



**NIGHTINGALE  
SCHOOL**

# CASE STUDY

## Nightingale Primary School (Hackney)

Six workshops on food waste prevention, food waste recycling and healthy and sustainable eating, as well as one campaign day (focused on food waste reduction), were run for Year 4 pupils (eight to nine-year olds) at Nightingale Primary School in Hackney.

The workshops were delivered across five weeks during November and December 2017 by Groundwork London as part of the TRiFOCAL 'Small Change, Big Difference' campaign.

### Highlights:

- Pupils improved their knowledge of all three key messages (as measured in pre- and post-intervention surveys).
- The area of greatest learning (healthy and sustainable eating) was also the part of the workshops that pupils reported to be their favourite (smoothie making).
- Pupils developed a positive attitude towards reducing food waste and made behaviour changes in the home.
- Parental involvement exceeded the expectations of the school.

### Background

Nightingale Primary School is situated in the heart of Hackney and has just over 230 pupils with an average of 30 per class.

The workshops consisted of 27 pupils in total, all from Year 4. The school was unique in this respect, as other schools selected pupils from Year 5 for their workshops. This followed advice from the Head Teacher who suggested pupils at Nightingale were mature in their thinking.

Prior to the workshops the school stated it had not yet done anything to address healthy and sustainable eating or the topics of food waste and recycling.

### Objectives

The three key messages of the campaign were:

- 1. Preventing avoidable food waste**
- 2. Recycling food waste**
- 3. Eating healthy and sustainable foods**

The specific objectives of the workshops were for pupils to: increase their knowledge of the key messages, adopt positive attitudes and behaviours around the key messages; and, spread their learnings to other pupils, parents and staff.

### Activities

Using a co-production model, workshops were written by Groundwork London staff with teaching experience and reviewed by primary school teachers. The workshops focused on pupil engagement involving interactive learning activities<sup>1</sup> around food waste and healthy and sustainable eating.

<sup>1</sup> See accompanying [Fact Sheet](#) for comprehensive list of workshop activities.

In addition, the workshops aimed to empower pupils to design [Figure 1], promote and run their own campaign to endorse the key messages. The pupils and staff chose the healthy and sustainable eating campaign as a good match for Nightingale.

At the final workshop, results were reviewed; pupils' knowledge, attitudes and habits were assessed; and, learnings were shared with another school within the TRiFOCAL project.

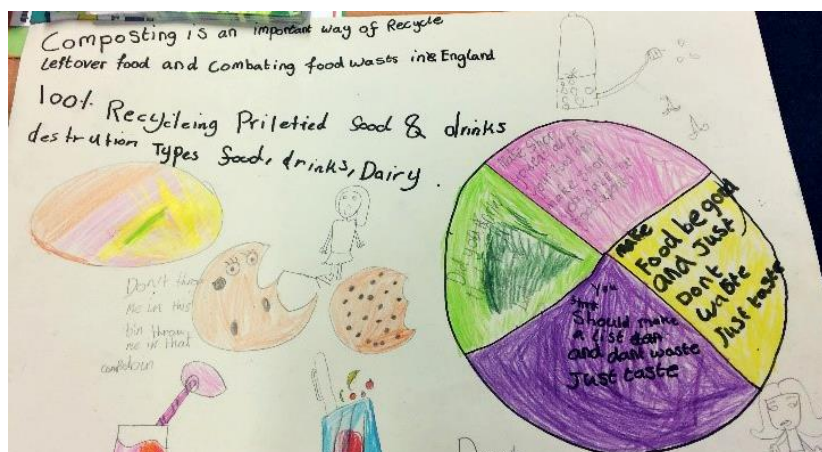


Figure 1 – A food waste poster created by a pupil at Nightingale Primary School

## Results

The project was evaluated using multiple tools: a weekly lunchtime food waste audit, a questionnaire completed by teachers, focus groups with parents (exploring the extent to which messages were reaching home) and key performance indicators (including homework pledges and counts of pupil, parent and teacher engagement). In addition, pupils were also evaluated using a pre- and post-intervention survey in the form of a quiz<sup>2</sup>. Out of 27 pupils who attended the workshops, 24 completed both the pre-intervention and post-intervention survey, the results of which can be seen below.

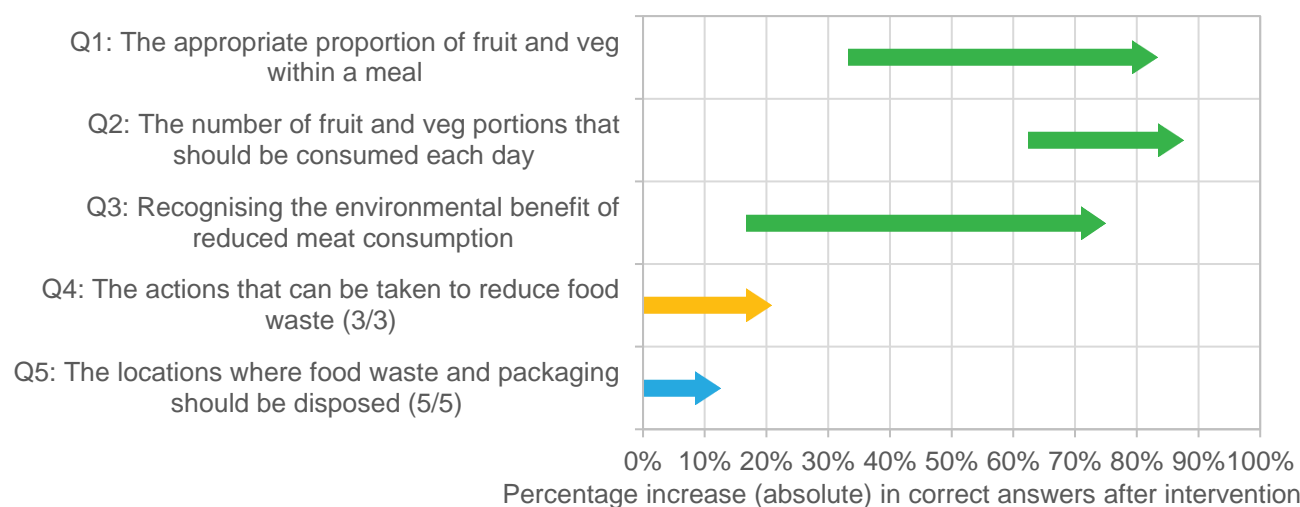


Figure 2 - Percentage increase in correct answers (post-intervention) from pupils completing the 'Small Change, Big Difference' quiz. Q1 - Q3 relate to healthy and sustainable eating, Q4 relates to the prevention of avoidable food waste and Q5 to recycling food waste.

## Knowledge

The pupils made significant improvements in their knowledge of healthy and sustainable eating. In the pre-intervention survey, pupils' knowledge of healthy and sustainable eating varied. For example, whilst only 4/24 pupils knew that reducing meat consumption was good for the environment, 15/24 pupils were able to correctly answer the recommended daily portion of fruit and vegetables. However, large improvements were visible in the post-intervention survey, with 18/24 pupils now recognising that reduced meat consumption is good for the environment. This improvement might be explained, in part, by the fact that pupils reported enjoying the healthy smoothie making activity the most, with 14/24 pupils stating it was their favourite part of the workshops.

<sup>2</sup> The full quiz can be viewed at <http://resources.trifocal.eu.com/resources/education-packs/>

Pupils made improvements in their knowledge of food waste reduction methods, although evidence suggests some misunderstanding remains. In the pre-intervention survey, none of the pupils could identify more than one of the three correct food waste reduction methods. However, in the post-intervention survey, 5/24 pupils [Figure 2] were able to identify all correct methods (3/3) and 10/24 pupils were able to identify at least two. It should be noted that most pupils also selected additional incorrect answers, with at least 96% of pupils selecting two or three incorrect answers in both the pre- and post-intervention surveys.

Pupils made marginal improvements in their knowledge of where food waste should be disposed. In the pre-intervention survey, none of the pupils scored more than 3/5 when asked where food and food packaging should be disposed [Figure 2]. However, in the post-intervention survey 3/24 pupils were able to list where each of the five-food waste and packaging items should be disposed.

### Attitude

Pupils were enthusiastic about the workshops and there was a positive shift in their attitude towards food waste. Nearly all pupils (22/24) rated their enjoyment of the workshops at 4/5 or above. In addition, the post-intervention survey feedback showed that the number of pupils that rated how much they cared about food waste at 4/5 or above, increased from 7/24 to 18/24.

Despite the age of the pupils and lower knowledge of food waste reduction, many of the pupils indicated they were prepared to take actions to change their behaviour in this area. However, this commitment to action was still lower than the average recorded across all TRiFOCAL schools. For example, when asked what they would do differently in the post-intervention survey, 46% made statements related to food waste reduction. The average results for all TRiFOCAL schools also showed this area to be the focus, but for a larger proportion of pupils (75%).

### Behaviour

There is not enough evidence to suggest a behaviour change within the school, however, there was evidence from parent focus groups and completed pledges that pupils were making changes at home. The primary in-school food waste reduction evidence, a lunchtime plate audit, did not show a clear change in school over the three weeks it ran. However, parents commented that their children were making smoothies at home, requesting healthier foods and taking smaller portions. In addition, all 27 pupils made and completed two pledges (54 pledges in total) as part of a homework task; one on healthy and sustainable eating and one on food waste reduction or recycling.

### Cascade effect

There was evidence of discussion between pupils as well as between pupils and their parents. During the post-intervention survey, 16/24 pupils reported that they had discussed food waste or healthy and sustainable eating with parents, this was confirmed by the parent focus groups. Topics that were discussed in the home covered all three messages and included organising the fridges and cupboards with FIFO (first in, first out), setting up home food waste recycling, and eating healthier foods. In addition, in the same survey 11/24 pupils reported discussing food waste or healthy eating with friends and 9/24 with other pupils<sup>3</sup>.

*'My boys were quite excited about it. They kept coming home and telling me not to waste food'*

Enthusiasm from parents in the school was high. Over 60 parents were engaged in the campaign day. This was better than the teachers expected as they previously reported lack of parent engagement in previous school activities. Furthermore, evidence from the focus groups also highlighted enthusiasm from parents and their wish to be more involved. For example, one parent wanted to participate in the

*'My daughter tells me stuff, but it doesn't make sense to me. I would like to be there so I can do what they learn'*

<sup>3</sup> Discussion with other pupils does not appear to be age dependent, as it falls in line with the average for all TRiFOCAL schools. This might have been helped by structured events that facilitated discussion. For example, nearly half of pupils from the school attended the campaign day and the class discussed the workshops with pupils from a school in Dublin in the final workshop via a video link.

pupil workshops herself, and another suggested a 'Come Dine with Me' event for parents so that they would find out more.

The wider community was engaged in the project via Groundwork's corporate volunteering day and made permanent changes to the school's infrastructure to encourage healthy and sustainable eating and establish a legacy following the TRiFOCAL programme. Compost bays and growing tunnels were set up in the school's existing polytunnel. These were designed to be easily transferrable to give the school the opportunity of taking them when they move to their new site.

### Challenges and considerations

The facilitators reported that teacher engagement was less present than previous schools, due to heavy workload. This may in part explain the smaller increases in knowledge in this school opposed to others on top of the younger age of pupils directly involved.

The quiz evaluating the workshop was not designed for this age group and therefore it is possible that the evaluation does not fully capture the impact of the workshops. This school also had a higher percentage of pupils where English is their second language (63%) which may have impacted on their learning and/or the results of the quiz. In addition, facilitators highlighted a noticeable difference in their learning and abilities due to their age group being lower than the other schools in the programme. As such, the case study has focused more on the pre- to post-intervention differences within the school, rather than comparing results to other schools in the TRiFOCAL programme.

### Conclusions and recommendations

The successful workshops improved pupils' knowledge and attitudes of the three key campaign messages. Prior to the intervention, pupils had extremely little knowledge of food waste reduction, food waste recycling and little knowledge of healthy and sustainable eating. Notably, significant improvements were made in knowledge around healthy and sustainable eating, this being the focus of the activity pupils enjoyed the most (smoothie making). While marginal improvements in knowledge were made to food waste recycling and slight improvements were made regarding food waste reduction. However, it was evident that there remained confusion around methods of food waste reduction.

When compared to other schools within the TRiFOCAL project, it is believed that demographic and structural factors likely influenced lower improvements in knowledge and understanding at Nightingale. These included, the younger age of participating pupils, higher proportion of pupils where English was their second language and lower teacher involvement. It is also possible that the primary evaluation method (quiz) was unsuitable for this age group.

In addition to improvements in knowledge, pupils reported high enjoyment of activities and developed a more positive attitude towards reducing food waste. This was particularly notable in the home, where parents observed positive changes in their children's attitude toward food waste and reported that this translated into positive behaviour changes in all three key areas. It is expected that parent's enthusiasm was likely to have been a substantial contributor to changes in pupils' attitude and behaviour. This enthusiasm was highlighted through input from parents at the campaign day, completion of homework books and through comments made in focus groups. While there was evidence of a wider cascade effect (e.g. pupils talking to other pupils / friends) the main route was discussion with parents.

Going forward recommendations were to utilise the parents' enthusiasm and requests to be more involved, either through input into the school workshops, separate parent workshops or greater communication between parents and the school. This was considered in later TRiFOCAL schools, for example Dorchester Primary School in Sutton<sup>4</sup>, where parents were encouraged to attend cooking workshops focusing on healthy and sustainable eating. There was high attendance at these workshops with parents making leftover dishes for the campaign day and enthusiastically informing other parents about the campaign.

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<sup>4</sup> See separate case study on Dorchester Primary School for more information:  
<http://resources.trifocal.eu.com/resources/evaluation-case-studies-schools/>