CT Envirothon 2017 Scenario:

Permaculture in Your Community

The North American Envirothon 2017 Current Issue:

Agricultural Soil and Water Conservation Stewardship

Introduction

This year, the CT Envirothon Steering Committee decided to modify the NA Envirothon Current Issue Topic to introduce you to the philosophy, ethics, major goals, principles and practices of Permaculture. The word "permaculture", coined in 1978 by Bill Mollison, an Australian ecologist and his student, David Holmgren, was the contraction of "permanent agriculture" or "permanent culture." Permaculture has evolved to mean Permanent Culture *rather than just* Permanent Agriculture and is now considered a design system which draws on the universal principles of nature (ecology). The way things work in nature can be employed in human systems to provide for our needs without degrading nature. Most of the Key Topics and Learning Objectives of the NA Envirothon Current Issue are principles of permaculture. Therefore, we will be asking you to create a Permaculture project in your school or community.

The KEY to having a successful project and making a strong oral presentation on this topic is to carefully read the instructions, review both the SCENARIO and RUBRIC thoroughly and have fun presenting your proposal.

IMPORTANT: ALL SCHOOL IDENTIFICATION (names, logos, initials) MUST BE OMITTED FROM ALL VISUAL MATERIAL USED FOR THE ORAL PRESENTATION TO AVOID IDENTIFYING THE PRESENTING TEAM, SCHOOL OR TOWN. ANY TEAM IN VIOLATION OF THIS RULE WILL BE DISQUALIFIED FROM THE ORAL PRESENTATION AND THE TEAM WILL RECEIVE A ZERO FOR THE ORAL PRESENTATION SEGMENT OF THEIR FINAL SCORE.

Please see the web page of CT Envirothon for additional Guidelines and Regulations.

The Current Issue

Your project will be to create a Permaculture plan. Choose a location in your community (school, community center, vacant lot) and create a design that uses as many of the ethics and principles of permaculture as is appropriate for your site. Begin with an explanation of your project site's current conditions (site assessment), and then detail how you will enhance the property and provide for the community while protecting community assets (environmental and economic). Sketches of the site's key characteristics, both negative and positive, as well as the proposed design project, should be presented visually with hand sketches supported by text or oral description. Choose a site that is convenient for your team to research, and do not worry too much about its size because the oral presentation will be your interpretation of how a Permaculture project can be implemented successfully on the site.

Your project should include the following:

How will your project meet the three core ethical principles of permaculture?

1. Care for the Earth – Your proposal should demonstrate how it will ensure living systems will thrive, because without a healthy environment, a community cannot prosper.

2. Care for People - Your proposal should demonstrate how residents of your community will benefit from your project.
3. Fair Share - Return and Reuse of Excess/Surplus – Your proposal should demonstrate how surplus and waste will be "re-invested" back into the system to provide for the first two ethics described above.

How does your project incorporate the twelve design principles of permaculture? Your project does not need to use all twelve principles but you should detail how your project meets the principles that are appropriate.

1. Observe and Interact: By observing nature you can design solutions that help you reach the goals of your project.
2. Catch and Store Energy: By developing systems that collect resources at peak abundance, you can use them when needed.
3. Obtain a Yield: Ensure that you are getting production of useful products as part of your project.
4. Positive Attitude and Accept Feedback: Discourage inappropriate activity to ensure that your plan can function well.
5. Use and Value Natural Resources and Services: Make the best use of nature's abundance to reduce our consumptive behavior and dependence on non-renewable resources.
6. Produce No Waste: By valuing and making use of all the resources that are available to us, nothing goes to waste.
7. Design from Natural Patterns: By stepping back, we can observe patterns in nature which can form the backbone of our designs, with details added as you see fit.
8. Integrate Rather than Segregate: By putting the right things in the right place, relationships develop between those things and they can work together to support each other.
9. Use Small and Slower Solutions: Small and slow systems are easier to maintain than big ones, making better use of local resources creates more sustainable outcomes.
10. Use and Value Diversity: Diversity reduces vulnerability to a variety of threats. Use polycultures rather than monocultures.
11. Use Edges and Value the Margins: The interface between things is where the most interesting events take place. Edges will likely be the most valuable, diverse and productive areas in your plan.
12. Creatively Use and Respond to Change: How will your project respond to inevitable changes which can be corrected by carefully observing, and then intervening at the right time.

How does your project incorporate the permaculture technique of "layering"? This is the technique of stacking vegetation where different sized plants benefit from being grouped together. Layering also refers to multi-functionality in all the elements of the design – integrate neighboring community groups into the school project, for example; layer classroom curriculum and teaching opportunities into the operation of the design project over time; or, choose plants that have multiple functions in the ecology of the system. It's important to note that permaculture often implements techniques developed by the discipline of Agroforestry.

How does your project incorporate the permaculture technique of "zones"? Zones are a way of organizing design elements of your project on the basis of how often you care for a plant or tend to livestock needs. For example, frequently harvested vegetables (herbs) are located close to a house so they should be located in zones 1 and/or 2. Less frequently used or manipulated elements, and elements

that benefit from isolation (such as wild species) are farther away. Zones are about positioning things appropriately.

The rubric used to evaluate your project addresses the specific components of the ethics and principles described above. Each team should attempt to cover everything listed in the rubric. (Many items may be addressed by a single sentence.) The rubric is found on the CT Envirothon web site (ctenvirothon.org).

Steps to Success for creating a successful Permaculture proposal:

I. Site Assessment:

1. Provide an overview of your project site and how it is a beneficial location for the community.

2. Description of site (DO NOT IDENTIFY YOUR LOCATION!) including a MAP of the site with simple sketches or labelling of the following:
   a) Description of the soils
   b) Water resources including natural and stormwater runoff from impervious surfaces
   c) Solar exposure
   d) Proximity to community and cultural resources (ex. farmers market, senior center, bus line)
   e) Existing native and invasive plants
   f) Slope
   g) Any other characteristic that makes your site unique.

II. Project Design Element Selection and Justification

1. Provide a description of the practices being implemented by detailing how it fulfills a role in your overall plan and how it meets a Permaculture principle core value or technique.

III. Project Sustainability:

1. Provide a description of how your project will sustain itself with minimum input from outside resources.

IV. Project Outreach and Education:

Bill Mollison, considered the father of Permaculture, believed that it was the responsibility of students and practitioners of Permaculture to share what they learn with others. With this important tenet in mind, create a public outreach and education program that will inform and engage the public about your permaculture project and how they can promote the incorporation of permaculture into their day-to-day lives**. Be creative!** Outreach projects can include the use of social media, websites, brochures, signs, commercials and training sessions to engage the public. Think about permaculture techniques and practices that work best in your community, and discuss what materials you would use and how you would implement them.

REMEMBER: All team members must wear the official Connecticut Envirothon T-shirt for the oral presentation. No articles of clothing with the team, school or town identification (hats, jackets, etc.) will be permitted during the oral presentations.