



Food Waste

Why is food waste such an important issue?

There are many reasons why we should not waste food; environmental, financial, and ethical. We need to think of food waste in the 3Rs framework – how can we reduce food waste and reuse or recycle our leftovers and scraps?

When food waste is dumped in landfill, it breaks down to produce methane, a greenhouse gas that is 25 times more potent than carbon dioxide. This has meant that the food supply chain can contribute up to 25% of the greenhouse gas emissions of a region.

Food waste is a problem close to home too.

**LOVE
FOOD
hate waste**

We throw away 7 million tonnes of food and drink from our UK homes every year, the majority of which could have been eaten. It's costing us

£12.5bn a year. Almost 50% of the total amount of food thrown away in the UK comes from our homes. Visit Love Food Hate Waste for more information and ideas on how to waste less food by shopping smartly, storing correctly and making the most of our leftovers.

www.lovefoodhatewaste.com



DID YOU KNOW?

Northern Ireland Food Waste Legislation

From 1st April 2016, if your school produces 50kg or more of food waste per week, you must separate it from your landfill waste and have a separate collection in place to dispose of it. From 1st April 2017 that allowance will drop to 5kg of food waste per week.



April 2016



April 2017



Food Waste Case Study

School:

Kesh Primary School, Enniskillen

IN KESH PRIMARY SCHOOL WE ARE CURRENTLY WORKING TOWARDS OUR 5TH GREEN FLAG. OVER THE LAST COUPLE OF YEARS WE HAVE BEEN WORKING ON OUR MAJOR TOPIC; REDUCING FOOD WASTE IN OUR SCHOOL.

Q: Before beginning this project was the school experiencing problems or issues with food waste?

A: Having taken part in Eco-Schools for nearly ten years, we have covered the majority of topics to complete the Eco-Schools process. As a school we looked at all areas to see which topic we needed to develop further. As an Eco friendly school, working towards our 5th Green Flag, we have many strategies in place for maintaining and improving our waste management. We felt we had quite a good recycling system in place - reusing and recycling; cardboard, paper, plastic (bottles/milk bottles), batteries, milk lids, ink cartridges and reusing our school uniforms.

However we realised that even with our current recycling system there was still a large amount of bags going into our general waste bin. When our Eco Team carried out a waste audit it was discovered that food waste was quite high. Pupils then monitored food waste in classrooms and at lunch time to get an idea of how much food was being thrown into our general bins. Large amounts were being put into the bin from the kitchen from food preparation for our school dinners.

This was an area that our team felt they could tackle after some research and help from the waste team at our local Council. The decision was made that the most effective way to deal with this was to compost our fruit peelings from snack time and the vegetable peelings from our school kitchen.

Pupils get a visit from Fermanagh and Omagh District Council's Waste Bus and learn all about the 3Rs.



Pupils labelling reused tubs from the kitchen to use as class compost bins.

Q: Have you completed a whole school event/project to explore the 3Rs of waste management - Reduce, Reuse, Recycle?

A: After we carried out our waste audit we decided to contact Fermanagh and Omagh District Council to visit our school and offer advice. They led three assemblies for each Key Stage discussing and reminding pupils of the importance of reducing waste. .

Pupils watched a short video to learn facts about landfill and carried out practical activities sorting rubbish into the correct bins. Ann Marie Cox, from the Council, then led a session about food waste and how we can reuse our fruit peelings and vegetable waste by composting. The Council very kindly give us our first



Below: Pupils weighing the compost collected in class and the measurements were used for class numeracy tasks.



Above : Pupils in KS2 studied the composting process as part of their decomposition topic in class

Q: Other than composting your waste what other methods or projects have you implemented to tackle food waste?

A: During lunch time we already have strategies in place to reduce food waste and general waste. Pupils who take packed lunch are asked to take home all their left overs not only to reduce the waste but also to allow parents to observe what they are eating. We also encourage pupils to take home packaging and wrappers from anything that they eat from their packed lunch.

Our kitchen supply healthy snacks at break time to reduce the amount of packaging from crisps and sweets in our bins. During Healthy Living Week pupils are encouraged to eat as much as they can from their plates so they have very little waste to throw in the bin. Those who meet the Lunchtime challenge receive a small reward sticker. This encourages pupils to think about what they throw in the bin for the rest of the term.

compost bin. From here on the pupils took charge, especially the Eco Team. They collected and reused blue plastic tubs from the kitchen which we use in each classroom as compost bins.

There is a whole school approach to collecting our fruit peelings at break and the kitchen staff also got involved by composting their vegetable and fruit waste. Pupils created a rota for each class to be responsible for gathering up the compost every day and to place it in our large compost bin at the back of the school. The Eco Team was responsible for the bins in their class and reminded the class on duty if they had not collected the bins on a regular basis.

Pupils monitor and weigh the food waste collected over a week's period each year to see if we were improving, and we are. We currently have 2 full compost bins. Pupils have been monitoring the compost process, mixing it up on a regular basis to allow air in and using newspaper and grass cuttings to help dry it out. It is a long process but we have one bin ready as the waste has decomposed.

Each class is responsible for a flowerbed in the garden. The pupils, with help of adults, have used the compost from our bin and mixed it with the soil in preparation for planting new seeds and vegetables in the spring.

DID YOU KNOW?

For advice and help on how to compost contact your local Council – details are available on the Eco-Schools website under the partners tab.

www.eco-schoolsni.org

Successful composting requires a good 50:50 mix of wet materials (e.g. peelings and fruit) and dry materials (e.g. dry leaves and cardboard). Visit the Rethink Waste website for more useful tips on home composting

www.rethinkwaste.org/reduce

More information on the food waste legislation can be found on the DOE website

www.doeni.gov.uk



Our school began growing small amounts of fruit and vegetables which are cooked and sampled by the pupils in each class to encourage experiencing new tastes so that they don't waste as much food at lunch time. Our school also promotes European Week for Waste Reduction.

Q: Can you give an example of how working on food waste has complemented curriculum work already on-going at the school?

A: The collecting of food waste for our compost bins goes hand in hand with science investigations with particular reference to a Key Stage 2 decomposing topic. Each class were given their own compost bag filled with fruit and vegetables to monitor over a 6 week period. It allowed pupils to make predictions about what they thought might happen and describe the changes it may face. Key Stage 2 pupils experimented with other materials to help recognise what decomposes and what does not.



Kitchen staff using the compost bins.

Pupils gather information and recorded how much food waste was found in our waste bags and created information tables for pupils to read. The pupils also weigh the compost on a daily basis and this data was available to classes to create their own charts and use within numeracy topics including data handling and measurements. Working on this topic encouraged pupils to develop their public speaking skills especially members of the Eco Team, who were able to share information with the whole school and talk confidently about this food waste topic.

Our school has been awarded Level 1 Fair Trade in Global Learning. Teachers were able to embed our food waste topic into the curriculum by teaching pupils about food shortages in developing countries and the links to growing their own fruit and vegetables. Pupils are encouraged to learn about their environment and how to be eco-friendly. All pupils were able to learn about how to reduce waste to landfill and ways to improve the growth of plants in our flowerbeds by improving our soil thanks to our compost heap.

Q: How did you co-ordinate with other teachers/non-teaching staff to ensure a whole school approach?

A: The Eco-Committee led a school assembly to inform the whole school (pupils and staff) about our decision to tackle food waste and the purpose of compost. The staff also worked together to encourage participation and involvement in our Eco-School food waste topic.

Everyone was willingly to try their best, and advice and expertise was shared amongst each other on how to lead this topic effectively.

At the beginning it was hard for every class to remember to collect the compost. Thankfully though the pupils took the responsibility to remind their teachers if they were on duty. The teachers and non-teaching staff were aware of the importance of this topic and it got easier, by changing our rotas - one class per month, to collect compost on a daily basis. All teachers were willingly to incorporate compost and food waste into their lessons to develop the pupil's knowledge on this topic area. Teachers ensure that they always have a compost bin available for pupils in their class to use and each class are responsible for a flowerbed in our school grounds. The caretaker ensures the lids are on the bins at all times and the kitchen staff use the compost bins every day too to help reduce food waste from their department.

Q: How did you encourage all pupils to participate in this incentive? How did the pupils (including the Eco-Committee) have ownership of this project?

A: The Eco Team carried out their own independent research on the purpose of compost heaps and how to create their own. They shared their information with the whole school as they became passionate and interested to see how compost can be created. The Eco Team went to each classroom and explained the reason behind our reduction in food waste and what we hope to do with our compost.

Pupils from Years 4-7 were responsible to ensure the compost class bins were emptied on a daily basis by following a whole school rota created for each year. The Eco Team and each class took turns aerating



Above: Eco noticeboard explaining the composting process and why it is important.

the compost bins and monitoring the decomposition process. A display board has been created so that pupils were reminded of our main topic area and it contains information about how we are trying to reduce food waste. The Eco Team in addition created picture collages to help remind pupils to put their fruit peelings into the class compost bins and to show the rest of the school the process so far.

Lastly the Eco Team also monitored the compost process by weighing how much food waste was been used to create compost and closely monitored what was being put into our compost bins to ensure the school were achieving their potential.

Q: Did you receive any support or resources from parents, staff or outside agencies?

A: Fermanagh and Omagh District Council came to our school to give us a talk about waste management with a focus on food waste. They supplied us with one large compost bin. A parent gave us our second bin. Mrs Braddick (non-teaching staff) shared her expertise by helping and guiding us on how to make compost

and helped the pupils to monitor and develop the process. Some parents offered their tools to help us achieve our goal.

Q: Did you encounter any problems and, if so, how did you overcome them?

A: It was difficult at the beginning to ensure the bins were emptied daily as the classrooms can get very busy. If bins were not emptied they did begin to smell which created a problem. Over time with constant reminders from our Eco Team and of course the Eco-Coordinator the bins were emptied. Pupils were encouraged to remind their teachers so that it gave them more responsibility.

We did find that changing the collection of the bins to a different class made it difficult to remember whose turn it was. We adjusted that so each class did it for a month which was definitely more efficient and easier for each class to remember. In our second year we have definitely seen an improvement in the amount of waste in our compost bins.

Whilst stirring the large compost bins we did discover items that should not have been there. The Eco-Committee made posters and spoke in assembly to remind pupils that it is only food waste that must be put in the compost bins. Due to poor weather conditions during the winter, storms sometimes blew the lids off our compost bins, which made our compost



Left: Pupils emptying the class bins into the outside compost bin.



Below: Pupils regularly mix the compost bins to help the composting process.



Far left: Poster reminding pupils what to compost.

Left and below: Pupils of Kesh Primary School make good use of the compost they have produced in the school flower beds.



very wet and soggy. We actually had to tape up one of bins to try and dry it out and we added dry materials such as egg cartons, newspaper and grass cuttings from our other bins to help improve it.

We had one compost bin nearly ready to use, but during a rota switch of pupils collecting the compost, the waste was put in the wrong bin by mistake. Therefore signs had to be created to remind pupils of which compost bin to use.

Q: What advice would you offer to schools undertaking the Waste topic? Do you have any suggestions for other teachers seeking to implement a composting system?

A: The food waste topic is very beneficial to pupils and invaluable to the school. Time, preparation and effort is required to develop a whole school approach. Pupils need to take responsibly to collect and monitor the compost on a daily basis. It is a time commitment as we are currently in our third year of compost collecting and are only now reaping in the benefits. It is useful to have someone on board with knowledge and expertise of how to compost.

The reduction of food waste is the way forward in our local community, as homes in our local community, have just received their own food caddy for each

household. Pupils are now able to share their new found knowledge and understanding of how to reduce food waste in their home life.

Q: How have the school/pupils benefited from this activity?

A: Pupils were very engaged because they could see from first hand experiences how the process develops. Pupils were able to learn about the importance of compost in our soil for plants. They developed an interest in growing plants, vegetables and fruit in the new soil. Pupils were very engaged with the topic and they were able to take charge of their own learning. They were able to see the benefits to the environment by reducing and reusing food waste. ■