

What's in Your Waste?

5E Format

Subject / grade level: Science/ Grade 4

Materials:

Trash bags, tarp or mat, scale, gloves, waste audit worksheet, buckets (4-5)

NC SCOS Common Core Standards

CCSS.Math.Content.4.MD.A.1

CCSS.Math.Content.4.MD.A.2

Lesson objective(s):

- 1) Students will understand the importance of waste reduction.
- 2) Students will demonstrate data collection skills.

ENGAGEMENT (5-10 min)

Students will have a discussion about trash.

- What happens to our trash after we throw it out? Where does it go?
- Trash goes to landfills. Our trash goes to the New Hanover County Landfill. Some of the things we put in the landfill can actually be reused or recycled.

EXPLORATION (30 min) Waste Audit

- Lay out tarp or mat in the classroom and have students wear gloves for safety.
- Students use a scale to measure empty weight of the buckets.
- Students sort through trash and separate our plastics, paper, glass, metals, and compostable food items into buckets.
- Students weight each category of waste and estimate the volume, recording data on the Waste Audit worksheet.

EXPLANATION (10 min)

- What was in your trash? How much can be recycled? How much space in the landfill does our classroom save by recycling?

ELABORATION

- 1) Landfill Ban worksheet – use this simple word search as a homework assignment and conversation started about items that are legally banned from landfills in NC.
- 2) Students can do a waste audit at home, and share their information with the rest of the class Graph the data as a class and calculate how much waste is diverted away from the landfill.
- 3) “Where does it go?” worksheet – use this to emphasize the importance of recycling versus landfill-bound garbage. Students will learn the difference between linear and cyclical systems.

EVALUATION

- Use class discussion and/or writing assignment to determine if students understand the importance of recycling as a way to reduce waste in the landfill.
- Students summarize the data they collect on their worksheet, in a short paragraph form.

