

Permaculture Education

Permaculture is an approach to design based on the idea that it is possible to design human systems (agricultural and other) that work with nature rather than against her and that such systems are key to the survival of the human race. In this workshop I will review the basic ideas and principles of permaculture design as they relate to agriculture and natural building. I will focus on teaching permaculture as part of life science and geology courses from a preschool to high school level. Most importantly I will talk about how to use permaculture to design educational programs. Thus, this workshop will be of primary interest to teachers and educational program designers.

Get feel for the audience via circle, show of hands or moving around room [5 minutes]

Teachers, not

Elementary, middle or high school

Personal Wellbeing, Planetary Wellbeing or Physical Science of Energy

Knows what the word permaculture means?

Introduction [5 minutes]

What is permaculture?

Fire w/the air conditioner on

Participants not audience

My goal is to help:

Folks new to permaculture learn something about permaculture

Folks new to teaching in a permaculture way learn something about how to do it

By teaching in a permaculture way

Go through principles (one aspect of permaculture) asking for educated guesses from the participants [15 minutes]

Form into mixed groups (if $30 > N > 10$, 5; if $N > 30$, 10)

Assign Grid rows to groups to come up with examples [5 minutes]

Report out [10 minutes]

Permaculture Principles

Not a taxonomy of mutually exclusive categories

1. Observe and interact
2. Use and value diversity
3. Integrate rather than segregate
4. Apply self-regulation and accept feedback
5. Catch and store energy
6. Creatively use and respond to change
7. Design from patterns to details
8. Obtain a yield
9. Produce no waste
10. Use and value renewable resources and services
11. Use edges and value the marginal
12. Use small and slow solutions

Adapted from Holmgren's *Permaculture: Principles and Pathways Beyond Sustainability*

The Principle	Teaching the Principle	Using the Principle to Teach
Observe and interact		
Use and value diversity – Integrate rather than segregate		
Apply self regulation and accept feedback		
Catch and Store Energy		
Creatively use and respond to change		
Design from patterns to details		
Obtain a yield – Produce no waste		
Use and value renewable resources and services		
Use edges and value the marginal		
Use small and slow solution		

The Principle	Teaching the Principle	Using the Principle to Teach
Observe and interact	Woods walks, gardening, starting fires, signs of (seasons, water flow), looking for poop, looking for homes, where are the elements	Circle, watching for areas of interest
Use and value diversity – Integrate rather than segregate	Building, gardening, fires,	Developing expertise, Jigsaw design teams
Apply self regulation and accept feedback	Monitor home and building water and energy usage	Listen for requests and make them
Catch and Store Energy	Water catchment, placement of materials, building mass as thermal battery	Use student energy to power projects
Creatively use and respond to change	Gardening and cultivating mushrooms	The story of store
Design from patterns to details	Design an energy efficient house to be built from natural materials	This session, our school
Obtain a yield – Produce no waste	Composting, gardening, cooking and eating, used aquarium water, worm bins	Cross age activities – Projects with younger students, self, peers or adults as the consumers.
Use and value renewable resources and services	Responsibly collecting edibles, leaves, wood	Relationship based teaching
Use edges and value the marginal	Edge searches	Relationship based teaching
Use small and slow solution	On contour swales	Spiral, mastery and understanding are not required at each step, build incrementally

