

# Reducing food waste in schools

## Meals cooked to order



### Introduction

**Aim:** This intervention aims to reduce food waste by providing school meal service providers (i.e. kitchens either on the school premises or elsewhere) with information on exactly how many portions of each meal option to prepare that day, eliminating the need for over-catering and ensuring children receive the meal that they want.

**Rationale:** Catering staff in primary schools generally have information on the total number of pupils they are cooking for, but in most schools they have no information about the specific numbers for each meal option. They are skilled at estimating how many children will choose each meal, but have no way of knowing exact numbers.

This lack of information can result in food being wasted for one of the following reasons:

1. School catering staff cook additional portions of each meal option to allow the majority of pupils to have their preferred choice of meal. The extra food can be offered as 'seconds' or larger portions for older pupils, but is sometimes thrown away un-served at the end of the lunch hour.
2. Staff only cook one portion per child, so there is no un-served food; however, the pupils who are last to come into the dining hall often have a very limited choice of food. Served with food that they have not chosen and may not like, many pupils throw away some (and sometimes all) of their meal.

To reduce schools' food waste, pupils and catering staff interviewed as part of a VWRAP research project into food waste in schools suggested introducing a system for pupils to choose a specific meal each day, allowing the school to communicate exact numbers for each meal option to the catering staff.

### Overview

This simple system allows pupils to choose their preferred meal option each morning, at which point they are given a coloured silicone wristband corresponding to their meal choice. The numbers of pupils selecting each meal option are communicated to the kitchen, allowing staff to cook the correct number of portions of each. On entering the dining hall those serving the cooked meals can see at a glance which option each child has ordered from their coloured wristband.

In order to implement this system your school will need to have the following in place:

- a system for pupils / parents to pre-pay for school meals
- a way of recording which pupils are having a school meal each day
- a way to communicate the number of school meals ordered to the kitchen preparing the school meals each morning

### Benefits to the school

As well as reducing food waste, schools that have trialled this system report that cooking meals to order has many additional benefits to the school:

- Pupils are actively involved in planning their meal choice and take ownership of this process.
- Parents, especially those of younger pupils, are happy to be involved in choosing their child's meal at home.
- Pupils enjoy wearing wristbands and have a positive attitude to school meals.
- Queueing times are reduced, since pupils have made their meal choice before arriving at the serving counter.
- Administrative errors relating to the payment for school meals are reduced, saving the school money.

# Reducing food waste in schools

## Meals cooked to order



### Planning the introduction of 'meals cooked to order' in your school

Allow plenty of time to plan the system thoroughly; schools that have trialled the system suggest 3 weeks is appropriate. First decide who is going to oversee the implementation process; a member of the school's senior leadership team is likely to be most appropriate, although many tasks will be delegated to other staff and possibly pupils. During the planning process you will need to consult your catering company, kitchen staff, serving staff, teachers, midday meal supervisors and office staff.

You will need to source child / youth size wristbands, one colour per meal option. Schools that have trialled the system suggest ordering double the number of school meals you normally provide. For example, a school providing 300 school meals per day needed 300 'meat' and 150 'vegetarian' wristbands. Ordering 400 red and 200 green wristbands provided them with some spare bands to replace those mislaid by pupils as they got used to the new system. You will also need a labelled container for each class to store their wristbands (e.g., a re-used ice-cream tub).

It is important to think through each stage, discuss it with the relevant staff, and work out how it will work in your school. Every school is different, so adjust any of the instructions to ensure that the system works smoothly in your setting. However, changes should not interfere with the basic aim: to provide those cooking school meals with exact numbers for each meal choice in order to reduce food waste.

Most schools find that meal numbers need to reach the kitchen by 9.30am; timing therefore needs to be considered carefully when planning the meal booking process. Cooks may also want to consider whether they need smaller preparation tins in order to cook fewer portions of composite meals.

**"I would highly recommend the ordering system to other schools. We found engaging the children in the process of planning meals ahead very positive, giving them ownership of their food planning. Our children liked the system and wearing the bands, making school meals more appealing. It has also improved our school's ordering system, reducing clerical errors and disputes with parents over mis-ordered meals. We've reduced food waste and saved money, an excellent outcome for any school!"**

Headteacher, Chandag Junior School, Bath and North East Somerset



### Top tips from schools

- Check what time the kitchen needs the numbers.
- Make sure the teachers are on board - their role is crucial for getting accurate numbers collected and communicated to the kitchen quickly each morning.

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## Meals cooked to order



### Implementing a 'meals cooked to order' system

#### Step 1. Providing information on meal options available

*This stage should be discussed with teachers during the planning process. If your school catering is provided by an external catering company it may also be necessary to discuss with them the format of your menu.*

It is important for each child to make an informed decision about their meal choice, so the school's menu needs to be accessible to all. To save time at the beginning of the school day it would be best if meal choices were made at home with the parents. Many parents are keen to know more about what their child is eating at school, and will be happy to discuss the menu and help their child make this decision. Some children, however, will come to school without having considered the menu, or will forget the decision they made at home. It will therefore be important to display menus in or near each classroom.

To make it easier for teachers taking the dinner register we strongly advise colour coding the menu. Most schools use green for the vegetarian meal option and red for the meat option. Blue or yellow can be added if your menu includes a third meal choice. Labelling each meal option on the menu with the corresponding colour will mean that children only have to remember "I'm having red today" rather than "I'm having lamb korma."

Things to consider:

- Do we currently send paper copies of the school menu home with pupils? If so, how often is this done?
- Is there a way for families to access the menu if they lose their paper copy? (E.g., copies in the entrance lobby, the school's website)
- Is our school menu easy for pupils and parents to understand? Can they work out at a glance which meal options are available on a given day? It might be appropriate to consult the School Council on this issue.
- How can we support children who are not confident readers of English? Some schools use images on the menu and display these on the whiteboards in FS and KS1 classes each morning.
- Are we going to colour code the menu to help children remember their meal choice?
- Where shall we display menus at school? Do we want each class to have the same system, or will each teacher decide for themselves? Shall we involve pupils in this decision?
- Do we want to display the menu anywhere else in the school? (E.g., in the dining hall, the school lobby)



### Top tips from schools

- Build up a bank of photos of your school meals: ask the cook or School Council to take a photo of each meal option every day during your 3-week planning period.
- Consult pupils and parents to find out if the layout and wording of your menu is clear and everyone understands what the meal options are.

# Reducing food waste in schools

## Meals cooked to order



### Step 2. Distributing coloured wristbands to pupils

*This stage should be discussed with teachers during the planning process.*

The school's current system for recording the number of pupils having school dinners and packed lunches need not change. However a few extra steps will need to be added in order to record specific meal choices:

1. When a child asks for a school meal at registration, s/he should say which meal option s/he has chosen. Depending on how you have decided to label your menu, it may be simplest for each child to tell you the colour coding for the option they have chosen. For example, instead of saying "school dinners please" s/he will say "school dinners please, green."
2. Each child having a school meal should be handed a wristband of the colour corresponding with their meal choice - teachers can do this themselves, or delegate the job to a responsible pupil. Some might want to choose a separate pupil to hand out each colour.
3. The number of pupils with each coloured band should be counted. Teachers can decide how to do this according to the age of their pupils, and there are opportunities to link the process to pupils' numeracy skills.
4. The number of bands of each colour should be recorded. This task can also be delegated to an appropriate pupil.

Once the system is established, teachers of older pupils may decide that it is appropriate to let pupils select their own wristband as they come into school each morning. This will make the process quicker, eliminating the need for stage 2 above.

Some schools who trialled the system decided to give the wristbands to Reception children at the end of the morning to prevent them from losing them. This also gave teachers the opportunity to remind pupils what they had ordered at the start of the school day.

### Step 3. Communicating numbers for each meal option to the kitchen

*This stage should be discussed with the school office and kitchen during the planning process.*

In most schools meal choice numbers should be sent to the school office with the dinner register. Once the numbers have been received from all classes, totals for each meal choice should be calculated and communicated to the kitchen.

Alternatively the numbers can be sent directly to the kitchen, where staff can do this simple calculation themselves.

### Top tips from schools

- Teachers should put the box of wristbands away after morning registration, otherwise children might be tempted to swap their wristband in the course of the morning!
- Think about how to ensure late children receive a wristband and are included in the numbers sent to the kitchen.



# Reducing food waste in schools

## Meals cooked to order



### Step 4. Serving pupils' meals

*This stage should be discussed with the catering staff during the planning process.*

Pupils need to understand that they no longer make their meal choice at the point of serving. The serving procedure does not need to change. Simply ensure that pupils' coloured wristbands are clearly visible to serving staff, either on their wrist or placed on their tray.

### Top tips from schools

- Think carefully about how to get the wristbands back to classrooms!
- Make sure all the midday meal supervisors know about the wristband system so they can support its introduction and make everything run smoothly in the dining hall.

### Step 5. Collecting wristbands

*This stage should be discussed with midday meal supervisors during the planning process.*

After lunch the wristbands need to be collected and redistributed to all classes ready for the next morning. Your school will need to devise a method to do this that works for you.

Most schools that have trialled the system appointed KS2 pupils as 'wristband monitors'. Pupils removed their wristband before leaving the dining hall, putting them into a coloured buckets, or similar containers. The monitors counted an agreed number of each coloured band into class containers and took them back to the classrooms at the end of the lunch break.

Some schools felt that the wristbands needed washing each day before redistribution, in which case warm soapy water was put in the buckets and the bands rinsed and dried by kitchen staff before the monitors redistributed them. Other schools decided to wash the bands in their dishwasher each week (it would be advisable to check this with the supplier of your bands.)

A few schools asked pupils to put their wristband into a container labelled with their class name as they left the hall. The monitors then only had to return the containers to classrooms.

One school allowed KS2 pupils to keep their wristband on their wrist and return with it to class in the afternoon, avoiding the need for monitors. However if using this system you will need to ensure that pupils cannot re-enter the dining hall for another meal!

**"The kitchen reported a significant reduction in kitchen waste and the Cook liked to know the exact numbers that she was cooking for on a daily basis - it took away the guess work. The parents of the younger children were involved in helping the children to make choices and they liked that. It also made the service quicker as children weren't standing at the counter thinking about what they wanted. I'd say don't be afraid to try it out - it worked really smoothly from day one."**

Headteacher, Henbury Court Primary School, Bristol Primary

# Reducing food waste in schools

## Meals cooked to order



### Raising awareness of the changes in school

Once you have finalised the details for introducing the system to your school, it is important to inform the whole school community. Make sure all adults and pupils understand the agreed system and why you are implementing it. This is likely to include:

- Office staff
- Kitchen staff
- Midday meal supervisors
- Teachers
- Pupils
- Classroom assistants

It is also essential that parents and carers understand the new system.

You will need to consider:

#### 1. **What message to communicate**

As well as telling adults and children about the logistics of the new system, decide what reason to give them for introducing it. It should be possible to emphasise the advantages to both pupil health (i.e. all pupils getting the meal of their choice) and the environment (i.e. less food being thrown away.) Pupils need to understand that they will no longer make their meal choice at the point of serving, and instead show their wristband to the serving staff who will give them the corresponding meal option. For a short period teachers or midday meal supervisors, especially those working with younger children, will need to remind their classes of this before they go to lunch. However pupils will quickly adapt to the new system.

#### 2. **How to communicate the message**

To achieve a high profile for the new system a launch assembly (whole-school or KS) is recommended. Parents could be invited to this, and it will also be necessary to send a letter home or put an article in your parents' newsletter. Individual teachers will need to explain to their pupils exactly how the system will work in their classroom e.g., where the menu will be displayed, how the wristbands will be distributed. Initially pupils are likely to need a daily reminder before they go home to look at the menu and make a decision about their meal choice for the following day.

If you have information on school systems which is provided to supply teachers it will be necessary to update this accordingly.

### Curriculum links

#### **Numeracy**

Counting the number of pupils with each wristband each morning provides plentiful opportunities for using number skills at both KS1 and KS2 level.

Charts can be made showing which meal options are most popular.

#### **Literacy**

Pupils can write articles for the school newsletter or website, or perhaps a local newspaper, outlining the problems associated with food waste and what their school is doing to reduce it.

Pupils can use photographs of each stage in the wristband process to make a display for the dining hall or school lobby. Younger children can write simple captions for the pictures; older pupils can write detailed instructions to accompany the display.

#### **Geography**

Pupils can investigate where food comes from and how it is transported from its country of production to the UK.

Pupils can investigate what happens to food if we throw it away, and how it impacts on the environment.