Lab: Emissions Trading

Activity: The color white is a new pollutant. For each item of visible clothing that has ANY white on it, you must pay 1 ticket. Each student is allowed 2 tickets and a packet of Smarties. If you do not have enough tickets to cover your "white pollution", you will lose 5 points on this assignment PER white pollutant. You may attempt to "buy" (with Smarties), trade, etc. to gain tickets if you need.

Analysis Questions:

1. How many items of clothing with the color white are you wearing?

2. Do you have a surplus, deficit, or equal amount of tickets in order to cover your White Pollution?

3. If you have a surplus, what did you do with the tickets? If you had a deficit, what did you do with the tickets? If you were equal, just write "equal".

4. Ask those who had to "buy" tickets …. What seemed to be the going rate for purchasing White Pollution Allowances?

5. If this experiment were continued for a week, how would that affect your willingness to trade if you had a surplus?

6. If this experiment continued for a week, how would that affect your clothing choice each morning?

7. How might this relate to the trading of pollution credits in the real world?

Allowances: The Currency of EPA's Emissions Trading Programs
Refer to the EPA website, https://storymaps.arcgis.com/stories/105b4cb2a3c3431db297d2db212dcdbb .

8. What is the benefit of market-based programs to reduce emissions?

9. What is an allowance, as set forth by the EPA?

10. What is CSAPR and what pollutant does it include?

11. Use the map to determine the budget in NC allowed by CSAPR.

12. Explain the example given for New Jersey regarding allowance trading.

13. When did the first EPA emission trading program begin?

14. Using the bar graph provided, calculate the allowance deductions from 2015 to 2020.

15. Identify the facility compliance rate for the CSAPR program from 2015 to 2020.

16. Explain two benefits to the cap-and-trade system for pollution control. (not specifically given on this page, but you can explore more, if needed)

17. Explain two limitations to the cap-and-trade system for pollution control. (not specifically given on this page, but you can explore more, if needed)