



# **Rolling Hills Public Charter School**

**- Environmental Literacy & Living Classroom Initiative (ELLCI)**



# ELLCI Presentation

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## Why should Rolling Hills develop an environmental education program?

- Specified in our charter as one of our innovative features
- Outdoor activities allow students another opportunity to experience science as a relevant, hands-on aspect of their daily lives
- Relevant, meaningful national and local topic
- Extensive community resources for support
- Helps to build a unique identity for our school and sets us apart from other Harbor schools
- Research shows this is an effective vehicle for teaching



# What the research\* says ...

- Environmental education (EE) holds great promise for improving the quality of learning in America's classrooms
- A nationwide study found that EE raises standardized test scores (across all subjects) and reduces discipline and classroom management problems
- Teachers report increased engagement and enthusiasm for learning; and greater pride and ownership in accomplishments
- EE can help produce motivated students, high performing lifelong learners, effective future workers and problem-solvers, thoughtful community leaders and individuals who care about the people, creatures and places that surround them
- EE enhances critical thinking, problem-solving, and effective decision-making skills and teaches individuals to weigh various sides of environmental issues to make informed and responsible decisions

\* Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning (Lieberman & Hoody)



## Rolling Hills charter text:

*“Environmental Education.* Rolling Hills Public Charter School emphasizes responsibility for the health of our cities and our planet. Learners will participate in hands-on projects intended to form an awareness of the critical relationships between the built and natural environments. Learners will study and debate real-life issues such as coping with diminishing resources. Consistent participation in community projects will show learners how they can affect the future quality of our cities and health of our green spaces.”

*ELLCI is designed to connect students with the natural world and our surrounding communities. The plan is a framework to guide our school in integrating place-based and service learning that is supported by community partners and will ensure that all students graduate as environmentally-literate citizens.*



## What ELLCI means ...

- Using the incredible resources of the Boise Foothills, the Boise River Valley and our “living” classroom as a medium for learning
- Weaving environmental education opportunities into the core curriculum where appropriate
- Partnering with local businesses and organizations to provide additional learning experiences
- Providing an opportunity for parents, students and faculty to work together to build this unique program and learning environment.

**This is not about advocating a particular viewpoint or course of action, it's about using the environment as a medium for learning!**



## Vision

To create a generation of environmentally literate young men and women that possess the awareness, attitudes, knowledge, skills and motivation needed to address complex, multifaceted problems

## Mission

To provide our students with multiple experiences that impart the knowledge and skills necessary to engage in problem solving, to take action to sustain and improve the environment and to analyze real-life issues that affect Idaho and our surrounding communities



# The three pillars of ELLCI:

(Environmental Literacy & Living Classroom Initiative)

- Rolling Hills “Living” Classroom
- Community Connections
- Outdoor Learning Expeditions



## Rolling Hills “Living” Classroom

- Raised planting areas for each grade level
- Shaded outdoor meeting area for classes and labs
- Permanent greenhouse(s)
- Compost area
- Pond area
- Weather station



## Community Connections

- Bringing in local resources/speakers for learning enrichment
- Partnering with local businesses who share our passion for education and can assist with in-kind goods/services
- Identifying service learning projects with an emphasis on environmental stewardship to fulfill community needs

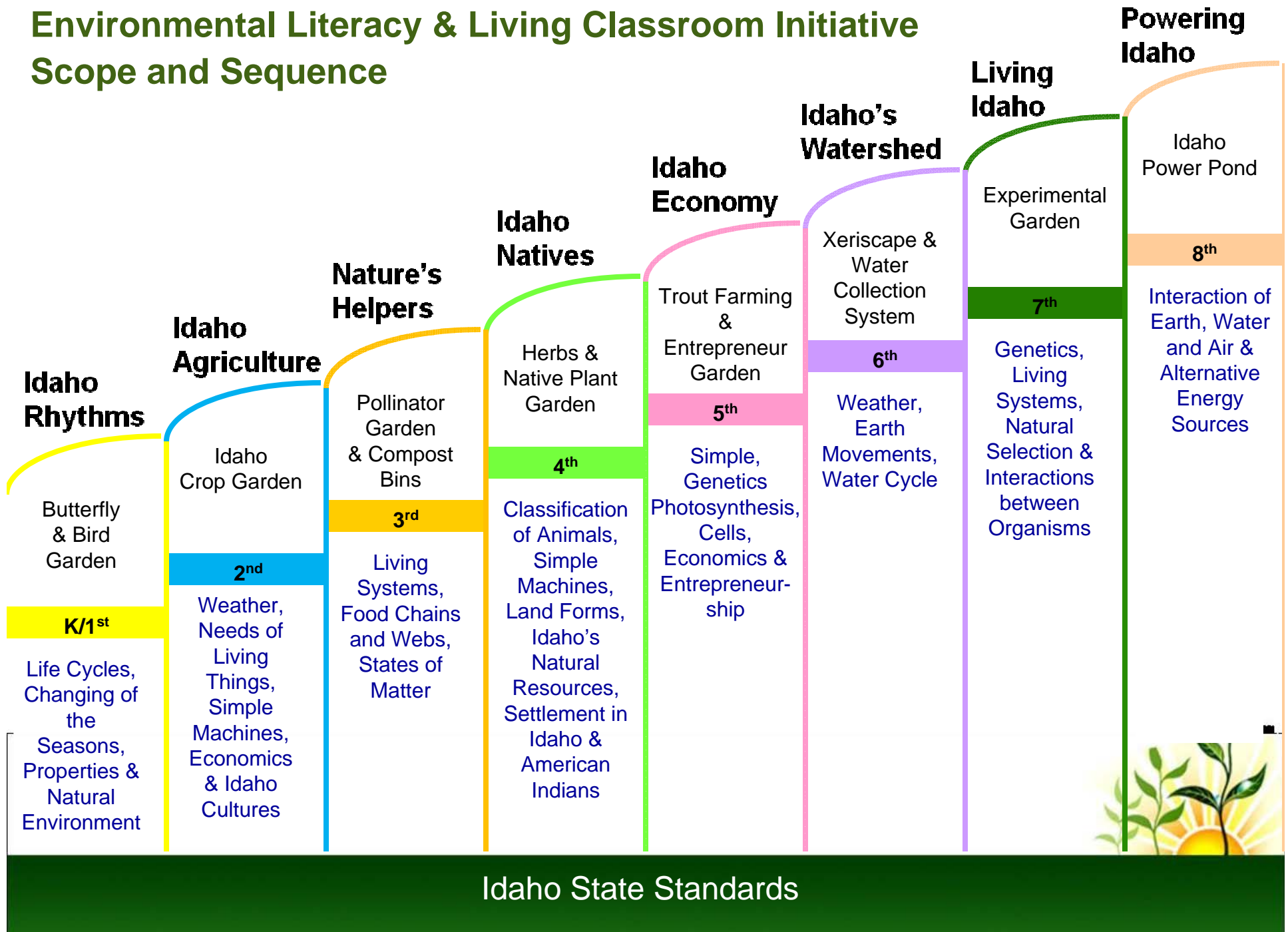


# Outdoor Learning Expeditions

- Attending local programs that correlate with our mission (all grades)
- Attending extended science programs such as MOSS, Teton Outdoor School, and OMSI (middle school)
- Participating in relevant “field” work in the local community

# Environmental Literacy & Living Classroom Initiative

## Scope and Sequence





# K/1<sup>st</sup> grade theme: Idaho Rhythms

(changing and renewing)

- **“Living” Classroom – Butterfly & Bird Garden**
  - Activities that allow students to use their senses to explore and learn about the natural and built environment.
  - Study land features and attributes of local area (foothills, rivers and dams, desert climate etc.) and how humans and the environment are intertwined.
  - Life cycles of plants, insects, Idaho birds (eggs and nests), seasons
  - Idaho wildflowers
- **Community Connections**
  - Idaho Fish and Game – Wildlife Express for Early Learners
- **Outdoor Learning Expeditions**
  - Foothills Learning Center (foothills programs – animals, camouflage)
  - Idaho Botanical Gardens (Ready, Set Grow)
  - Zoo Boise (Deserts program)
  - MK Nature Center (Five Senses)



## 2<sup>nd</sup> grade theme: Idaho Agriculture

- **“Living” Classroom – Idaho Crop Garden**
  - Idaho crops; what crops are well suited for our climate:
  - Animal farming in Idaho
  - Seeds and seed dispersal
  - Weather and how it relates to the types of crops grown in Idaho
  - Health and nutrition from the garden
- **Community Connections**
  - Basque culture, sheep herding and wool harvest
  - Local farms and local food movement
  - Future Farmers of America
  - Idaho Ag in the Classroom program
  - Junior Achievement Idaho: Community
- **Outdoor Learning Expeditions**
  - Idaho Botanical Gardens (Seed Sense)
  - Visit local animal farm and crop farm



## 3<sup>rd</sup> grade theme: Nature's Helpers

- **“Living” Classroom – Pollinator Garden & Composting**
  - Waste management; reduce, reuse, recycle; landfills; how much waste does our school produce? Identify and implement ways to recycle;
  - Composting; “nature’s recyclers” – WORMS!
  - Pollinators (bees, butterflies)
  - Conservation
- **Community Connections**
  - Treasure Valley Beekeepers Club
  - Idaho Power (The Power to Make a Difference)
- **Outdoor Learning Expeditions**
  - Idaho Botanical Gardens (Flower Power)
  - Foothills Learning Center (composting/recycling)
  - MK Nature Center (It’s a Worm’s World)
  - Ada County Solid Waste Management – landfill tour



# 4<sup>th</sup> grade theme: Idaho Natives

(to correspond with Idaho History)

- **“Living” Classroom – Herbs & Native Plant Garden**
  - Native organisms – birds of prey, song birds
  - Study of native plants and medicinal herbs Idaho settlers used for daily living
- **Community Connections**
  - Idaho Native Plant Society
  - BLM – The Raptor Box
  - Idaho Museum of Natural History (Cordage Discovery Box)
  - BSU / NSF Fellows – Danielle Clay, botanist
  - CSR, Idaho (Conservation Seeding and Restoration, Inc)
  - Idaho Power – Project Fins (Salmon, Steelhead, Lewis & Clark)
- **Outdoor Learning Expeditions**
  - Oregon Trail Museum and Farewell Bend State Park in conjunction with Wagon’s Ho! program
  - Idaho Botanical Gardens (Louis & Clark Tour)
  - Birds of Prey
  - Boise Foothills Learning Center (birds)



## 5<sup>th</sup> grade theme: Idaho Economy

- **“Living” Classroom – Trout Farming & Entrepreneur Garden**
  - Study of economics/entrepreneurship – lead students in understanding all aspects of commerce using plants as a commodity (proceeds will contribute to ELLCI funding)
  - Salmon; study all aspects of salmon and how it affects Idaho’s economy
  - Idaho mining and ranching
  - Logging; study forest types and identify different types of wood for their different qualities
  - Trout in the classroom program
- **Community Connections**
  - Participate in annual Salmon and Trout Days activities
  - Idaho Forest Products Commission
  - Junior Achievement Idaho: More Than Money
- **Outdoor Learning Expeditions**
  - Boise Community Forestry – tree planting
  - MK Nature Center
  - Lucky Peak Nursery Tour (April - June)
  - U of I Parma Research and Extension Center (participate in studies/trials that assist local growers)
  - Idaho Fish and Game – fishing field trip (MK Nature Center has poles for classes);



# 6<sup>th</sup> grade theme: Idaho's Watershed

(Middle School – Study of environmental issues specific to Idaho )

- **“Living” Classroom – Xeriscape Garden & Water collection System**
  - Study the social, economic and environmental issues associated with Idaho's aquifers; understand water rights and how they are acquired and managed
  - Aquatic ecosystems such as inland waterways, riparian areas, and freshwater wetlands
  - Erosion control; design a water collection system to reduce erosion and reuse for watering garden; what plantings prevent erosion?
  - Dams; study all aspects of salmon recovery; understand dams, the benefits and unintended consequences
  - Weather; desert climate; how does it affect our watershed; use weather station to monitor weather changes
- **Community Connections**
  - Idaho Museum of Natural History (Water Discovery Box)
  - BSU / NSF Fellows – Brian Anderson, hydrologist
- **Outdoor Learning Expeditions**
  - MK Nature Center (Anadro-WHAT, Class in the Creek)
  - McCall Outdoor Science School or OMSI Watershed Ecology and Fossil Beds Hancock Field Station Outdoor School
  - Bogus Basin SnowSchool
  - Boise WaterShed



# 7<sup>th</sup> grade theme: Living Idaho

(Middle School – Study of environmental issues specific to Idaho )

- **“Living” Classroom – Experimental Garden**
  - Alien species – noxious weeds and their effects on the ecosystem; test various ways to control (organic vs. synthetic)
  - Genetic engineering (food crops)
  - Pest (insect) management
  - Forest ecology
- **Community Connections**
  - NIFC (Wildfire Management)
  - U of I Parma Research and Extension Center (pest management)
  - Boise Community Forestry
  - Idaho Invasive Species Council
  - Idaho Weed Awareness Campaign
  - Zoo Boise (Zoo Science program, Zoo Careers program)
  - Idaho Fish and Game - wolf reintroduction
- **Outdoor Learning Expeditions**
  - BLM Fuels Crew – assess fire risk by sampling moisture content of sagebrush
  - BLM – F.I.R.E. up for summer program
  - Boise Foothills Learning Center (noxious weeds program)
  - Idaho Fish and Game – wolf tagging/monitoring program?
  - Teton Science School



# 8<sup>th</sup> grade theme: Powering Idaho

(Middle School – Study of environmental issues specific to Idaho )

- **“Living” Classroom – Power Pond**
  - Energy sources – understand major sources of energy and emerging technologies; pros and cons of each
  - Hydro, wind, solar, biomass, bio-fuel, geothermal
  - Hydrogen Energy
  - Ocean power – wave and tidal energy
  - Pollution – Idaho air and water quality
- **Community Connections**
  - Idaho Power (Sources of Electricity; Electricity Trunk, The Nature of Water Power Unit)
  - BLM – Learning Landscapes program
  - BSU / NSF Fellows – Brian Deis, microbiologist (bio-fuels)
- **Outdoor Learning Expeditions**
  - Idaho Power (Power Plant Tour – Hells Canyon/Swan Falls)
  - Ada County Renewable Energy Industrial Park
  - Overnight expedition TBD



## Progress so far ...

1. Strong support for ELLCI from school board, principal and staff
2. ELLCI team has developed preliminary education framework and will serve as a resource and central management hub
3. Construction has begun on living classroom area, raised beds are in (thanks to local Eagle Scouts!) and grants have been written for parts of phase II.
4. Additional funding being sought through grant writing and community partners



## Next steps ...

1. Seek out training and professional development opportunities for parents and teachers
2. Recruit parents to serve as 'Environmental Ambassadors' in their child's class
3. Establish local community connections
4. Pursue funding through grant writing and local donations
5. Develop website to communicate ELLCI volunteer opportunities, current needs and program progress
6. Complete Phase II of our "Living Classroom" area



## How you can help ...

- Volunteer to become an “Environmental Ambassador” for your child’s class
- Become certified as a Junior Master Gardener Teacher/Leader (registration required – contact us ASAP if you are interested)  
2 day program: 10/8 from 4:30 – 9:15 and 10/9 from 8:30 – 4:00
- Watch for the launch of the ELLCI website and monitor for current ELLCI needs and volunteer and training opportunities
- Check with your employer to see if they have a Volunteer Incentive Program or Matching Gift Program that might benefit our school
- Join the ELLCI team! The only qualification needed is a passion for the program and a strong desire to make a difference
- Email us (Jill Hettinger/Kathy Pennisi) at [ellci@rhpcs.org](mailto:ellci@rhpcs.org) with suggestions, comments or questions.



**Thank you...**

for working together to make

**Rolling Hills Public  
Charter School**

the best school in the  
Treasure Valley!