

WEEK'S WORTH OF TRASH

Grades:

1 – 2

Time Allotments:

Teacher preparation: 30 – 60 minutes

Lesson and activity: 45 – 60 minutes

Closure to activity: 30 – 45 minutes

Vocabulary:

Recycling

Waste Disposal

Waste Reduction

Integrated Curricular Areas and Corresponding Core Curriculum Content Standards:

Science: **5.1:** (G4) A1-2, B1-2, C1-2

5.3: (G4) D1

5.10: (G4) B1

Language Arts: **3.2:** (G1) A2, A4, B1, C1-6 (G2) B1, C1-6

3.3: (G1) A1-2, C1 (G2) A1-4, B4, C1

Mathematics: **4.1:** (G2) A1

4.2: (G2) D3

4.4: (G2) A1-2

Content Objectives: Students will be able to –

1. Identify types of trash that are disposed of in various locations in a school setting;
2. Describe why certain types of trash are produced in greater quantities than others;
3. Compare why types and amounts of trash collected will vary as well as be similar between different students or student groups; and
4. Identify ways that amounts of certain trash items can be reduced.

Process Objectives: Students will –

1. Predict types and quantities of trash that can be produced in various school locations;
2. Maintain a data log of trash produced daily on a worksheet;
3. Create graphs reflecting the types and quantities of trash produced and collected daily; and
4. Analyze collected trash to determine which items or materials can be reused or recycled.

Materials:

For teacher's presentation:

- Flipchart paper and markers or chalkboard
- Collection of examples of trash collected from various locations in school (i.e., cafeteria, gym, classrooms, office, library, etc.)

For each student or group of students:

- Rubber gloves
- Garbage bags
- Worksheets
- Pencils
- Graph paper

For extension:

- Scale

Anticipatory Set:

- Ask students: *What items might be thrown away by people in the classroom? In the school's bathroom? In the school's cafeteria? In the school office? In the school library?* List the possibilities on the board or on flipchart paper. Suggestions might include paper, pens and pencils, envelopes, paper towels, food wrappings, napkins, tissues, coffee cups, cardboard boxes, food items, soda cans, books, magazines, etc.
- Have them then predict which of these items are thrown out “a lot”, “sometimes” or “hardly ever” and label each item on the list based on their guesses
- Explain that this lesson will focus on the trash that is discarded by people at school, including each of them

Teacher's Presentation or Modeling:

- Show students examples of the trash you've collected that had been thrown out at the school in various locations
- Explain that each student will be keeping a record on a chart of the trash they will throw out at school for one week. This chart will be turned into a pictograph at the end of the week that will show a tally of everyone's trash totals. Make sure the students understand the types of items they are to keep record of

Guided and Independent Practice:

- Provide each student (or team of students) with one copy of the worksheet to record the trash that each student will throw out while at school during the period of one week. Refer to the collected items or to the list to show students examples of what they should record on their charts
- Have students record their trash over a one-week period. This could be done once during the day or at various times throughout the day
- Once a trash item is recorded it can be discarded or recycled. The teacher should check in on the progress of each student or student group often throughout the week

Closure:

- Ask the students: *How many items did you or your team throw out daily? What was your total amount to throw out by the end of the week? Why do you think your daily amounts varied?* Have the students compare or graph their daily totals. Collect the papers and pin them up so that everyone's records can be examined
- *How do the results of you or your group compare to other students in the class?* Add up group or student totals for each day and graph them by day

- *How do the actual results of you or your group compare to the predictions you made at the beginning of the lesson for items that would be thrown out “a lot, “sometimes” or “hardly ever?”* Add up daily totals for specific common trash items that all students or groups collected and graph them by day. Ask students why these amounts might vary per day
- *In which school location was most of the trash generated by students in this class? Which school location generates the least amount of trash?*
- *Are there ways of reducing the amounts of trash that are produced?*
- *Can any of the items be re-used again by people? If so, how? Can any be recycled?*
- *What material most commonly makes up many of the items? (Paper) Can any of the paper items be reduced, reused or recycled?* Make sure students understand difference between “items” versus materials making up the items. For example, a pencil and Popsicle stick are not the same item but both are made of wood

Assessment:

- Predictions regarding what is produced (by location) in comparison with what is actually produced or collected by students;
- Counting and/or graphing of numbers of items collected each day;
- Analysis of the collected trash; and
- Solutions proposed to reduce trash amounts through reduction, reuse or recycling.

Extensions:

- Ask custodial staff if you can save the classroom trash each day and weigh it before discarding it. Record daily trash weight on a chart in the classroom. Do this daily for the entire week. At the end of the week ask the students to calculate the total weight of trash that was produced and figure the average amount/weight that would be produced per person (access to scale is needed); or
- Weigh each student’s trash daily (or student groups) and have them keep a log of their daily trash weight. Have them add up their total trash weight at the end of the week and compare their total with other students or groups. Have them show class trash weight totals on a graph

Safety and Clean Up:

- As a protection against cuts, scratches and dirt, gloves should be worn by students and adults when they are looking through trash or sorting it. If broken glass, needles or any other sharp or questionable objects are found students should notify an adult immediately regarding its disposal but the students themselves should not touch the object. When this lesson is completed the trash that can be recycled should be and the rest should be discarded properly

Additional Resource:

- **Creating Less Trash at School**
Minnesota Office of Environmental Assistance
<http://www.moea.state.mn.us/campaign/school/index.html>

Worksheet: *Week's Worth of Trash*

Student(s): _____

<i>Day of Week</i>	<i>Type/Amount of Trash</i>	<i>Location</i>
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		