

Session 3: Human Interaction with the Environment



- What makes humans humans? (**5 minutes**)
 - We build things, we use our environment to make our lives better
 - However, we might also overuse the resources present in our environment
- What are resources? Bring out a U.S. map (**15 minutes**)
 - Where are resources found?
 - Oil: Texas, California, Gulf of Mexico area
 - Natural gas and shale oil: North Dakota
 - Coal: Appalachian region
 - Water: California lacks water (and is in a drought)
 - Wheat and corn: Nebraska, Iowa, Illinois, Missouri, Kansas
 - Resources are important as the backbone of the economy
- Major global issues (**20 minutes**)
 - Introduce them to the topic of global warming and climate change-nations around the world, in their quest for industrialization, have polluted the environment and air with greenhouse gasses, which trap sunlight/heat and thus lead to global warming: warming means higher sea levels, cities go underwater, millions of sensitive species go extinct
 - The ozone layer, which protects us from the sun's harmful radiation, has also been depleted due to pollution. In the long run, this would lead to more cases of skin cancer as more harmful ultraviolet rays are allowed to enter the atmosphere
 - Biggest threats are mass extinctions due to habitat loss and changes in climate
 - **Special topic: Energy**
 - Fossil fuels are our current energy source, are unsustainable: means that we are running on a limited supply, and when that runs out, we will have no fossil fuels left
 - We need a renewable energy source: based on something that will not run out
 - Solar, wind, nuclear energies, biofuels
 - Energy ties in with geopolitics

- U.S. and Saudi Arabia have close economic ties because they rely on each other for fossil fuels: this has led to political conflict among those in the Middle East
- Resource partitioning
 - Millions people in developing nations do not have access to clean drinking water
 - “Water wars” as water is becoming more scarce due to global warming
- Divide between developed and developing nations (inequality)
 - Food-many lack access to sanitary, nutritious food (esp. due to pollution)
 - Energy-many developing nations rely on dirty forms of energy, while new technologies in developed nation push for renewable energy sources (like wind, solar)
- Global issues activity (**20 minutes**)
 - Divide students into groups of 3/4 students, have each of them pick a global issue (one of the 4)-one volunteer per group to help
 - Brainstorm on paper how the issue might affect communities
 - Outline a solution that you think would solve the issue
 - Takeaways for students: essential skills of collaboration, awareness of global issues