Food Waste Educational Activities at the Canton Middle School

By: Gabby Anastasio, Elizabeth Newton, Nikki Borowiec, Miranda Wolf, and Ethan Adamson

Dr. Stefan Grimberg, Dept. of Civil and Environmental Engineering

Dr. Jan DeWaters, School of Engineering and the Institute for STEM Education
Why we wanted to work with the Canton Green Team

- **Teach students**
  - How to best use food waste
  - What they can do to help the food waste problem
  - How to live more sustainably
  - Relevant environmental issues

- **Inspire students to become more passionate about STEM**
Overview

 Lesson 1: Where Does Our Trash Go?
 Lesson 2: Anaerobic Digestion and Composting
 Lesson 3: Reducing Food Waste
 Lesson 4: Discussion and Trivia
Lesson 1: Where Does My Trash Go?

● Learning Objective:
  ○ 5 main ways to get rid of their trash and the benefits of each
    ■ Recycling
    ■ Composting
    ■ Anaerobic Digestion
    ■ Incineration
    ■ Landfill

● Activity Content:
  ○ Hands on Sorting game
Lesson 2: Anaerobic Digestion and Composting

● Learning Objectives:
  ○ What is anaerobic digestion?
  ○ What is composting?
  ○ What types of food waste can go into each?

● Activity Content:
  ○ BINGO game on all types of waste disposal methods which are:
    ■ Anaerobic Digestion
    ■ Composting
    ■ Recycling
    ■ Incineration
    ■ Landfill (this is a last resort)
Lesson 3: Reducing Food Waste

● Learning Objectives:
  ○ What is wasted when you waste food
  ○ How to use food before it goes to waste
  ○ What is the food waste hierarchy

● Activity Content:
  ○ Skribbl.io drawing game
Lesson 4: Discussion and Review

- Learning Objectives:
  -Reviewed and assessed what the students learned
  -Open ended discussion

- Activity Content:
  -Kahoot review trivia game
Discussing Attendance

- 36 students attended
  - Over the course of 4 lessons we averaged about 17 students per event
- 17 students attended only one lesson
- 10 students attended two lessons
- 6 students attended three lessons
- 3 students attended all four lessons

<table>
<thead>
<tr>
<th>Total 3/3</th>
<th>Total 3/10</th>
<th>Total 3/17</th>
<th>Total 3/24</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>21</td>
<td>10</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Overall</th>
<th>Total Unique Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>67</td>
<td>36</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Attending Once</th>
<th>Total Attending Twice</th>
<th>Total Attending Thrice</th>
<th>Total Perfect Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>10</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>
Overall results and observations

- Attendance was relatively consistent except one day because of scheduling
- There were a lot of questions in the first lesson, as the weeks progressed there were still questions but were more in depth
- In Kahoot, our first and second place winners had attended all 4 of our lessons, and our third place winner had attended 2 of our lessons
  - Shows that the information we taught was retained
Questions?

- **Contact Information:**
  - Gabby Anastasio, anastagd@clarks.on.edu
  - Nikki Borowiec, borowing@clarks.on.edu
  - Elizabeth Newton, newtonem@clarks.on.edu
  - Miranda Wolf, wolfmm@clarks.on.edu
  - Ethan Adamsou, adamsouem@clarks.on.edu

- **Advisors:**
  - Jan DeWaters, jdewaters@clarks.on.edu
  - Stefan Grimberg, grimberg@clarks.on.edu

- **Project Website:**
  - https://sites.clarks.on.edu/foodwaste/