

Lunchroom Recycling Plan

Lesson Plan

Adapt this one-period **lesson plan** for any grade level and follow it with a simple and powerful **service project** for Earth Day. The **reflection** brings learning and service impact together.

Teacher Preparation: Seek approval for a lunchroom waste audit ahead of time from school administrator, as well as coordinate with the custodial staff. Also contact the community offices or local waste management to find out what materials your community/school is able to recycle.

Anticipatory Set: (10 minutes) Write this statement of purpose on the board: I can organize and implement a school-based recycling plan based on a school-wide waste audit.

Show a video about how recycling works.

- For older students (8 min): <https://www.youtube.com/watch?v=b7GMPjx2jDQ>
- For younger students: <https://www.youtube.com/watch?v=VIRVPum9cp4>

Questions for discussion:

- What do you recycle at home? Is it all mixed together in one bin or do you separate it?
- What are some things that can be made with recycled metals, paper, and plastics?
- Why would we want to reduce our waste? Why would we care if we don't see it anymore?

Part One: (5 min.) Set the stage for organizing a recycling program at school.

1. Discuss benefits of reducing waste at school and how philanthropic activities (voluntary action by the students) can bring about social change and a better world.
2. Give examples of social activists, such as Rachel Carson and Bill Nye the Science Guy, who are philanthropists because they change attitudes by sharing their time and talent for the common good. Define *philanthropy* as "using our time, talent, or treasure and taking action for the common good."

Part Two: (10 min) What are our school's practices related to waste, and where can we improve?

1. Ask the students where they have seen waste and a need for recycling at school.
2. Display a visual with items that can and cannot be recycled. Share literature about what recyclable items your community accepts, and point out why some items cannot be recycled (poisons, mixed materials, Styrofoam, food saturated materials, dirty towels, tissues, used paper cups, and lunch trays) <https://www.youtube.com/watch?v=eqagBli9StM>
3. Explain that they will conduct a school waste audit to help them understand where improvements in recycling are needed. The information they gather will help them plan their service plan of action to establish a school-wide recycling plan.

Part Three: One-Day Waste Audit

Divide your class into teams to carry out the waste audit in the school lunch room:

- collecting team: before lunch sets up four labeled trash cans to collect wet and dry waste
- analysis team: determines the sorting criteria (paper, cardboard, plastic, compostable, etc.)
- sorting team: sorts all waste per criteria on two large tarps (one for dry/one for wet)
- weighing team: after lunch, weighs all of the garbage cans and brings to sorting area

Add or combine teams based on the number of students in your class.

Waste Collection Notes:

- The collecting team should stand near the four bins to guide students on how to sort their trash.
- After lunch, the collecting team may collect wet and dry waste throughout the building.



- The sorting team must wear gloves, goggles, and spare clothes to avoid contact with germs.
- Once sorting is complete, the analysis team weighs and counts material in each category.

Take pictures throughout the process to share with your school community (also a great thing to use after a recycling program has been implemented in your school).

Younger student variation: Collect only dry waste materials from a single classroom for one week.

Older student variation: Complete a week-long waste audit.

Waste Audit Report

Students analyze the collections from each category and graph the results:

- What percentage can be recycled? $\frac{\text{Total of RECYCLABLES}}{\text{Total of recyclables and trash amounts}} \times 100 = \%$
- What percentage is actually “trash?” $\frac{\text{Total of TRASH}}{\text{Total of recyclables \& trash amounts}} \times 100 = \%$

Reflect and evaluate the next steps.

1. What can we improve and how can we educate others to reduce/re-use/recycle materials?
2. What are our next steps to reduce the amount of waste in our school, community, or households? Can we set a goal for a waste-free lunchroom?
3. What is one thing we can do tomorrow to lessen the amount of waste in our school?

Composting Extension

The wet waste can be composted and used to fertilize a school garden. Students may learn more about what is needed to add a compost bin to the lunch room and then manage the compost so it doesn't smell and so it turns into fertilizer. Note: meat scraps and bones cannot be composted.

Service Project for Earth Day

This service project, adaptable for student age and voice, may be completed on subsequent days.

Project Overview: Students share the results of the audit, collect information about student attitudes, and plan a project to reduce waste and raise awareness of things to do to reduce waste at school.

Procedure:

1. Students conduct a school-wide attitude survey about recycling at school. They write questions to find out whether it is wanted and what information and materials are needed to get participation. Share the survey, collect responses, and analyze the data to inform next steps.
2. As a whole group, brainstorm ways to reduce waste in the lunchroom, such as pack lunch items in reusable containers instead of plastic bags, cloth napkins from home rather than paper, only taking the food you are going to eat, and asking the lunch room to serve on compostable trays.
3. Make and carry out a recycle plan in the lunchroom with bins and education about processes.
4. Students create posters and informational flyers. Put them up around your school, on social media, and in the community to teach students about recycling and communicate a plan.

Reflection:

Follow the service project with a brief reflection in writing, in partner discussions, and whole-group discussion.

1. Discuss observations of the impact of the campaign. How did other students respond? Did the project impact attitudes and practices of the class? Of the school? Of families?
2. Share the reflections with Learning to Give and a national audience. The TeachOne initiative connects teachers across the country with others who completed this project.

Follow-up: Discuss what they'd like to do next to continue their recycling efforts.

