

Place-Based Learning Project Planning Guide

Project Title: Ecotourism at Home: The Benefits of Conservation Project Leader(s): Jenna Hunter

Grade Level(s) 11-12 School Name: Orange High School School District: Orange County Schools

Content Areas: Science Arts Math Technology Foreign Language AP Environmental Science Other

1. Project Objective(s): The goal of the project is to connect students to the environmental and economic choices made in their own community regarding land use. Utilizing my experiences as an example, AP Environmental Science students will design their own eco-lodge or eco-site in our hometown (Hillsborough, NC). Students will have the opportunity to apply the themes of the course in their design: economics, energy efficiency, sustainability, agriculture, and biodiversity. Students will meet with a local landowners and former large-scale farmers in our town (Mr. Ben Lloyd and Mr. Alex Lloyd), look at the topographic and aerial maps of their land, and design a hypothetical ecotourism business using their land as a model. The land is approximately 5 miles from the school. Students will take responsibility for business-development in our community and model ways in which development can still be sustainable.

2. Project Description: Include in your description answers to the following questions: What is the scope of the project; that is, how many teachers, students, and community members do you expect to be involved? Who are your community partners and how are they involved in planning and implementation?

Scope of the Project: There are 2 AP Environmental Science teachers that will assign the same project, each with 30 students in 2 classes, making a total of approximately 120 students involved. The construction teacher at the high school is also scheduled to come and speak to the classes about Green Building, and the principal is scheduled to attend the student presentations at the end of the year. Local community members (the town planner, local aforementioned farmers, and a freelance environmental engineer (Holly Reid, parent of one of the students in the class), will all also attend the project presentations to provide feedback.

Community Partners: Other than Mr. Ben Lloyd and Mr. Alex Lloyd, who will show the class the property, discuss historical land use in the community, and help the students generate ideas regarding their projects throughout the semester, the community partners listed above are involved in the presentation



portion of the project. The students will present in a formal environment to the panel of community members listed above, at which point the students will defend their projects, answer questions, and receive feedback from community members.

3. Community Connection: How is the project connected to the unique identity of your place (e.g., culture, economy, infrastructure, natural resources)? What makes this a community development project? What specific community need will it address?

Unique identity of Hillsborough, NC: Hillsborough is a rural town that was once booming with agriculture. In the decades during agriculture's shift towards small-scale organic or large corporate farming, many of our local mid-sized farms suffered. As the bicycling craze and interest in organic farming have begun to percolate over from the neighboring college town of Chapel Hill (UNC-CH), visitors are flocking to our area to visit farms and ride bikes through the idyllic countryside. Avid cyclists come here to visit with nowhere to stay and no infrastructure to support their demands. This unique combination of demands provides the perfect setting for a local ecotourism project of this nature.

What makes this a community development project? Many local landowners are no longer farming and are looking for ways to generate income from their land without sacrificing its environmental allure. Many formulaic neighborhoods have gone up in recent years and completely changed the feel of the town. This ecotourism idea and project could give landowners a way to generate income without cutting down trees or losing what we all love so dearly about our town. Multiple landowners have agreed to speak with the students about the project and hear their ideas. In this way, the landowners think more about sustainability and the students think more about their sense of home: for example, the question will be posed: "If the town changes dramatically in the next 15 years towards more pop-up neighborhoods and shopping centers and fewer countryside and trees, how will that change their perception of why they call it home?" In generating these questions, the students' sense of place could change dramatically and make them more proud of their community, potentially generating the inspiration to preserve it.

4. Essential Question: What is the essential question addressed by the work of the students and community partners?

How can ecotourism have co-benefits for the environment as well as the economy and the people of Hillsborough, North Carolina?



5. Student Learning Outcomes and Standards:

Learning Outcomes: What will students know and be able to do as a result of this project?	Standards Addressed: Which learning results or benchmarks do these outcomes address?	Assessment: How will you assess each student learning outcome?
1.		
2.		
3.		
4.		
5.		

6.. Literacy Acquisition:

Goals: What specific literacy goals will the project address?	Strategies: What literacy strategies will the project employ?	Assessment: How will you assess literacy outcomes?
Students will utilize pre-planning outlines and project guides to initiate their brainstorming process with collaborative writing.	Students will complete graphic organizers to structure their primary goals and objectives for the project.	
Students will write abstracts for their overall projects.	Students will utilize summative science writing and undergo extensive editing processes while editing each other's abstracts.	
Students will generate their own project proposals, turn those ideas into writing, and make presentation cue-cards.	Students will practice brainstorming and organizing their ideas into a reasonable and realistic project proposal.	
Students will design, write, and edit their own websites for their specific ecolodges.	Editing and product generation.	
Students will design and write interview questions for local landowner and construction teacher at Orange High School (both will speak to class).	Meaningful question development, questioning style.	



Students will engage in note-taking skills during interviews and lectures with local community members.		
7. What 21st Century Skills will students apply and assimilate through this project? How will students demonstrate these behaviors?		
Goals: What 21 st Century skills with students apply?	Assessment: How will you assess 21 st Century outcomes?	
Students will design, write, and edit their own websites for their specific ecolodges.	A portion of the students' overall grades will be derived from their website—is it attractive? Does it make sense? Does it provide accurate information? A website-design-specific rubric will be provided for the website-portion of their project.	
8. Technology: What technology tools will the project employ? How will that technology be used to enhance learning and improve on the community issue(s) the project is addressing?		
<p>Our county just underwent a 1:1 initiative in which every student was provided a laptop for in and out-of-class use. Students will utilize these computers to research existing ecolodges across the country and look at their sustainability practices on those ecolodges' respective websites. Students will then develop mock websites as part of the pitch for their hypothetical ecolodges using weebly as a site host. I am very familiar with the website, its interface and design, and addition of content to the page. I can show the students this website tool if they do not already know how to use it specifically.</p> <p>The websites will then be made available and accessible on the school website. Our school website consistently has scrolling images that link to projects going on in the school. I will have one of the images link to a site with the student mock-websites available for student, teacher, and community viewership.</p>		
9. Authenticity: How does this problem connect to the local community OR Where in the “ real world ” might one see the problem or question addressed by the project tackled by an adult at work or in the community? (Ex. Local fish and game scientists also study species in our local creek.)		
Local property owners can consider alternative uses of their land for income. These alternative uses can also have sustainable benefits for the local environment while simultaneously having potential economic and social benefits, as well.		
10. Adult Connections:		
10a. Do students have access to at least one other adult with expertise relevant to their project who can address questions, provide feedback, etc.? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
10b. Does the project offer students the opportunity to develop a broader understanding of the relevant field of work through observing adults during at least one in-depth work site visit ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
10c. Does at least one adult from outside the classroom help students develop a sense of the real world standards for the type of work arising from their project? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		



10d. What **roles** will adults outside of the classroom play in this project and how will students **connect** with these individuals? (Ex. Structural engineers will provide feedback to student teams on bridge design.)

Local landowners will be available for a site visit. Students will also be able to conduct interviews with the town planner, local landowners, and an environmental engineer and landscape architect who are both currently working with the school consistently on school beautification projects. The local landowner (Alex Lloyd) will provide both a site visit as well as a classroom visit to help students generate ideas and trouble-shoot issues that may arise with their project plans.

11. Active Exploration: Which of the following **methods and sources** of information are students expected to use in the project? (Check all that apply.)

- ✓ Interviewing
- ✓ Observing, documenting, and/or surveying
- ✓ Video or audio-taping
- ✓ Gathering and reviewing published information
- ✓ Searching on-line and electronic databases
- ✓ Creating a symbolic representation (g/g/, model building, map making)
- ✓ Discussion
- ✓ Experimentation
- ✓ Other: Formal defense of presentation in front of a panel of community members.

12. Additional Assessment Information:

12a. Which of the following methods of **self-assessment** of progress are students expected to use? (Check all that apply)

- ✓ Journals and **work logs**
- ✓ Conferences with teachers or adult mentors
- ✓ Conferences with peers
- ✓ Using a rubric or other assessment measure
- ✓ Reviewing their progress against a work plan they developed for the project
- ✓ Identifying areas where improvement has occurred and where it is needed



12b. Do students prepare a culminating exhibition, performance, or demonstration at the completion of their project that shows their ability to apply the knowledge and skills they have gained?

Yes No Not Sure

12c. What opportunities are students given to conduct individual, small group and whole class **reflections on their learning** and to offer suggestions for future class projects? [Ex: Small group reflection and whole-class debrief held the day after final exhibition.]

Small-group reflection throughout the collaborative project and whole-class debrief will be held the day after the formal presentations.

Please attach any lesson plans to this guide. Still in progress—will send upon completion.

