



DRIVING QUESTION

What strategies can students and their families use to reduce the amount of garbage generated in their home?

PROJECT SUMMARY

The Industrial Revolution - with its shift to factories and tenement living - is considered the start of human-made environmental damage. We will connect the Industrial Revolution to the modern times by examining the current state of the environment and then having students devise strategies to reduce their own household waste. Students will track their families' waste generation for a week, create a plan to reduce the waste, and then test the plan to see how well it works. The students will work in groups to generate strategies for the plan, analyze the data from the tests, and videotape a final presentation outlining their work with an emphasis on what they learned.

REAL-WORLD CONTEXT

This generation of students is very concerned about many environmental topics -- climate change, pollution, renewable energy, etc. This project connects the beginnings of serious environmental problems (Industrial Revolution) with the effects we see today. This project also helps students see that they can make a difference even if only at a local level. The guest speaker from Wake Co Solid Waste talks about the cost of processing and storing waste (financially, in terms of land use and time) so efforts to reduce waste at a household level can have an impact.

PRODUCTS & AUDIENCE

Students shared products with the staff of Wake County Solid Waste Department.

STUDENT REFLECTIONS

- "The Scrum Board helped keep us on track and helped us envision what we needed to do next to ensure we are done on time."
- "I learned that there are some really easy ways to help the environment."
- "I definitely grew more in my social and cooperating skills so I can better assist in future projects."
- "I learned a lot about the technology we have here, using the prometheans, editing videos, and how to manage my time to create a product."

NC PORTRAIT OF A GRADUATE SKILLS GAINED

 **COLLABORATION**

 **COMMUNICATION**

 **ADAPTABILITY**

 **LEARNER'S MINDSET**
 **PERSONAL RESPONSIBILITY**

 **CRITICAL THINKING**

TEACHER REFLECTION

"This is the third iteration of the Rubbish Reduction Project. Each time I have made improvements based on feedback from my students and the PBL gets better each semester. My Fall 2025 students attacked this project with enthusiasm and focus. They effectively utilized their tech skills and imbued the project with creativity I had neither anticipated nor seen in previous semesters. I am very proud of the work my students did and grateful for the support of my VMCCA colleagues and the staff of Wake County Solid Waste."