DIRECTING CLIMATE CHANGE

GRADES 9-12

PROJECT OVERVIEW

In small groups, students will create their own movie poster or movie trailer (using iMovie or other simple editing systems) for a film about climate change. Each group will also submit an overall synopsis of the movie if it were to be put on the big screen. It must address what causes climate change, and some issues involved. The rest is up to the students, including details and ending (e.g. ends with solutions to issues on global warming, or can end in tragedy if we don't fix the issues, etc.).

For the movie poster:
Design a poster by using pictures taken or drawn. It can be created by hand or on a computer. It must have a title, and a short summary (less than 7 sentences) to draw in audiences to want to see the film.

For the movie trailer:
Create a short (less than 2.5 minutes) trailer for the film. A group that decides to create a trailer will not be allowed to further explain what their movie is about, so everything they would like to sell or would like the audience to know must be shown though the trailer.

Students will present their movies to the class. The students watching will act as movie critiques, or as producers. After all students have presented their films, there will be a vote on which top three movies will be put into production. The top three groups must then describe to the class what happens in their film, and how it ends.

All students will submit an overall synopsis of their movie, whether or not they are in one of the top three groups. The overall movie must be directly involved with climate change, have a title, and address at least one major effect of climate change. Each group of students will also submit a list of sources cited, which must include at least 5 reputable information sources.

Students can be graded on overall creativity, their presentations, how well the movie addresses climate change, etc.

RULES TO THE GAME (CONT.)

1. The teacher announces, "Pollutants, open your eyes."
2. All of the players who received a pollution card will open their eyes and silently acknowledge each other.
3. The Pollutants will then decide which Nature player to eliminate through silent gestures, and will hold up fingers representing that player's number or point to the Nature player that they want eliminated. The teacher will acknowledge this and then announce,"Pollutants close your eyes," and the Pollutant players will close their eyes again.
4. The teacher will then announce,"EPA open your eyes, and the one player who represents the EPA will open his or her eyes. The EPA will then make a guess at who one of the Pollutant players is, by pointing or holding up a number representing that player, and the teacher will silently gesture yes or no to the EPA. The EPA gets one guess per round. The teacher will then announce, "EPA close your eyes."
5. The teacher then says, "The round has been concluded, everyone open their eyes". All players open their eyes but keep their identities a secret. The teacher then announces which Nature player was eliminated, and how it was done from reading the extinction cards (e.g. Player 3 represented the snow leopard, and has gone extinct due to a 30% decrease in its Himalayan Mountain environment as a result of increased CO_2 emissions). After the Nature player is eliminated, or has become "extinct," he or she steps away from the circle, and the circle is then open for discussion.
6. Players may discuss who they believe the pollutant players are, and then come to an agreement on who to eliminate. The EPA may give opinion as well based off of what they discovered from the previous round about a specific players identity, but may not reveal his or her own identity in the process. The Pollutant players also want to lie and cover their identity, engage in the discussion, and act as if they are Nature players as well.
7. After discussion and voting to eliminate a player occurs, the teacher will announce if the group eliminated a Pollutant player or mistakenly eliminated a Nature player. If the players do vote out a pollutant, the teacher will say what was done to eliminate or regulate that pollutant (e.g. A city passed a law regulating water consumption in public areas, thus decreasing the total energy used, saving water, and decreasing the burning of fossil fuels that increase greenhouse gases and contribute to increased global temperature).
8. The process is repeated, starting with the Pollutants, then the EPA. If at any point the EPA is eliminated, the teacher will continue to announce their position as if they are still in the game.

The game ends when all of the Pollutants are eliminated (Nature wins), or when there are equal amounts of Pollutants to Nature (Pollutants win).

If Nature wins, pollution is regulated and under control. If Pollutants win, global warming increases and overall global health diminishes, and we lose one of our endangered species.

DISCUSSION QUESTIONS

- If pollution won the game, why did this happen? How could it have gone differently? How does this relate to the real issues being faced today?
- If nature won, what did they do right to beat pollution? What are some ways this relates to the real world?
- Based on the different scenarios you heard, which ones can relate to Iowa?
- What are some ways we can realistically prevent global warming and climate change today?
- Who do you think will win the game in the end in the real world? Pollution or Nature?

EXTINCTION CARDS

- The snow leopard has gone extinct due to a 30% decrease in its Himalayan Mountain environment as a result of increased CO_2 emissions.
- Increased trash in the ocean causes the loggerhead sea turtle to go extinct.
- Increased fertilizer pollution causes algae bloom, depleting O2 from the Gulf of Mexico and causing the Smalltooth Sawfish to go extinct.
- Oil spill in the Gulf of Mexico cause the Brown Pelican to go extinct.
- The Galapagos penguin goes extinct due to increased water pollution from the use of fossil fuels.
- Increased road traffic causes the extinction of the Spotted Skunk.
- Decreased trees and prairie for farmland causes short eared owl to go extinct.

CLEAN UP CARDS

- A city passed a law regulating water consumption in public areas, thus decreasing the total energy used, saving water, and decreasing the burning of fossil fuels that increase greenhouse gases and contribute to increased global temperature.
- A city switches from using petroleum-based fuels for their public transportation to use ethanol and biofuels, burning cleaner fuel and putting less pollution in the air.
- A town dedicates a day to turning off all their lights and unnecessary electric appliances for 12 hours, saving thousands of pounds of pollution from entering our atmosphere.
- Your class decides to ride your bikes once a week to school rather than drive.
- A hotel puts a timer on shower use to reduce wasted power and water.
- A carpool lane is put into a city to avoid traffic for those willing to share a ride, reducing traffic and the amount of pollution put into the atmosphere.
- Schools volunteer a few hours once a month to clean up parks and plant trees.