Preliminary Assessment of Student Knowledge

1. List two ways that climate change will likely affect cities, regions, or nations in the next 30 to 50 years.
2. Which of these changes can make Earth's temperature increase, generally speaking? **Mark all that apply**.
   1. Increased emission of radiation from the Sun.
   2. Increased ice in polar regions.
   3. Increased greenhouse gases in the atmosphere.
   4. Increased reflectivity of Earth's surface.
3. What can we do to slow climate change over the next century?
   1. Reduce greenhouse gas emissions gradually over a long period of time.
   2. Very little; natural processes will correct the system over the next century without human intervention.
   3. Reduce greenhouse gas emissions substantially beginning right away.
   4. Nothing, the mistakes have already been made, and nothing can change the outcome.
4. How is Earth's climate changing right now?
   1. Average global temperature is warming more quickly than it has in past centuries and millennia.
   2. Average global temperature is warming more slowly than it has in past centuries and millennia.
   3. Average global temperature is steady.
   4. Average global temperature is cooling more quickly than it has in past centuries and millennia.
5. Which best describes the state of scientific understanding about the cause of climate change?
   1. Most climate research indicates that the climate is too complicated to understand, so we are very uncertain about the causes of climate change.
   2. The overwhelming majority of climate research indicates that human activities are a major driver of present-day climate change.
   3. There is very little research in this area, so our understanding is very preliminary, and climate scientists do not agree about how to interpret the data.
   4. Most climate research suggests that present-day climate change is due to natural processes.
6. Scientists and economists predict climate change over the next century will result in both positive and negative impacts on humans globally. Which statement best describes the overall consequences of those predicted changes?
   1. Negative impacts will outweigh positive impacts.
   2. Positive and negative impacts will balance out.
   3. There is little consensus on this subject.
   4. Positive impacts will outweigh negative impacts.
7. What is the difference between weather and climate. **Mark all that apply.**
   1. Weather is the conditions occurring right now; climate only describes past events.
   2. Weather occurs over a short time frame; climate is a long-term, average state.
   3. Weather refers to extreme events, like tornadoes or hurricanes; climate refers to the day-to-day, normal conditions.
   4. Weather occurs only in a small region of the planet; climate is global.