

**APES-Global Climate Change Book Project**  
**This will count toward your EXAM for this unit- make sure you do a good job!**  
**Due: January 21<sup>st</sup>- No Acceptions**

You will create a book, Powerpoint, Video, etc. to teach others about the following topics. You must include at least one comprehensive page on each section listed below. This project must be creative, neat, and it should be obvious that a considerable amount of time was spent on it.

**Section 1. Ozone Depletion**

- Layers of the atmosphere (draw and label a diagram)
- Montreal Protocol (what is it? How does it work?)
- Ground-level Ozone vs. Stratospheric Ozone (compare, explain environmental & health effects of the different types of ozone)
- Solutions to ground level ozone
- Solutions to the hole in the ozone (where is it located and WHY?)

**Section 2. Causes of Global Climate Change**

- Greenhouse Gasses (*what they are, where do they come from, what percentage*) & Greenhouse Effect
- EPA's regulated air pollutants
- El Nino & La Nina (compare and explain how each effects the environment)
- Major Types of Fuel Types (*pros and cons of each; you need to include: oil, natural gas, & coal*)

**Section 3. Effects of Global Climate Change**

- Climate Change as an example of *Positive Feedback* Loops (explain)
- Industrial vs. Photochemical Smog (with specific examples of each)
- Temperature Changes (with specific example)
- Changes in Precipitation (with specific examples)
- Sea Level Changes (with specific examples)
- Changes in Global Ice (with specific examples)
- Changes in Biota (with specific examples)

→Proxy Indicators (*explain how each of the following helps us understand climate: ice cores, tree cores, ocean sediment, coral, pollen*)

**Section 4. Solutions to Climate Change**

- Kyoto Protocol (*what is it? Explain the debate over this law*)
- Carbon Offsets
- Major Types of Renewable Fuel Types (*pros and cons tidal & wave energy, geothermal wind, solar energy, hydropower, algae/biofuel*)