

Name: _____

Human Impacts Project

Directions: Your goal is to research, formulate notes for students, and create a model for presentations from the topics below focusing on human impacts.

If there is a topic you think should be added to the list, we can discuss its relevance.

Format: *Be creative and create an infographic, poster, or one page presentation.* (talk to me if you want to do something different. Things you can include: a concept map, table, graphs and columns. *pictures are required!

You will need at least 3 credible sources **linked** on the **bottom or back of your project**

Important items to include:

- What organisms are being affected?
- How is your topic caused by humans?
- How does this affect the natural ecosystem? What impact does it have on biodiversity?
- What has been done or is being done to help with this issue? If nothing is being done what can be done?
- How can you tie it back to the Carbon or Nitrogen cycles? -think: will this issue add more carbon or nitrogen into the ecosystem? How would that happen?

Theme: Habitat Destruction ***Specific topics to choose will be bullet points below**

- **Deforestation:** Clearing forests for agriculture, logging, and urban development.
- **Urbanization:** Expanding cities and infrastructure reduce natural habitats.
- **Agriculture:** Converting natural landscapes into farmlands.
- **Mining:** Extracting minerals disrupts land and ecosystems.
- **Wildfires:** Burning vegetation
- **Drought:** lack of water

Theme: Pollution

- **Air Pollution:** Emissions from factories, vehicles, and burning fossil fuels release harmful substances like CO₂, SO₂, NO_x, and particulate matter.
- **Water Pollution:** Industrial discharges, agricultural runoff, and untreated sewage contaminate water bodies with chemicals, heavy metals, and pathogens.
- **Soil Pollution:** Use of pesticides, herbicides, and industrial waste leads to soil contamination.
- **Plastic Pollution:** Non-biodegradable plastics accumulate in oceans and landfills, harming wildlife.

Theme: Climate Change

- **Greenhouse Gas Emissions:** Burning fossil fuels, deforestation, and industrial processes release CO₂, methane (CH₄), and other greenhouse gases.
- **Sea Level Rise:** Due to melting glaciers and ice caps more water is going into the ocean increasing the amount of water.
- **Changing global temperatures:** Due to humans we have been altering the normal temperatures.

Theme: Overexploitation

- **Overfishing:** Depletes fish populations and disrupts aquatic food webs.
- **Hunting and Poaching:** Reduces populations of targeted species.
- **Logging:** Unsustainable timber extraction leads to deforestation.
- **Water Extraction:** Excessive use of freshwater resources for agriculture and industry.
- **Soil Degradation:** Loss of organic matter in the soil

Theme: Invasive Species

- **Global Trade and Travel:** Movement of goods and people introduces non-native species to new environments.
- **Agriculture and Horticulture:** Introduction of non-native plants and animals for cultivation.

Name of Student: _____

Grading Rubric: Use a model to show how your topic is caused by human impacts and what they are.

0.0 - F	0.5 - F	1.0 - D	1.5-C/D	2.0 - C	2.5-B/C	3.0 - B	3.5-A/B	4.0 - A
No Evidence or missing	Beginning to or shows prerequisite understanding of the content under study, but does not show evidence of the basic skills and strategies associated with this concept, yet.	Answers basic questions about the content being studied	and answers complex questions and use strong examples/evidence to show my understanding		and uses a crosscutting concept to make connections/synthesize the content under study. and/or apply content knowledge to a new situation			

Success Criteria	Shows partial understanding of some basic topics/definitions	Recognize and use specific vocabulary. <input type="checkbox"/> Definitions <input type="checkbox"/> Is able to share impact of topic	Analyzes data, terms, and/or diagrams to create succinct, detailed information for peers. <input type="checkbox"/> Is able to share how it impacts the ecosystem <input type="checkbox"/> Is able to show what is being done to help issue <input type="checkbox"/> -or- is able to show what can be done to help issue	Applies content to a new situation not taught in class and/or uses a CCC to accurately show in-depth understanding of the content <input type="checkbox"/> How does this issue tie back to the carbon and nitrogen cycles?
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