

## Activity plan: Packed Lunch Waste Audit

For schools that are recycling well, it is time to move up the 'waste hierarchy' and consider ways to **reduce** and **reuse** waste. This hands-on audit allows pupils to:

-  investigate the waste generated by pupils' packed lunches
-  generate an action plan to involve pupils and their families in reducing waste
-  produce data to share with the rest of the school on your **Eco Schools**<sup>®</sup> noticeboard

The audit takes about 1.5 hrs during an afternoon, and can be adapted for any class from Y2 upwards or for your Eco Committee.

Following the audit, your Eco Committee / School Council should lead a whole-school campaign to reduce packed lunch waste, involving both pupils and parents, before repeating the audit to see what impact they have had. This is a great way to address aspects of the **Eco Schools**<sup>®</sup> 'Waste' topic, with strong links to 'Healthy Living'. It also incorporates your **Eco Schools**<sup>®</sup> work into the curriculum, since pupils will be using a range of mathematical skills in a practical context.



St. Margaret's Primary School

### Learning objectives

Children should learn:

-  that reducing waste should be considered before reusing and recycling
-  that people can reduce the amount of rubbish they create by considering what they buy
-  to ask and respond to geographical questions
-  to collect and record evidence to answer questions

There are also plentiful links to the maths curriculum: number, data handling, using force meters and percentages as appropriate to the year group.



Somerhill Junior School

### Preparation

**Time required:** approx 1½ hrs

**Space required:** a normal classroom

The audit needs one day's waste from all pupils' packed lunches, including uneaten food. The waste should be collected in strong bin bags (or similar). Ensure that the packed lunch waste is not mixed with waste from school meals, and that the adults who supervise pupils at lunch time know what is happening. Members of your Eco Committee could act as 'monitors' in the dining hall, to ensure that everybody remembers to put their waste in the correct bin(s).

### Equipment required (for a class of 30 pupils working in 5 groups):

-  30 pairs of gloves (ideally reusable gardening gloves that can be washed after the audit; disposable gloves can be used if these are not available)
-  antibacterial hand soap and cleaning spray; cloths (e.g., j cloths)
-  5 large tables; 5 results sheets; 5 carrier bags; weighing scales (hanging if possible)
-  25 sheets of paper approx A3 size (preferably used on one side) and felt tip pens

### Before conducting the audit:

- 1) Download the packed lunch waste audit **results sheet** from the BHee website. This is a Word document, so can be edited to suit your needs before printing one per group.
- 2) Download the packed lunch waste audit **spreadsheet** from the BHee website. This should be minimized on the IWB for use at the end of the audit.
- 3) Source a landfill site image to display on your IWB (Interactive White Board) during the introductory whole-class discussion.

## The audit

### Whole class discussion: the problems with 'rubbish'

- Where does our rubbish go when we throw it in the bin? Show / discuss image of landfill site. In 2011/12 people in England landfilled 9.6 million tonnes of waste, approx. 180kg per person. (An average 10 year old boy weighs 30kg; a family car weighs a tonne.)
- What are the problems with landfill sites? (They are filling up; resources are wasted etc.)
- Waste from Brighton & Hove is now sent to an energy recovery facility, where it is burnt to generate electricity. This is preferable to landfill, but it is still important reduce, reuse and recycle (the 3Rs) as much as possible to make the best possible use of the planet's raw materials. The first of the 3Rs, and the most important, is **reduce**. Today's investigation will help the school to make a plan to **reduce** its waste.

### Whole class discussion: introducing the audit

- How much rubbish is left after pupils have eaten their packed lunches? Weigh the bags of waste, and enter the total into the spreadsheet, which will calculate a total for a school year.
- To work out ways to **reduce** this waste, we need to find out what is in the rubbish bags. Pupils predict what materials they will find, and which there will be most of.
- Explain that each group is going to sort a pile of rubbish into the following categories:  
paper    cardboard    metal    plastic    food    other
- Discuss the potential risks associated with this activity, including emphasising the importance of wearing gloves at all times while handling the waste. Pupils should also be told to keep their hands away from their faces while wearing the gloves.

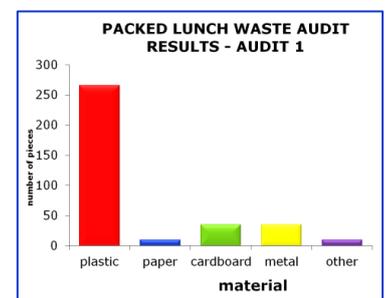


### The activity

- Divide the pupils into mixed ability groups.
- Pupils label the A3 sheets with the words: paper, cardboard, metal, plastic and other. They arrange their sorting sheets around the table, and add a carrier bag for food waste.
- Pupils sort the waste, count the number of pieces on each pile, and record their results.
- The carrier bag of food waste is weighed.
- Pupils tidy up, and clean the tables using antibacterial spray. (It is recommended that an adult uses the spray, and the pupils wipe the tables.)
- Pupils take off their gloves and wash their hands using antibacterial soap.

### Whole class discussion: sharing and interpreting results

- The results from each group are entered into the spreadsheet.
- Display the bar chart / pie chart. Were pupils' predictions about the materials in the waste correct?
- Identify key actions that children / parents should take to **reduce** packed lunch waste. (E.g., reusable drinks bottles instead of single-use containers; reusable boxes instead of cling film; avoiding heavily packaged 'snack packs'.)
- Decide how to spread the message to children and parents. (E.g., assemblies, newsletters, school website.)



Audit results from Somerhill Junior School

### After the audit

- Update your **Eco Schools** action plan
- Share your results and plans (e.g., in assembly, on your **Eco Schools** notice board)
- After several weeks of a high-profile campaign, do another audit.
- Compare the results of your two audits, and share your successes with the whole school.