Lesson 2: Food Waste and the Environment

Common Core Standards:
Next Generation Science Standards:
NGSS.K.2.ETS1.1
Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

Target Audience:
Grades 2-7

Objectives:
- Demonstrate to students the energy, resources, and extensive steps it takes to produce food and to dispose of food waste.
- Discuss how the environment is being harmed through excessive food waste.

Key Words:
Environment, food, waste, pollution, resource use, water, production, disposal

Resources:
PowerPoint presentation
Poster paper
Markers
Whiteboard

Activities:
Class activity
Instruct students to break into groups of 4-5. Each group should grab a piece of poster paper and some markers. Half of the groups will be working on illustrating the steps food items go through prior to making it onto our plates (food production). Ask these students to diagram all the steps they think occur during the production and distribution phase. The second half of the class will diagram the steps that food waste goes through after leaving our plates (food disposal).

To make this easier, you may ask the students to diagram the steps for a certain type of fruit or vegetable. For example, how is an apple produced and what are the steps it goes through to make it onto our plate?

This should take around 10-15 minutes.

Once the students have completed their process, ask each group to briefly present their diagrams to the class. After each group presents, review the steps involved in both processes with the whole class,

specifically discussing steps left out (use the PowerPoint presentation and presenter notes), emphasizing the materials and resources involved in each step, as well as pollution caused by food transportation and disposal.

Discussion

Briefly discuss the pros and cons of purchasing locally produced foods vs non local.
Questions:

- What are ways we can reduce the environmental impact from our food system?
- Did you expect the processes of our food system to be so complicated? What were your expectations?
- What are solutions we can implement as a class?

Future Activities/Homework:

- Ask students to investigate where their produce comes from. Have students trace the item back to the source and determine what steps and resources were involved.
- Introduce composting and start a classroom composting project.
- Lessons on composting can be found at: https://healthyplanetus.org/healthy-growing/resources/garden-based-lessons/garden-based-lessons-and-curriculum/compost-lessons/