

School Waste Audit

Recommended Key Stage: 1 and 2

Recommended group size: 6- 30 children

Duration: 30mins- 1hr 30mins depending on amount of waste and the follow up activities chosen

Overview: A waste audit helps children recognise what waste is produced in the school environment. Results can be used to formulate a waste action plan and encourage everyone in the school to waste less and recycle more.

Learning Objectives:

- ★ Investigate the different types of waste that are made in school
- ★ Monitor volumes of waste
- ★ Record and analyse waste data
- ★ Explore waste reduction strategies
- ★ Understand the importance of good recycling

Key Vocabulary:

- Reduce
- Reuse
- Recycle
- Waste
- Rubbish
- Audit

Curriculum Links:

Science- Materials and their properties

- ★ Sorting objects into groups by properties
- ★ Recognise and name common materials (metal, wood, plastic, paper) and that some are found naturally
- ★ The role of decomposition in recycling

Maths

- ★ Weights and measures
- ★ Percentages
- ★ Analysis

Citizenship- Preparing to play an active role as citizens

- ★ Research, debate and discuss topical issues
- ★ How to look after and improve their local environment.

Preparation:

- ★ Identify an 'average' school day on which to collect and audit your waste (avoid events, end of term clear outs and when children might be out of school)
- ★ Let all staff know the audit is taking place
- ★ Carry out a risk assessment
- ★ Advise parents that the activity will be taking place and encourage them to provide children with suitable clothing
- ★ Ask the site manager / caretaker to arrange for the collection of 1 days general waste from the entire school.
 - ★ Do not include recycling that has already been separated into a recycling box, bin or bag
 - ★ This should include food waste, playground bins, offices and staff rooms
 - ★ Label where the waste has come from
 - ★ Keep bags of food waste separate from lunch halls separate
 - ★ Remove any sharp objects.

Resources provided by Test Valley

Borough Council:

- ★ Spring balances can be borrowed from Test Valley Borough Council on request
- ★ Waste Audit recording sheet

Resources to be provided by school:

- ★ Bagged rubbish
- ★ Bin bags
- ★ Carrier bags or small bags for sorting
- ★ Spring balances/ Newton meters
- ★ Ground sheets/ floor covers
- ★ Clipboards
- ★ 1 pair of gloves per child

Resources to be provided by the children:

- ★ Old clothes / overalls

Outline of activities:

Introduction

- ★ Explain that the lesson will involve looking through the schools rubbish from the day before to find out just how much is wasted.
- ★ Explain the health and safety issues related to this type of activity
 - ★ Gloves must be worn when touching waste
 - ★ Do not touch your face with the gloves on
 - ★ Alert an adult to anything sharp
 - ★ Wash hands thoroughly afterwards
- ★ Share the recording sheet with children and explain what they will have to record
- ★ Ask the children if there is anything they expect to find during the audit
 - ★ Where might the most paper waste comes from
 - ★ From where they think the most food might be wasted
 - ★ Do they think they might find some recyclable items in the general waste bins?

Activity

Start with the whole class weighing bags of only food waste- This will explain the audit process and encourage children to use the recording sheets provided.

- ★ Separate out all bags that only contain food waste e.g. bags from the lunch hall and fruit and vegetable snacks.

Timings:

10 minutes

30-40 minutes

- ★ Ask a child to hold a spring balance whilst another child places the bag onto the hook and reads out the weight of the bag
- ★ Log the results in grams
- ★ Dispose of the waste in the usual manner

Continue the audit by splitting children into groups and providing them with a sorting area, bags, gloves, recording sheets and spring balances

- ★ Each group should empty the contents of one bag of rubbish at a time onto the covered floor.
- ★ Sort the rubbish into the different types of waste shown on the recording sheet (these can be sorted straight into carrier bags or smaller bags or put into bags for weighing)
- ★ Using a spring balance, weigh each type of waste and log the results on the recording sheet
- ★ Once all items have been weighed, transfer all waste back into the original waste bag or recycling container and re-use the smaller bags for the next location
- ★ Continue until all bags have been opened and recorded
- ★ Dispose of the waste and recyclables in the usual manner

Results and Analysis

Depending on the maths ability of the children, this section may need to be conducted at a later date to allow for the details to be put into a spreadsheet and results calculated on their behalf.

- ★ Use the information collected to calculate the daily, weekly and annual waste totals for the whole school
 - ★ Multiply daily totals by five for the weekly results
 - ★ Multiply weekly totals by 38 (the average number of weeks per year spent at school)
 - ★ Work out the percentage of different types of waste produced
- ★ Compare waste data from different areas around the school
- ★ Identify areas where waste is at its highest or lowest levels
- ★ Identify areas where recycling may be ending up in the general waste bins

Plenary Activity

- ★ Ask children to share their observations from the audit
 - ★ What were the most common types of waste?
 - ★ Did they find any recycling in the general waste bins?
 - ★ Where there any areas within the school that they were expecting different results from?

5–10 minutes

Follow up activities:

- ★ Use the information from your waste to plan or improve recycling in the school
- ★ Write an action plan to encourage pupils and adults to recycle more
- ★ Research alternative options for dealing with waste in school- composting food waste, clothing collections, arts and crafts projects.
- ★ Present your findings to the rest of the school through an assembly or newsletter
- ★ Repeat the audit after you have implemented points in the action plan

External links and information:

- ★ Waste audit recording sheet

www.testvalley.gov.uk/recyclingstars