**Human Impact on the Biosphere**

**Dodecahedron Performance Task**

Have you ever thought about how humans have influenced the environment and all the living organisms that live there? In this project, you will be assigned a human impact topic to investigate. You will research how this human impact affects the ecosystem. You will construct a dodecahedron, poster, or Thinglink. You may work individually or with a partner. Your product must be presented via Flipgrid. Please see the attached rubric for more details.

**Human Impact Topics**

* Introduction of non-native species
* Deforestation
* Greenhouse gas production
* Natural resource depletion (renewable & nonrenewable)
* Loss of biodiversity
* Eutrophication/water pollution
* Chemical use (pesticide/insecticide)
* Air pollution
* Soil depletion/erosion
* Ozone depletion (CFC’s)

**This performance task will count as 100 points.**

**DUE AT THE BEGINNING OF CLASS ON Friday, August 28, 2020**

Name(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_ Human Impact Topic: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Human Impact Performance Task Rubric**

**Complete all tasks in the correct order and please use complete sentences when writing all information.**

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| **STANDARD SB5a:** Investigate and explain factors affecting ecosystems’ biodiversity and populations. | Possible Points  | Points Earned |
| **Side 1:** Name(s), due date, and block. The impact topic you have been assigned. | 5 |  |
| **Side 2-4:** Pictures of your impact (drawn in color **or** printed in black/white/color). Include a caption that describes each picture. Cite the URL next to each picture. | 10 |  |
| **Sides 5:** Description of your impact. | 5 |  |

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| **STANDARD SB5d:** Design a solution to reduce human impact on the environment.  | Possible Points | Points Earned |
| **Side 6:** The impact it has on the environment (include biotic and abiotic factors) | 10 |  |
| **Side 7:** Possible solutions (currently in place and/or new ones to consider) Include laws in place for conservation. | 10 |  |

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| **STANDARD SB5e:** Explain and predict an organism’s ability to survive within changing environmental limits | Possible Points  | Points Earned |
| **Side 8:** Identify a specific species (include a picture) and explain the adaptations they have to survive in their changing environment. | 10 |  |
| **Side 9:** Using the species from slide 8, show an expected change in population size using a food web for that species. Your food web must include three trophic levels.  | 10 |  |

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| **STANDARD SB5c:** Argue and predict the impact of environmental change on an ecosystem. | Possible Points  | Points Earned |
| **Side 10:** Identify and describe the cause/source(s) of the threat (extinction, overexploitation, habitat loss, pollution, or introduced species). Include specific details about how the threat affects the ecosystem. | 10 |  |

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| **STANDARD SB5b:** Model the cycling of matter and flow of energy within ecosystems (photosynthesis, respiration, food webs, energy pyramids, nutrient cycles)  | Possible Points  | Points Earned |
| **Side 11:** Describe how your chosen human impact affects one or more of the biogeochemical cycles (water, oxygen, carbon, phosphorous, or nitrogen). | 10 |  |
| **Side 12:** References-Must have at least 3 references use APA format (www.citationmachine.net) | 10 |  |

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| **Gallery Walk:**  | Possible Points  | Points Earned |
| Using the gallery walk form, you will view four of your classmates Flipgrid videos and complete the chart.  | 10 |  |

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|  | Possible Points | Points Earned |
| **Total** | 100 |  |