

Human Impact on Ecosystems Assignment

Ecology Inquiry-Based Project

- ✓ Inquiry-Based Ecosystem Project
- ✓ Customizable & Device-Friendly
- ✓ Includes Rubric & Topic Choices
- ✓ Ideal for Grades 5–9



Human Impact on Ecosystems

Type: Poster or pamphlet

You will study the impact of a factor related to human activity that threatens the sustainability of a terrestrial or aquatic ecosystem in your area (City, State, or Province). You will then discuss what has already been done to remedy the problem and what can and should be done in the future to limit the human impact. To narrow your research, please choose ONE terrestrial or aquatic ecosystem to focus on.

Issues you could choose from:

- 1) Urban sprawl and its effects on local (specific) wide life.
- 2) Invasive species (red slider turtle, zebra mussels, purple loosestrife, etc.)
- 3) Water pollution
- 4) Level of heavy metals and decline in large birds
- 5) DDT and the decrease in fish eating birds
- 6) Increase in acid rain and its effects on aquatic organisms
- 7) Mining and its effects on the environment.
- 8) Deforestation
- 9) Monocultures in forests.
- 10) Choose your own topic and have the teacher approve

Your project should have the following headings:

1. Introduction - What has occurred (deforestation, reducing wetlands, etc.) to impact the sustainability of the terrestrial or aquatic ecosystem you are focusing on?
2. What is the greater impact of the human activity (on the State, Province, Country, World, etc.). Has this impact created further problems in other areas? For instance, has the invasive species spread from the initial ecosystem to other areas? For example, the introduction of the Cane Toad was meant as a pest control measure, but they quickly spread and began dominating surrounding regions of Hawaii, the Caribbean, and the Philippines after being introduced.
3. Improvements - What is being done or has already been done to remedy the problem? What should be done in the future to reduce the impact?
4. How can we have both? What do you think could be done to increase sustainability but still allow some human impact to occur? Example, our population is continually growing so we need new homes to live in. How can this be obtained without impacting our ecosystem more than necessary?

Your project can be submitted as either a Poster (full size Bristol Board) or a pamphlet (8.5x11 paper folded into thirds)

Marking Rubric:

	1	2	3	4
Introduction:	Discussion is not accurate and/or has missing information.	Discussion of the impact lacks some accuracy and/or is not concise.	Discussion of the impact is accurate and concise.	Discussion of the impact is accurate and concise and includes extended insight and thought.
Greater Impact Extensions:	Discussion of the greater impact "why should everyone care" has missing information and/or is not accurate.	Discussion of the greater impact "why should everyone care" lacks some accuracy and/or is not concise.	Discussion of the greater impact "why should everyone care" is accurate and concise.	Discussion of the greater impact is accurate and concise and includes extended insight and thought.
Improvements	Discussion of the improvements has inaccurate information or is missing actual research or personal opinion.	Discussion of the improvements lacks some accuracy (not enough research) and/or not concise.	Discussion of the improvements is accurate and concise. Research was done to determine what has been/could be done.	Discussion of the improvements is concise and includes extended insight and thought. Well thought out opinions on what more can be done is included along with research.
How can we have both?	Discussion on having a sustainable ecosystem while industry or human activity occurs has inaccurate or missing information.	Discussion on can we have both lacks well thought out plans and/or not concise.	Discussions on can we have both is well thought out and concise.	Discussions on can we have both is well thought out, concise and includes extended insight and thought.
Communication	Multiple errors in spelling, grammar and sentence structure. It is apparent that editing was not completed.	Some errors (3-5) in spelling, grammar and sentence structure. Editing was not thorough.	A few errors (1-3) in spelling, grammar, and sentence structure. Editing was completed.	No errors in spelling, grammar, and sentence structure. Editing was apparent.
Presentation	Very little time and effort was put into project. Or Format wasn't followed.	Some time and effort was placed into the project.	Obvious effort was placed. Images included enhance the project.	Obvious effort. Lay out and images improve the readability.
Initiative	Project and summary not submitted on time.		Project and summary submitted on time.	

How this assignment will help your students:

- ✓ **Promotes Real-World Relevance:** Students explore current environmental issues affecting ecosystems, helping them understand science in a real-world context.
- ✓ **Builds Research and Critical Thinking Skills:** By investigating a human activity's impact on ecosystems, students analyze cause and effect, assess evidence, and make informed conclusions.
- ✓ **Develops Communication & Collaboration:** Working with partners to present findings boosts students' oral communication and teamwork skills. Presenting research encourages them to synthesize complex ideas clearly and effectively.
- ✓ **Supports Inquiry-Based Learning:** Instead of receiving facts, students **generate questions**, seek answers, and guide their own learning journey—deepening understanding and retention.
- ✓ **Encourages Responsible Technology Use:** With the option to use personal devices for research or presentation, students practice responsible tech use in an academic setting—important for digital literacy.
- ✓ **Differentiates Learning:**
The choice of topics and open-ended structure lets students explore areas that interest them, making the assignment accessible across various learning styles and ability levels.
- ✓ **Prepares for Future Assignments:** This kind of inquiry and presentation project mirrors what students will encounter in middle school, high school, and even post-secondary education.

Why You'll Love This Resource



 **Saves You Time** – No Prep - Ready to use in minutes.

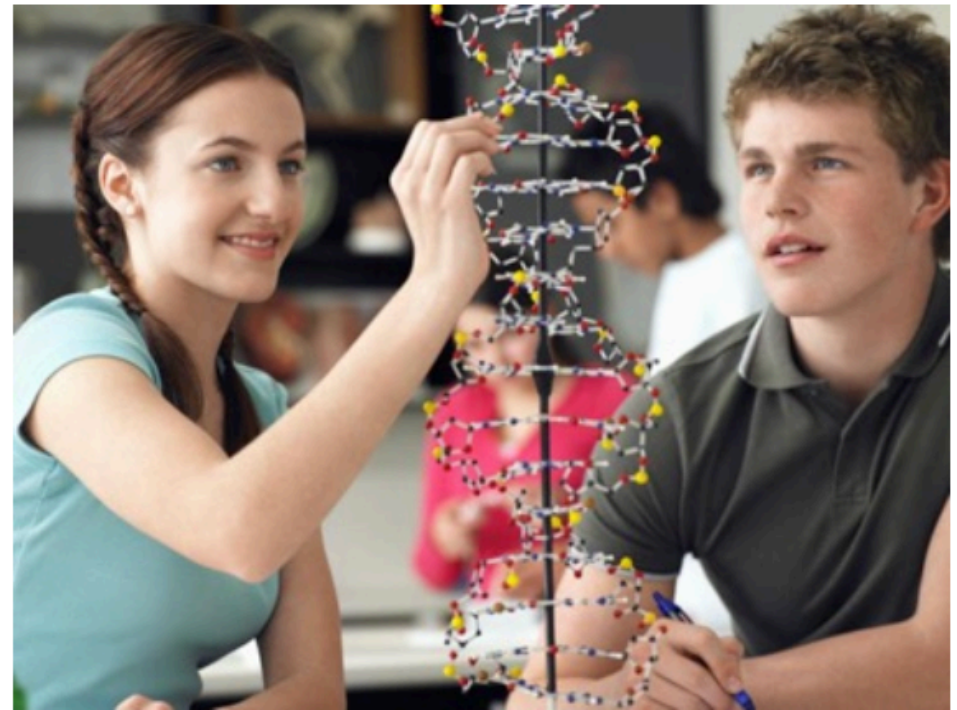
 **Boosts Scientific Literacy** – Helps students strengthen reading comprehension and analysis skills while covering key engineering topics.

 Students will define design problems with clear criteria and constraints, evaluate competing solutions, analyze test data, and develop models for iterative testing.

Get away from tired practices and unengaged students



Provide a Scientifically-Proven means of instruction



Incorporate Technology and Increase Collaboration

