

Date & Time	Min	Schedule	Activity	Learning Outcomes	Materials	Setting & Preparations	Process	Teacher Notes
May, 9th 2:30 - 5:00	150	Session A	<b>Leverage Points Goals &amp; Vision</b>					
	30	A - 1	Vision Introduction	Students will understand the value of crafting visions.  Students will be inspired to stretch their visioning potential.	Projector, whiteboard, Video of William Kamkwamba, Vision caps	Seated in front of the white board. Vision caps on.	Introduce the subject and outline for the lesson: <b>Leverage Points, Goals &amp; Vision</b> - Vision intro - Crafting our vision - Testing & Refining through Sharing - Vision based Goals (Getting from here to there) - Leverage Points (Leveraging the world to make your visions realities).  Much of the what I will be talking about today is based on the work of Donella Meadows. Systems Analyst and Dreamer. Wrote "Envisioning a Sustainable World" and "Leverage Points: Places to intervene in a system"  Show Short Video: William Kamkwamba	TALKING POINTS:  - Visions are not "rational" (Right Brained) - Our "rational" society generally suppresses vision. - sharing visions can bring up all kinds of emotion - fear - embarrassment - grief (for the way the world is)  - You Don't have to be constrained by what society tells you is "realistic". - You don't even have to be restrained by what you know. (show video)  "If we don't know where we want to go, it makes little difference that we make great progress."  "Envisioning is a skill that can be developed."  "We can hardly achieve a desirable, sustainable world, if we can't even picture what it will be like."  - Vision is about stretching the imagination. - Don't worry about how you get there yet. Often the path isn't clear right away. - If your true and honest vision is to live on the moon... describe what that would be like. We'll get to the "how you get there" later.
	55	A - 2	Vision Crafting Exercise (It's a wonderful life)	Students will begin to craft their highest vision.	Vision Caps	Out door space	Go to a quite place with your notebooks and a pen. Sit and take a few deep breaths. Clear your mind and vision yourself in the ideal world... look around you, what do you see? Engage all your sense... what do you hear, smell, taste feel?  Write down your visions. When you hear the gong, finish your thought and return to the circle.	Imagine not just the absence of problems but the presence of blessings.  Describe not the world you think you can achieve, or the world you are willing to settle for, but the world you truly want!  What world do you want for yourself, your children, your family and your community?
	30	A - 3	Testing & Refining through Sharing	Students will begin to manifest their vision by bringing it into the world of spoken word.		Seated in a circle.	Each person shares their vision when they are ready.	One essential tool for making vision responsible is sharing it with others and incorporating their visions. Only shared vision can be responsible.
	0	A - 4	Goals	Students will begin to see how their visions can be translated into actionable goals.  Students will understand ACTION LANGUAGE in relation to making goals tangible.  Students will begin to chart a course toward the actualization of their visions.	Slow and small solutions.	Pair up	Introduce Goals & ACTION LANGUAGE  In pairs, decide who will talk first and who will listen and record. For 5 minutes share three things you can do within the next 3 years to work toward your vision. Listener records and reflects back each goal in ACTION LANGUAGE Switch and repeat.	The vision is your target, goals are the milestones that help you plot your course.  ACTION LANGUAGE - When forming goals its important to frame them into present tense ACTION LANGUAGE.  If your vision is to get to the moon, you might need to first build a rocket.  Normal Goal: Year one: I want to build a trial rocket to test.  ACTION LANGUAGE GOAL: Year one: My first test launch is a success.  ACTION LANGUAGE is present tense and active.
	35	A - 5	Leverage Points	Students will have a firm grasp on how they can make their vision of the ideal life a reality through the use of leverage points.	White board		Introduce Donella Meadows' Leverage Points and the concept.  Brief intro to Systems / Systems' Thinking.  Draw a bathtub on the white board to illustrate flows and stocks.  Intro Leverage points - These are places that, when we apply a little leverage we can alter the state of the system or change the system entirely -- These are the place that you can begin to turn your current reality into your dream reality  Although these are in a general order of least effective to most effective, they are loose and tend to shift.  There is no good or bad leverage points	Places to Intervene in a System: (In increasing order of effectiveness)  You may not recognize immediately how these things might benefit you. I encourage you to look deeper at this work as it can have a very profound impact. Much of the permaculture design methodology is rooted in this kind of System Thinking.  12. Parameters (Numbers) Deals with the details of a system. How much water can flow through the pipes? How long does it take to turn the lever?  Policy makers love to talk about this leverage point. It's about all they seem interested with. How much plastic junk can be exported to raise GDP?  Like increasing or decreasing the number or arrangement of chairs on the deck of the titanic... it might get a few people to the life boats a little faster but the ship is still sinking.  11. Buffers Lake vs a River. Large stocks create buffers and stabilize systems. these are buffers. The size of your buffer can have a significant impact on the function of a system. Has a great impact but hard to change.  10. Stocks & Flows (layout) This is more about the physical layout of the stocks and flows. Are there bottle necks in your pipes? It's often difficult to change or leverage the existing infrastructure of a system. Proper design from the beginning is the best option. (Permaculture design is all about this)  9. Delays Delays create oscillations. Imagine the temperature of bath water when the water heater is veeerry far away. turn on the hot water and it stays cold for a long time so you turn it on full blast. Suddenly it's too hot to stand so you turn it way down... but there's all that hot water still in the pipe. As you continue to react to the hot/cold oscillations it becomes overwhelming. shorten the delay... and the problem is resolved.  8. Negative Feedback loops Not negative as in bad. A balancing or regulating effect. Thermostat example - maintain a temperature by turning on or off when the temperature goes above or below a certain desired state.  7. Positive Feedback loops Not positive as in good. Positive as in reinforcing. An example of a BAD positive feedback loop is the process of erosion. the more soil erodes, the less vegetation it can support, the less roots and help to hold it in place, the more it erodes. There are GOOD positive feedback loops as well. The more you build soil, the more soil is able to support life and build more soil.  6. Flow of Information Access to information - where information is relative to where we are. EG - Electrical meter placed in the entry way of the house. 30% reduction of energy use in houses with meter in front hall vs meter in basement. If the information is their for you to see you'll practice more leverage over the system.  5. Rules (Incentives, Punishment and Constraints) We all know what rules are... if you change the rules of a football game you change the game. As an example. think of the rules of collage... now imagine what would happen if the rules were changed so that students graded teachers... what would that look like?  4. System Structure Changing or creating an entirely new system. In nature this is known as evolution... in society it is social revolution.  3. System Goals Our goals have a major impact on how we live our lives. It's your goals that have brought you here to this class... and it's

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May, 18th 10:15 - 12:15	90	S	Cooperation vs. Competition	<p>Students will be introduced to alternative systems of organization</p> <p>Students will gain an understanding of the cooperative model of organization.</p> <p>Students will see how economy happens everywhere.</p>		Write the cooperative principles on one side of the white board not too far away from the permaculture principles. Cover with butcher paper.	
	15	A	Intro	Students will become familiar			Draw the oscillation pattern of competitive economic models on the white board.
	10	A		Students will understand permaculture as a system of designing cooperative relationships and how that applies to economics as well as ecology.			<p>In permaculture, we try to steer away from these systems of competition.</p> <p>Part of good permaculture design is to arrange elements in locations that create as many beneficial relationships with other elements as possible while avoiding potentially harmful associations. DESIGNING FOR COOPERATION!</p> <p>The same idea that applies to ecology and how we design our landscapes, applies directly to how we look at and think about our economic systems.</p> <p>All an economy really is, is an EXCHANGE OF ENERGY. Microbes are exchanging energy with plant roots just as we would exchange money.</p>
	35	A		<p>Students will learn a little about cooperative history.</p> <p>Students will learn about the various types of cooperative organizations.</p> <p>Students will learn the difference of cooperatives compared to corporations.</p>			<p>Cooperative organizations are an alternative to the stressful model of competitive economies.</p> <p>Humans have found ways to cooperate throughout our long history on this planet but the first known cooperative business was started in 1845 in Rochdale England where a group of pioneers decided to work together to meet the needs of themselves and their families in a more ethical way. At the time it was hard to find basic essentials like flour that was not cut with plaster. Because of their efforts many more people have equal access to healthy, ethical foods.</p> <p>The Rochdale Pioneers developed a set of principles, much like the permaculture design principles for business organization, that was the key to their success. After only 10 years of opening the doors of the first cooperatively organized business, over 1000 coops had formed under their example.</p> <p>Today coops exist in almost every sector of the economy and have a combined membership in the billions.</p> <p>You might be a member of a cooperative organization and not even know it! Coops come in many forms if you are a member of a credit union, you are part owner of a cooperative organization! Housing Cooperatives - resident owned Worker Cooperatives - Worker owned Consumer Cooperatives - consumer owned Producer Cooperatives - Producer owned</p> <p>These models all localize ownership and avoid the concentrations of wealth happening in the competitive model.</p> <p>Localized ownership means that the consumers, producers, or workers get to make the decisions on how the cooperative operates and functions... not some far off investor that is only interested in profit. The people that shop at a food coop are concerned with how their community and the impact the coop has on that community... share holders in Whole Foods are not.</p>
	15			Students will learn about the cooperative principles and how they relate to the permaculture principles.	<p>Cooperative Principles:</p> <ul style="list-style-type: none"> <li>- Voluntary and Open Membership</li> <li>- Democratic Member Control</li> <li>- Member Economic Participation</li> <li>- Autonomy and Independence</li> <li>- Education, Training and Information</li> <li>- Co-operation among Cooperatives</li> </ul>	Have the Permaculture Principles on one side of the white board and the coop principles written on the other. Have the group call out connections between the principles.	<p>Game:</p> <p>Compare and draw connection between the permaculture design principles and the cooperative organization principles.</p>