

Waste and Consumption Field Research

Grades K-2: Personal & Home Audit



Resources developed by San Mateo County Office of Education's (SMCOE)
[Environmental Literacy and Sustainability Initiative \(ELSI\)](#) • Last updated April 2021

Purpose and Overview of Field Research Activity

Field Research is the collection of data and observations. In this type of field research, the purpose is to help students investigate what is going on with an environmental topic in their local context (home, school, or community). Parents and Educators, see *overview video to Field Research guides* [here](#). *Some pre-literate students may need help to complete this field research but can participate in discussions. You may want to use [books from this list](#) in your lessons to help explain complex concepts.*

- **What materials do students need for doing field research?** The most important thing students will need is this document outlining the field research activities. Depending on the focus it might also be useful to have a clipboard, or pencil/pen, paper or journal, gloves, binoculars, etc. **You can print this document to have students write on the page, or make a digital copy and help students type their answers into the boxes.**



- **How long will it take students to do this field research?** Field research tasks may range from 30 minutes → 3 hours depending on the topic and activities. Observations and data collection may also be done as a one-time collection, or pattern-based data collection may take place over multiple days. It is recommended that students break the field research up into multiple activities based on each section.



Background information for this Field Research Task:

The average American creates [4.5 pounds of trash](#) per day! This large volume of trash speaks to how much waste is generated just by going through our normal activities throughout the day.

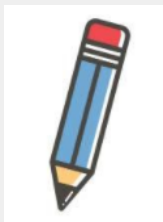
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PERSONAL WASTE AUDIT (Teacher copy)



Step 1: Students use the waste journal to track what is thrown away for one to three days.

Materials: Printed food journal OR field journal, pencil, adult help



Directions: Students complete the chart below to track the waste they generate over one to three days. An adult can print the chart or students can copy it into their journal or onto paper.

Students *should*:

- Make descriptive observations



Students *should not*:

- Collect the waste
- Touch waste without wearing gloves or thoroughly washing hands afterward



Glossary

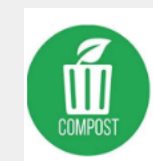
- Waste Journal: A record of waste generated over a period of time



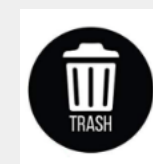
- Recycle: Items that can be converted into new items in a commercial facility. Examples: glass, aluminum cans, clean paper



- Compost: Items that can be sent to a commercial composting facility. Examples: yard waste, food scraps, food-soiled paper

























- Trash: Items that are sent directly to the landfill. Examples: soft plastic bags, wrappers



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PERSONAL WASTE AUDIT: WASTE JOURNAL

Date	What did I throw away? <i>Write or draw the item</i>	Recycle, Compost or Trash? <i>Circle the item destination.</i>
Example: 3/19	 banana	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  TRASH </div> <div style="text-align: center;">  RECYCLE </div> <div style="text-align: center;">  COMPOST </div> </div>
		<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  TRASH </div> <div style="text-align: center;">  RECYCLE </div> <div style="text-align: center;">  COMPOST </div> </div>
		<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  TRASH </div> <div style="text-align: center;">  RECYCLE </div> <div style="text-align: center;">  COMPOST </div> </div>
		<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  TRASH </div> <div style="text-align: center;">  RECYCLE </div> <div style="text-align: center;">  COMPOST </div> </div>
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HOME WASTE AUDIT



Step 1: Waste Walk-Through

Materials: Printed journal or field journal and pencil, adult help if needed.



Directions: Complete the Waste Walk-Through Worksheet

You should:

- Make descriptive observations



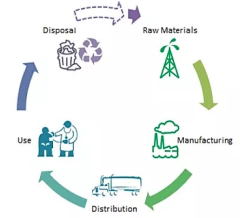
You should not:

- Collect the waste
- Touch waste without wearing gloves or thoroughly washing hands afterward



Glossary

- **Waste Stream:** How waste moves through an area from its creation, to its use, and finally to its disposal.



- **Bin:** A container or receptacle for collecting waste. Trash cans are an example.







HOME WASTE AUDIT - PAGE 1

	Trash 	Recycle 	Compost
Tally the number of bins in your home. Example: 			
Draw the OUTSIDE of the <u>biggest</u> bin you find: 			

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HOME WASTE AUDIT - PAGE 2

	Trash  <small>LANDFILL</small>	Recycle  <small>RECYCLING</small>	Compost  <small>ORGANICS</small>
Draw what is INSIDE one of the <u>biggest</u> bin you find: <i>Examples</i> 			
Where did you find the bin? <i>Can be found in more than one place</i>	<input type="checkbox"/> Kitchen <input type="checkbox"/> Bathroom <input type="checkbox"/> Bedroom <input type="checkbox"/> Living Room <input type="checkbox"/> Outside	<input type="checkbox"/> Kitchen <input type="checkbox"/> Bathroom <input type="checkbox"/> Bedroom <input type="checkbox"/> Living Room <input type="checkbox"/> Outside	<input type="checkbox"/> Kitchen <input type="checkbox"/> Bathroom <input type="checkbox"/> Bedroom <input type="checkbox"/> Living Room <input type="checkbox"/> Outside
How full was the bin?	<input type="checkbox"/> Very Full <input type="checkbox"/> Full <input type="checkbox"/> Not Very Full <input type="checkbox"/> Empty	<input type="checkbox"/> Very Full <input type="checkbox"/> Full <input type="checkbox"/> Not Very Full <input type="checkbox"/> Empty	<input type="checkbox"/> Very Full <input type="checkbox"/> Full <input type="checkbox"/> Not Very Full <input type="checkbox"/> Empty
Other Observations:			

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Reflection on Personal and Home Waste Audit

⇒ Discuss, draw, or write responses in your field journal to the following questions.

A) What did you notice about the waste you collected for your waste journal?

B) What can we do to better sort the waste in our home? (Examples: sort trash, reduce)

C) How could you reduce the amount of waste made in your home?

D) How did it feel to observe (see) the waste in your home?

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You've Completed the Waste and Consumption Field Research!



Great job! You've studied your own personal waste habits, performed a waste audit of your home, and reflected on the waste and consumption system. Reducing our consumption, the amount of waste we produce, and diverting it from landfills are steps we can all take to reduce our ecological footprint and the greenhouse gas emissions that enhance climate change. Discuss the lessons you've learned from this Field Research with the folks in your life and implement solutions into your daily activities to reduce the impact you have on the waste and consumption system. Check out the [resources curated by the San Mateo County Office of Education](#) to explore more aspects of the waste and consumption system.