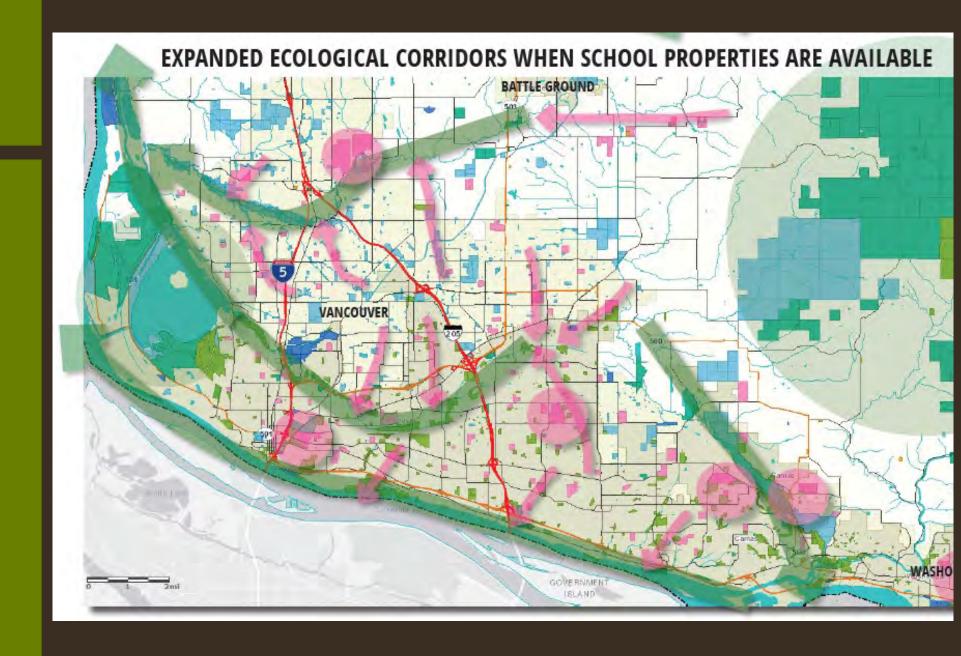
CLIMATE ACTION

Tree equity

Wildlife habitat

Nearby nature

Green Infrastructure



#### School Improvement

## Project approvals

#### **BUILDING IMPROVEMENT REQUEST**

#### **VOLUNTEER CAMPUS IMPROVEMENTS**

#### **OVERVIEW**

Evergreen Public Schools (EPS) support volunteer lead projects that enhances the play, learning and wellness of the school community. EPS Facilities and Grounds will review and approve projects for each school. The following is a list of acceptable project types. Volunteers must review the parameters as outlined per the item and submit for Principal approval. The Principal will then submit the project through the EPS Building Improvement Request (BIR) internal process.

#### **INDEX OF PROJECT TYPES**

Pathways & Connectors 2	Gardens & Raised Boxes15
Pavement Play 3	Butterfly Garden16
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Sensory Play Features 6	Habitat Garden19
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Music Equipment & Stations 8	Art & Signage2
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Seating10	Imagination Play Features23
Work Tables & Spaces11	Loose Materials Play Spaces24
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Stormwater feature13	Campus Care & Stewardship26
Learning features 14	

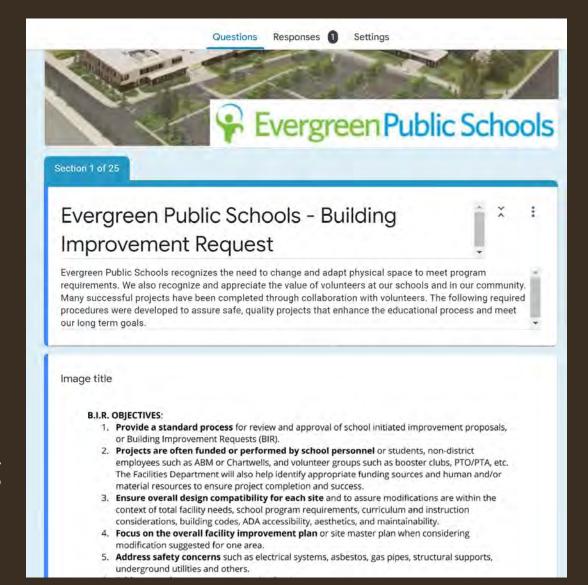
School Improvement

Project approvals –

Define process and create efficient review process Using Google forms for project applications –

Allows the applicant to pull together information to expedite approvals

Linked to tracking spreadsheet and form/doc



#### Messaging

Get the word out about GOSY projects that are in the grounds

Celebrate projects

#### **GREEN SCHOOLYARDS**

In partnership with Vancouver Public Schools



#### · All schools:

- Rubberized play surfacing
- Upgrades:
  - Hough fully accessible playground structures
  - Sacajawea new covered play
  - Kiggins Bowl updates

#### **Diverse Play**

Accessible routes New & fun features Active & challenging structures Passive hands-on play Quiet play & seating

- New schools:
  - Fully supported swings
  - Biggo disc swings
  - Music stations
  - Accessible ramps
  - Sensory digging boxes
  - Nature play logs
  - Paved loop paths
  - o Covered play / ball sports









#### **Enhanced Outdoor Learning**



Outdoor classrooms Various seating Learning features Interpretive signage More habitat plantings Accessible routes

- · New schools:
  - Seating areas for full classes
  - Seating areas for small working groups
  - Raised garden boxes
  - Butterfly gardens
  - Native habitat gardens
  - Diverse tree plantings
  - Sensory gardens
  - Support materials for outdoor learning (carts, tools, equipment)
  - Rock gardens
  - Unique learning features









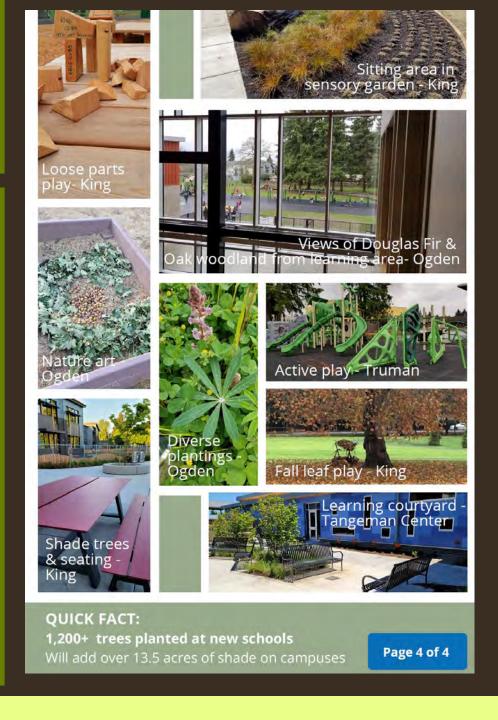




Messaging

Get the word out about GOSY projects that are in the grounds

Celebrate projects



Lots of great momentum in the past 10 years.....

Keep the momentum building and growing!

## Changing perspectives....

Look for opportunities to add natural elements to explore & discover

Work with community partners

Involve students to plan, design, build and maintain their school's backyard

#### What do you see?



# GREENING of SCHOOLYARDS

Thank you for your time today!



Vancouver, WA www.natureplaydesigns.com natureplaydesigns@gmail.com









