Carbon Footprint (Climate Change)

Objective

1) **Climate Change - Students will identify their carbon footprint, analyze their activities, and how they can make a change for the better.**

Essential Questions

What is a carbon footprint?

How do our daily activities add to our carbon footprint?

What are the main sources of greenhouse gas emissions?

Anticipatory Set/Direct Instruction

What is my Carbon Footprint?

Lesson: Slides/ Video explaining - on nearpod (with questions and student participation)

Nearpod Slides:

Google Slides:

Learning Activities

Activities:

*Students will take a carbon footprint quiz (asks questions like how do they get to school, do you turn off your lights, do you recycle, etc.) -

*record and compare the numerical data (collected data on nearpod poll and posted in jamboard) -

* make a line plot then analyze it as a class. Find the average carbon footprint of our class.

*Examine life style and try to make one change to lower the class carbon footprint

* Students will make a slide presentation on google classroom and a flipgrid recording highlighting ways to reduce their carbon footprint.

- Student will examine and compare their own/ class data

Closure

Flipgrid video -Make one change to lower the class carbon footprint - rubric will be posted.

Homework

Extension: Students will record their travels for a few days - mode of transportation, distance, of the trip, number of passengers, and then possible alternative modes of transportation.

Follow up: Comprehension Reading/Questions - posted in seesaw

Videos/ Links used in lesson presentations

Standards

Sustainable Jersey for Schools

Sustainability Topic: Acquiring climate literacy – Learning climate science to understand the causes and consequences of global climate change; studying the impact of human activity on the climate and adaptations of man-made and natural systems in the face of climate change. Students can take action to address climate change by reducing their "carbon footprints."

Math: Measurement and Data 4.MD.B Represent and Interpret data

Mathematical Practices- 3 Construct viable arguments and critique the reasoning of others.

Science: ESS3.A: Natural Resources Energy and fuels that humans use are derived from natural sources, and their use affects the environment in multiple ways. Some resources are renewable over time, and others are not. (4-ESS3-1) ESS3.B: Natural Hazards A variety of hazards result from natural processes (e.g., earthquakes, tsunamis, volcanic eruptions). Humans cannot eliminate the

hazards but can take steps to reduce their impacts. (4-ESS3-2)