

# myfoodspace



Teachers' Centre

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# Teachers' Notes

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## Welcome to myfoodspace!

It's time for a class party! But what food should the pupils eat? Meet the four Food Fanatics and find out how they've learned to use food labelling to make healthier choices about what to eat.

myfoodspace introduces food labelling within an overall look at healthy eating and a balanced diet. Your pupils can use food labels to make healthier choices when they are out and about, or when choosing foods at home. Food labels also include other useful information, and these materials also explore 'best before' and 'use-by' dates, and allergies and intolerances.

## Using the myfoodspace interactive in your lessons

Your DVD-Rom includes the myfoodspace interactive along with a range of pupil sheets and slide presentations. These have been designed to create a modern, engaging story-telling medium through which your pupils can meet some young role-models and learn how to make safe, healthy choices about food.

myfoodspace is based on the concept of social networking. It's not a real social networking site, but a simulated place where some young people 'meet' and share their ideas about food, activity, and life. As they explore the interactive, pupils will be able to meet four myfoodspace users, who are self-styled 'Food Fanatics': they're young, active, and care about what they eat.

The four Food Fanatics have a challenge: it's nearly the end of term, and their class will be having a party. What food will they prepare and bring? Each character has some strong opinions about what they like and don't like.

Each character has a homepage that includes their loves and hates, ideas for food to eat, recipes and some 'chat' about food with their friends. Each feature provides information for pupils to use. Pupils will need to explore each homepage to find the information they need.

Pupils can use myfoodspace to:

- meet some active young people and discover how they include healthy eating in their lives
- test their knowledge and choose healthy food options for each character
- discover how each food should be represented on the 'eatwell plate'
- explore labels, what information they provide, and how this can help them to choose healthier foods
- find out about the class party, research the best recipe for each Food Fanatic to bring – and make it for real!



## Using the pupil sheets

Your DVD includes 13 Pupil Sheets that you can use in class:

Science: sheets 1, 2, 3, 4, 5, 6, 7, 9 and 13

Food Technology: sheets 6, 7, 8, 12 and 13

Maths: sheet 10

English: sheet 11

Each Pupil Sheet is referenced in the detailed lesson plans, extension ideas and curriculum links, so you can see where each one can best support your teaching.

## Using the slide presentations

Your DVD also includes three slide presentations in the common Microsoft PowerPoint format. Part 1 supports Science lesson 1, Part 2 supports Science lesson 2, and Part 3 supports the Food Technology extension lesson.

You can also modify these slides to suit the needs of your class, or use your own combinations of slides to support specific teaching points.

## About the Food Standards Agency

The Food Standards Agency (FSA) is an independent Government department. We aim to protect the public's health and consumer interests in relation to food. Everything we do reflects our vision of safe food and healthy eating for all. As a Government department, independent regulator and consumer protection body, we use the best available evidence and work with:

- businesses from farm to fork to help them keep consumers safe
- local authorities and other food law enforcement bodies to help them take proportionate, timely and resolute action
- consumers, including children and young people, to provide reliable and up-to-date information to help them make healthy choices about food.

To find out more about the Food Standards Agency visit [www.food.gov.uk](http://www.food.gov.uk).



## Why the Food Standards Agency has created the myfoodspace materials

Your pupils' diets affect all aspects of their lives, from their weight to their overall health, and may affect their ability to learn.

*The FSA wants to help young people to choose, cook and eat safe, healthy food.*

The FSA has worked closely with school children and teachers to develop the food competences. Research highlighted that learning about food labels is not consistent, and some children struggle to use and apply labelling information when it comes to making everyday choices. Sometimes, the most difficult choices can be manufactured foods. Children especially can struggle to understand the nutritional value of these products.

Traffic Light labels make these decisions easy – pupils just need to remember to 'go for green' and choose products with as many greens on the label as they can. This puts pupils more in control of what they eat, and equips them with the knowledge, understanding and skills to make healthier food choices. The activities include an exploration of how some foods are prepared and cooked. These help pupils to make positive choices, not only when choosing ready-made foods, but also when preparing and cooking healthier snacks and meals for themselves.

## The Food Standards Agency Food Competency Framework

myfoodspace is designed around The Food Standards Agency Food Competency Framework. This is intended to help teachers, parents and anyone who works with children and young people to help them make healthy food choices now and into adulthood. It is a framework of core skills and knowledge, which sets out the essential building blocks in relation to healthy eating, cooking and food safety. It supports and complements all UK curricula.

By the age of 11-12, the Framework sets out that children should be able to:

Diet and Health	Consumer Awareness	Cooking (food preparation and handling skills)	Food Safety
<p>... make food choices based on the understanding that a healthy diet is made up from a variety and balance of different food and drinks.</p> <p>... be aware of the importance of a healthy and balanced diet, good oral health and being physically active for health and wellbeing.</p> <p>... know that a variety of food is needed in the diet because different foods provide different substances for our health, namely nutrients, water and fibre.</p> <p>... be aware that food needs change and that some people eat or avoid certain foods, e.g. allergy or religious belief.</p>	<p>... research where and how food is produced and sold, e.g. growing food at school/home, visiting a farm.</p> <p>... consider cost when helping to shop for and cook food.</p> <p>... be aware that advertising can influence what they choose to eat.</p> <p>... know that people choose different types of food and that this may be influenced by availability, season, need, cost, minimal packaging, where the food is produced, culture, religion and peer-pressure.</p> <p>... read and make use of the main information on food labels to help make a choice.</p>	<p>... name, taste and prepare a broader range of ingredients and healthy recipes, accounting for ethnic diversity.</p> <p>... select and use appropriate tools and equipment safely when preparing and cooking food.</p> <p>... demonstrate an increasing range of food preparation skills, e.g. accurate weighing and measuring, kneading.</p> <p>... know how to store, prepare and cook food safely and hygienically.</p> <p>... actively minimise food waste, compost fruit and vegetable peelings and recycle food packaging.</p>	<p>... know that food safety means preventing contamination, spoilage and decay when handling and storing food, so that it is safe to eat.</p> <p>... demonstrate good food safety practices when getting ready to store, prepare and cook food e.g. keep raw meats away from other food.</p> <p>... use information on food labels to store food correctly.</p>

To view the full framework for 7-9, 11-12, 14 and 16 year-olds and to find out more, visit [www.food.gov.uk/healthiereating/nutritionschools/competencies/](http://www.food.gov.uk/healthiereating/nutritionschools/competencies/)





## Healthy eating

You and your pupils can eat healthily by following the FSA's 8 tips for eating well, and by using the eatwell plate. This will help you, and them, to understand the types and proportions of foods you need in order to have a healthy and well-balanced diet.

### 8 tips for eating well

A healthy diet contains plenty of fruit and vegetables; is based on starchy foods such as wholegrain bread, pasta and rice; and is low in fat (especially saturated fat), salt and sugars. Traffic light labels and the eatwell plate support the FSA's '8 tips for eating well'. These are practical tips to help you make healthier choices:

1. Base your meals on starchy foods
2. Eat lots of fruit and veg
3. Eat more fish
4. Cut down on saturated fat and sugars
5. Try to eat less salt - no more than 6g a day
6. Get active and try to be a healthy weight
7. Drink plenty of water
8. Don't skip breakfast

To find out more visit [www.eatwell.gov.uk/healthydiet/eighttipsection/8tips/](http://www.eatwell.gov.uk/healthydiet/eighttipsection/8tips/)

**Appendix I contains background information on fat, sugars, salt and wholegrains.**

**Appendix II contains information on food safety.**

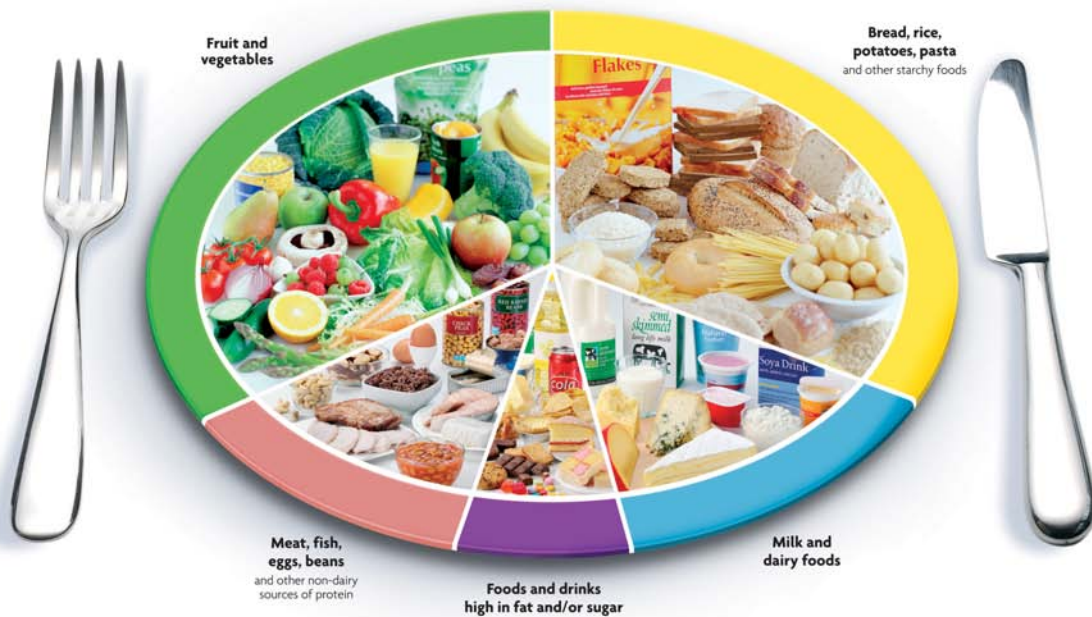
**Appendix III contains information on food intolerances and allergies.**

## The eatwell plate

If you and your pupils want to get the balance of your diet right, use the eatwell plate. The eatwell plate makes healthy eating easier for pupils to understand by showing the types and proportions of foods they need in order to have a healthy and well balanced diet:

## The eatwell plate

Use the eatwell plate to help you get the balance right. It shows how much of what you eat should come from each food group.



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The eatwell plate shows pupils how much of what they eat should come from each food group. This includes everything they eat during the day, including snacks. So they should try to eat:

- ▶ plenty of fruit and vegetables
- ▶ plenty of bread, rice, potatoes, pasta and other starchy foods – they should choose wholegrain varieties whenever they can
- ▶ some milk and dairy foods
- ▶ some meat, fish, eggs, beans and other non-dairy sources of protein
- ▶ just a small amount of foods and drinks high in fat and/or sugar

Some foods may fit in more than one section. For example, pulses are in the meat, fish, eggs and beans and other non dairy source of protein food group, but they can also contribute to pupils' '5 a day' in the fruit and vegetables food group. Chips are a starchy food, but they can also be high in fat. It's useful to discuss examples like these with pupils. For example, although the advice is to eat plenty of starchy foods, pupils should try to choose chips less often, and also consider other ways to enjoy them, such as lower fat oven chips. They should also remember that adding salt to a large portion of chips will contribute a large amount of salt to their diet.



Combination or composite foods contain foods from more than one of the five food groups. When you introduce the eatwell plate, get pupils to suggest how a variety of meals might be split between sections. For example, for a chicken stir-fry, the chicken would fit in the meat, fish, eggs, beans and other non-dairy sources of protein section, the vegetables in the fruit and vegetables section, the rice in the bread, rice, potatoes, pasta and other starchy foods section, and so on.

This creates a useful example: although the stir fry may contain plenty of vegetables and starchy foods, it may also be high in fat, salt and sugars. How can pupils tell? If it is a manufactured sauce they could read the label and use the ingredients, nutrition information and any portion information to help them. If the sauce is home-made, they could list the ingredients and use these to make their decision. Changing the sauce to a healthier option could make the stir-fry a better way to fill their eatwell plate.

The eatwell plate applies to most people. It applies to vegetarians and vegans, people of all ethnic origin and people who are a healthy weight for their height, as well as those who are overweight. However it does not apply to children under two years of age because they need full fat milk and dairy products. Between the ages of two and five, children should make a gradual transition to family foods and the recommended balance shown in the eatwell plate can begin to apply.

People under medical supervision or with special dietary requirements may want to check with their doctor to be clear about whether or not it applies to them.

**Your Healthy Schools coordinator may have access to an eatwell plate floor mat that you can use with pupils – why not use this as you explore food groups and labels in Science Lesson 1?**

To find out more about using the eatwell plate, visit [www.eatwell.gov.uk/healthydiet/eatwellplate/](http://www.eatwell.gov.uk/healthydiet/eatwellplate/)

For in-depth information visit [www.food.gov.uk/healthierating/eatwellplate/](http://www.food.gov.uk/healthierating/eatwellplate/)

For '5 a day' information visit [www.5aday.nhs.uk](http://www.5aday.nhs.uk)



## About the Traffic Light labelling scheme

Healthy eating is about getting the overall balance right. If we want to eat a healthy diet, one of the key things we should be doing is trying to cut down on fat (especially saturated fat), salt and added sugars.

Traffic light labels show you at-a-glance if the food you are thinking about buying has high, medium or low amounts of fat, saturated fat, sugars and salt, helping you get a better balance.

- **Red** means HIGH. It's fine to eat this food occasionally or as a treat, but think about how often you choose it and how much of it you eat.
- **Amber** means MEDIUM making it an OK choice, although going for green is even better.
- **Green** means it's LOW which makes it a healthier choice.

...so for a healthier choice, try to pick products with more greens and ambers and fewer reds.

In addition to traffic light colours you will also see the number of grams of fat, saturated fat, sugars and salt in what the manufacturer or retailer suggests as a 'serving' of the food. The manufacturer or retailer may also choose to provide information on the percentage Guideline Daily Amount (GDA) that is present in a serving and the amount of energy.

Look out for traffic light labels on manufactured foods. Although the designs may look different, they all tell you the same thing. Some front of pack labels will only provide the percentage GDA information without giving traffic light colours.

To find out more about the traffic light labelling scheme visit [www.eatwell.gov.uk/traffilight](http://www.eatwell.gov.uk/traffilight).

## Detailed lesson plans

Use these sample lesson plans to structure your teaching. Each lesson includes timings and optional or extension activities. You can shorten the lesson by removing some activities, or extend it so that each lesson plan covers two sessions, allowing your pupils to explore the topics in more depth.

Key questions to ask are shown with a ? Sample answers are shown with a ✓.

All lessons also support aspects of PSHE/PSE/PSD – see curriculum links for details. Extension and assessment ideas, and longer extensions that support Food Technology, English and Maths, are outlined after two detailed plans for Science.



## Science Lesson 1: Party Food!

Time Period: 50 mins (can be extended)      Ages: 9-11      Key Stage: Upper KS2

### About this lesson

Pupils review what they have already learned about food, diet and nutrition and build on this to explore the components of a healthy diet and the concept of 'getting the balance right'. Pupils meet the four 'Food Fanatics' and explore how food labelling enables them to make healthier food choices for an end-of-term class party. They help the Food Fanatics choose their recipes for the party, and suggest more ideas of their own.

### Prior Learning

Pupils should know that we need food to grow and move and that a varied diet made up of different sorts of food is necessary for health. They should be able to name different types of food, and may be able to sort these into food groups.

### Learning Outcomes

At the end of the lesson students will have learned that:

- We need to eat a balanced diet to keep healthy.
- This should include the right amounts of a variety of foods, to give us the energy and nutrients we need.
- Foods can be grouped into: fruit and vegetables; bread, rice, potatoes, pasta and other starchy foods; milk and dairy foods; meat, fish, eggs, beans and other non-dairy sources of protein; and foods and drinks high in fat and/or sugar.
- The 'eatwell plate' and food labels can help us make healthier food choices and get the balance right.

### Keywords

diet nutrients carbohydrates protein vitamins minerals fibre sugars fat salt

### Resources required

- Clean food packets showing back of pack nutrition labels, ingredients lists and front of pack traffic light labels
- Copies of Pupil Sheets 1-5
- Lesson 1 slide presentation
- myfoodspace interactive
- eatwell plate floor mat (if you have access to one)

### Preparation

- Bring in a variety of clean, empty food packets to show their labels. These should include a variety of prepared foods including biscuits and cakes, ready meals, savouries and snacks that include front of pack traffic light labels. (Pupils will notice that these front of pack labels follow a range of similar, but not identical, designs.) You can ask pupils to bring in labels of their own, but you may need to be sensitive to differences in the types, brands and quality of foods that are represented, for example to avoid embarrassment if a pupil can provide only own-label or 'value' brands.
- Explore the myfoodspace interactive and familiarise yourself with its navigation and content.



- Review the 'eatwell plate' to ensure you are familiar with the main food groups.

## Lesson Structure

Activity	Timing
<p><b>Starter</b></p> <p>Show the first slide – a variety of foods.</p> <p>? What is food? Can pupils name different food types?</p> <p>Review what pupils already know. Write their ideas on the board, for example using a concept map.</p> <p>? What is a 'diet'?</p> <p>Emphasise that this isn't about losing weight: it's a way to describe the mixture and balance of foods we eat. Discuss why we need to eat healthily. Record pupils' ideas.</p> <p>? What else should pupils do to stay healthy?            ✓ Drink plenty of water and make sure they are active every day.</p> <p>Explain that the class is going to meet four children who want to make some healthy food choices, and help them plan the food for a party. But first, they need to get their facts right!</p>	<p>5 mins</p>
<p><b>Sorting foods</b></p> <p>Show the class the 'eatwell plate' slide. Explain that this helps us to eat more of some foods, and less of others. But we need to know what's in each food.</p> <p>? What can give us this information?</p> <p>Use <b>Pupil Sheet 1</b> to help pupils identify where labels are found on packets.</p> <p>Use a variety of clean food packets to demonstrate the variety of labels, and the consistency in where front of pack labels and main nutrition labels are found.</p> <ul style="list-style-type: none"> <li>✓ Ingredients labels show what the food is made of, and are listed in order starting with the greatest ingredient – this can help you to decide which food group(s) the food belongs to on the eatwell plate.</li> <li>✓ Nutrition labels tell us how much of each nutrient is in the product.</li> <li>✓ Front of pack labels help us see how much salt, fat and sugars are in the food – these are all things we should try not to eat too much of.</li> </ul> <p>For clarity, the numbers refer to the manufacturer's recommendations for a portion of that food.</p>	<p>10 mins</p>



<p>Colours (e.g. red) are based on amounts per 100g of food so products can easily be compared.</p> <p>Food labels also tell us about when we should eat the food. Foods that go off quickly have a 'use-by' date: you must never eat these foods after this date as they may make you ill – perhaps seriously. Foods that go off slowly have a 'best before' date: after this time they won't be at their best, but are unlikely to harm you. The exception is eggs: always eat them before their 'best before' date.</p> <p>Food labels can also tell us about how to store the food, for example whether it must be refrigerated before or after opening, and for how long it can be stored.</p> <p>Pupils can use the ingredients list to spot foods that some people should avoid, and some manufacturers also list these separately on the label. (Some specific ingredients to which some people may be allergic can be found at <a href="http://www.food.gov.uk/safereating/allergyintol/">www.food.gov.uk/safereating/allergyintol/</a>, which also provides further details, and at <a href="http://www.eatwell.gov.uk/healthissues/foodintolerance/">www.eatwell.gov.uk/healthissues/foodintolerance/</a>)</p>	
<p><b>Meet the Food Fanatics</b></p> <p>Use the <b>myfoodspace interactive</b> to introduce the four characters, and explain to the class that they're going to help the Food Fanatics choose their party food. Each character's page includes information that pupils need to use. Explore each one with the class to discover their likes, dislikes, knowledge about food, and ideas for the party:</p> <p>? Do some characters need to be careful about which foods they eat? How could the other Food Fanatics help them?</p> <p>Get pupils to choose some healthy food options for each character in myfoodspace.</p>	15 mins
<p><b>Choose the party food</b></p> <p>Use <b>Pupil Sheet 2</b> to help pupils use food labels. Complete <b>Pupil Sheet 3</b> and use it with the slide presentation to help pupils 'decode' the labels. Alicia wants to choose some nibbles to bring, as well as her chosen recipe.</p> <ul style="list-style-type: none"> <li>✓ Alicia should bring the vegetable sticks and mini chicken kebabs* – their traffic lights show that they are healthier choices than the mini pork pies.</li> <li>✓ They are good choices because they are healthier. Alongside the crisps and chocolate biscuits, they will help pupils to get the balance right at the party.</li> <li>✓ Children should watch how much salt, fat and sugars they eat.</li> <li>✓ Guideline daily amounts are a guide to how much of each nutrient an average adult needs in one day. For the nutrients on the front of pack labels, these are the maximum amount an average adult should eat.</li> <li>✓ Most labels include adult percentage GDAs so pupils should be careful and not base their intake on these values, as this would mean that they eat too much fat, salt and sugars.</li> <li>✓ Calories indicate how much energy is in a food (energy can be provided by carbohydrates, fats or protein, but pupils do not need to know this at this time).</li> <li>✓ Nutrition labels tell you about the nutrient content of food and can help you to choose a balanced diet.</li> <li>✓ Traffic light labels help you to make healthier choices by showing you the levels of fat, salt and sugars.</li> </ul>	15 mins



<p>Pupils should now use the <a href="#">myfoodspace interactive</a> to identify which food each of the characters will bring to the party:</p> <ul style="list-style-type: none"> <li>✓ Pizza, Tuna Boats, Brownies and Fruit Smoothies.</li> </ul> <p>Pupils can explore these foods by using the 'drag and drop' interactive eatwell plate.</p> <p>This activity also helps to introduce the idea of portion size.</p> <p>Portion size information on the label is the manufacturer's suggestion. People may eat different amounts and this means the amount of nutrients also changes. To introduce this idea to the pupils, get them to each pour out how much cereal they would normally eat for breakfast into a bowl and then weigh each pupil's cereal. Compare the cereal weights against the portion size on the label and discuss the results.</p> <p><i>*some satay-style kebabs come with a peanut-based sauce, and so this activity can also be used to explore allergies and intolerances.</i></p>	
<p><b>Optional: Role-plays</b></p> <p>Getting the overall balance right means knowing when a healthier choice is the right thing, or when a treat is OK. Peer pressure often stops people making the right choice.</p> <p>Use the role-plays on <a href="#">Pupil Sheet 5</a> to help pupils briefly explore three scenarios. Split pupils into groups of four. Get them to role-play the scenario, and choose the right food in the circumstances. Each group should report back to the class.</p> <ul style="list-style-type: none"> <li>✓ Alicia: banana; Tireke: yogurt or sponge cake; Aqib: dried fruit.</li> <li>? Why is it important to question peer pressure to choose less healthy foods?</li> <li>? What are pupils' ideas for ways to respond to their friends so that they can make better choices?</li> </ul> <p>Each set of choices includes a food that may include gluten, allowing your pupils to use the role-plays to consider allergies and intolerances, especially if some of your pupils have food allergies or intolerances themselves.</p>	<p>10 mins</p>
<p><b>Plenary</b></p> <p>Review what pupils have learned. Use <a href="#">Pupil Sheet 4</a> and label the blank eatwell plate:</p> <ul style="list-style-type: none"> <li>✓ Pupils should eat PLENTY of fruit &amp; vegetables; PLENTY of bread, rice, potatoes, pasta and other starchy foods; SOME milk and dairy foods; SOME meat, fish, eggs, beans and other non-dairy sources of protein; and JUST A SMALL AMOUNT of food and drinks high in fat and/or sugar.</li> </ul>	<p>5 mins</p>





<p>Allergies and intolerances: Pupils could suggest wheat-free alternatives for inclusion in 'starchy foods'.</p> <p>In myfoodspace, pupils can use the labels page for each character, and the label quiz, to reinforce their learning about labels and practice making healthier food choices.</p> <p>Explain that in the next session, pupils will explore the four recipes and some of the science of cooking as they analyse each recipe to see how much of each food group it might contain.</p>	
<p><b>Extension / homework – Get the balance right!</b></p> <p>Pupils can complete the rest of <b>Pupil Sheet 4</b>. They should:</p> <ul style="list-style-type: none"> <li>• write each thing down that they ate the previous day in the correct part of their eatwell plate - if they ate a lot, use large writing, if they ate a tiny amount, write it really small</li> <li>• remember to break meals down (e.g. separate meat and rice into their groups, and think about any fat, salt or sugars that may have been in the meal)</li> <li>• think carefully about manufactured food products and where possible research these using labels</li> <li>• ADD more foods they should eat more of (for example more fruit and veg)</li> <li>• HIGHLIGHT the foods they think are high in added salt, fat and sugars and if needs be, draw an arrow from these foods to the right section of the eatwell plate.</li> </ul>	To suit

## Differentiation

### Support

See the **assembly idea** (page 28) for a way to explain the concept of traffic lights. Some pupils may need help to sort foods into their groups and to understand the idea of 'balance' as shown by the eatwell plate. They may also need help to distinguish between simple foods and ingredients, such as bread or chicken, and more complex foods that combine many ingredients, such as a pasty or samosa.

### Challenge

More able pupils can explore why front of pack labels concentrate on fat, salt and sugars. They could use the internet (especially [www.eatwell.gov.uk](http://www.eatwell.gov.uk)) to find out more about how each of these nutrients can affect our health, and explore a range of food labels and packaging to discover the kinds of foods in which they might be found. They could keep a food diary logging any prepared or manufactured foods they eat during the week, keeping any packets for the foods that they eat. Can they calculate how much fat, salt and sugars they have eaten?



## Science Lesson 2: Making food

Time Period: 50 mins (can be extended)      Ages: 9-11      Key Stage: Upper KS2

### About this lesson

Pupils explore the four recipes that the Food Fanatics will make and bring to the end of term class party. They learn how ingredients are combined to make foods, and how this mixture of ingredients determines the food's nutritional profile. Students can also explore their senses, good and bad micro-organisms, and reversible and irreversible changes when combining and cooking foods. They can also explore food allergies and intolerances.

### Prior Learning

Students should have completed Science Lesson 1, or have covered the equivalent learning outcomes:

- We need to eat a balanced diet to keep us healthy.
- This should include the right amounts of a variety of foods, to give us the energy and nutrients we need.
- Foods can be grouped into: fruit and vegetables; bread, rice, potatoes, pasta and other starchy foods; milk and dairy foods; meat, fish, eggs, beans and other non-dairy sources of protein; and foods and drinks high in fat and/or sugar.
- The 'eatwell plate' and food labels can help us make healthier food choices and get the balance right.

### Learning Outcomes

At the end of the lesson students will have learned that:

- many foods are made from a combination of ingredients, and these determine the nutritional profile of the finished food
- food labels help us understand what nutrients manufactured food products contain and help us choose the right foods
- preparing and cooking food involves a range of irreversible changes e.g. toasting bread
- our senses help us to describe the differences between uncooked and cooked foods, and detect some nutrients that we should try to eat less of (salt, sugars, fat).

### Keywords

food ingredient carbohydrate protein fat sugars salt nutrition label material properties filtration separation dissolving soluble insoluble reversible irreversible

### Resources required

- Copies of Pupil Sheets 4, 7 and 9 (and 13 to explore allergies and intolerances)
- Lesson 2 slide presentation
- myfoodspace DVD videos
- Optionally, some clean packaging or labels for prepared pizza, tuna boats, brownies and fruit smoothies

### Preparation

Review the DVD videos to see each food being prepared (you may wish to select and concentrate on one food).

## Lesson Structure

Activity	Timing
<p><b>Starter</b></p> <p>Review what pupils explored in Lesson 1. Show the ‘eatwell plate’ slide and the sample traffic light label slide.</p> <ul style="list-style-type: none"> <li>? How does this help pupils to make the right food choices?</li> </ul> <p>If you used <b>Pupil Sheet 4</b> as an extension or homework activity, ask pupils how many of the foods they ate were manufactured foods.</p> <ul style="list-style-type: none"> <li>? What is it about manufactured foods that determines the balance of food groups they contain?</li> <li>✓ The ingredients determine how much fat, salt and sugars it contains, along with starchy carbohydrates, fibre and protein.</li> </ul> <p>Explain that pupils will explore one or more of the four recipes that the Food Fanatics chose to take to their party. They are going to think about how their senses can detect different sorts of foods and help them describe food products. The class will watch one or more of the recipes being prepared and cooked. They will explore how cooking changes the ingredients, and how the labels on prepared foods help us know what we are eating.</p> <p>Let’s get ready for the party!</p>	<p>5 mins</p>
<p><b>What’s in a recipe?</b></p> <p>Split the class into small groups. Get each group to select a recipe, or divide them between groups. In myfoodspace, pupils can explore and print each character’s recipe.</p> <p>Get groups to write their ingredients in the correct parts of the eatwell plate, using a copy of <b>Pupil Sheet 4</b> (they will need to label the food groups first). Pupils should indicate how much of each ingredient is used, using measures or different writing sizes, for example.</p> <ul style="list-style-type: none"> <li>? Does their recipe include sugar, fat or salt?</li> <li>? Does it help them to eat plenty of starchy foods and / or fruit &amp; veg?</li> </ul> <p>Some ingredients, like herbs, can be ignored. Look and see if there are any ingredients that don’t fit in and talk about them and why they are included such as baking powder (which contains sodium), a raising agent.</p> <p>So even for small ingredients, it is useful to read the label.</p> <p>If you have brought a collection of labels into the classroom, allow pupils to explore some labels for manufactured versions of these foods.</p> <ul style="list-style-type: none"> <li>? What do the labels show about the nutrition in each food?</li> </ul>	<p>10 mins</p>



Help pupils make the conceptual link between the ingredients list on the label and the nutrition table, and if one is present, between the nutrition table and the front of pack traffic light label.

- ? How can these food labels help pupils make food choices?
- ✓ The ingredients label and nutrition label on the back of the pack can help them to 'get the balance right' and make healthier choices, and the traffic light label on the front can also help them to choose foods with less fat, salt and sugars.

Remember that fruit and vegetables very often do not have labels. Pupils should understand that unprepared fruit and vegetables are naturally low in fat and salt and although fruit contains sugars, this is natural and not added. Pupils can 'get the balance right' by choosing five portions of fruit and vegetables a day.

Option: explore food allergies and intolerances using [Pupil Sheet 13](#).

Many allergens are hidden as ingredients in foods, especially those that are ready-made. Pupil Sheet 13 helps children to become aware of potential 'hidden' sources of allergens and foods to which people can be intolerant. It raises the practical question of how to advise people, and how to offer alternatives for them to enjoy, including how to prepare food safely.

To use the sheet, you may wish to provide a selection of food labels for potential party foods. Since 2005, every pre-packed food should show clearly on the label if it includes one of a range of ingredients that can cause an allergic reaction, or to which some people may be intolerant. It's useful to begin by discussing pupils' ideas of what a food allergy or intolerance may lead to – the definitions in Appendix III are useful. **If a member of the class has a severe food allergy it would be best not to introduce a food containing that ingredient into the classroom.**

The answers to this sheet are:

Party food	Example ingredient that some people must avoid	Other ingredients that some people must avoid
Chicken nuggets	Eggs (in the batter)	Wheat, in breadcrumbs
Cocktail sausages	Wheat (as binder or filler)	Some sausages contain mustard
Ice cream	Milk	Soya (as an emulsifier)
Tomato ketchup	Celery (in the seasoning)	Wheat (may be used as a thickener)
Hummus dip	Sesame	-
Fruit and nut chocolate	Peanuts or tree nuts depending on the make of chocolate	Milk, soya
Prawn crackers	Crustaceans	-



You may want to discuss shellfish with your class – can they allocate a range of sea creatures to ‘crustaceans’ or ‘molluscs’?

**Crustaceans** include crabs, lobsters, crayfish, shrimp and prawns.

**Molluscs** include mussels, cockles, clams, whelks etc., as well as squid, octopus – and edible snails!

As the ingredients may vary between brands it would be advisable to check the ingredients lists on the foods you have provided before the start of the lesson.

To help everyone enjoy the party foods, pupils, teachers and parents could:

1. Choose a speciality version of the product that does not contain the allergen (for example from a ‘free from’ range – but ensure you read the ingredients label)
2. Make the same food using a recipe that does not include the allergen, taking care to wash hands, utensils and work surfaces to avoid any contamination
3. Ask the pupil for their ideas for an alternative food that they can enjoy.

**IMPORTANT: to avoid complication, this worksheet does not cover all food allergens, or foods that contain each one. It is important that you help pupils to understand that each allergen can be found in many foods. For a full list of allergens covered by labelling legislation, and more information, visit: [www.eatwell.gov.uk/healthissues/foodintolerance/](http://www.eatwell.gov.uk/healthissues/foodintolerance/)**

### Describing foods

10 mins

Pupils’ five senses can help them to choose the right foods and get the balance right, by detecting the fat, salt, and sugars in foods. This can help them link what’s on the label, to what they sense as they eat. Use the ‘five senses’ slide to help you.

- ? What are our five senses?
- ? How can each one describe food?

Get pupils to think about how they could describe their chosen recipe using their senses:

- ? How would it look, smell, taste, feel in their mouth?
- ? Can they think of any foods that have a sound? (like sizzling steak or fizzing drinks)

Get groups to think about their descriptions, and link these to the ingredients for their recipe:

- ✓ How can their senses help them to know if a food is high in fat, salt or sugars? They can taste the sweet or saltiness, and detect the ‘feel’ and taste of the fat.
- ? What can they not detect?
- ✓ Important nutrients like vitamins and minerals, so knowledge and labels, are also important. As above, pupils should remember that fresh fruit and vegetables usually do not have nutrition labels.

**IMPORTANT: It is not always possible to tell if a food is high in some nutrients. For example, some breakfast cereals are high in salt, so it is always important to read the label. To explore this**



further, see the short extension ideas for a tasting and reading labels activity.

### Changing foods by preparing and cooking

20 mins

Using myfoodspace, view the video for your chosen recipe, or allow pupils to watch the video for the recipe their group has chosen. Pause the video at each stage to ask the class what they think is happening:

#### Getting ready

- ? Why is it important to have clean hands, worktops and equipment? (you can follow this up in detail using [Pupil Sheet 7](#) and the 'micro-organisms' slide)
- ✓ Harmful micro-organisms can cause food poisoning or stomach upsets (you can contrast this with the yeast in the pizza recipe, which is a helpful micro-organism that we use to make dough light and airy).

#### Preparing and mixing

- ? What changes can pupils see happening to their ingredients? Which of these are reversible, and which are irreversible? Use the 'heating' and 'mixing' slides.
- ✓ For example, you can't un-mix a smoothie or brownie batter, but with patience you might be able to un-mix some dry ingredients (like flour and chocolate chips).
- ? Which ingredients are soluble, and which are insoluble?
- ✓ Salt and sugar dissolve in water, but flour will not (although it is changed by water). Some parts of fruit are soluble, but the fibre from the flesh and skin is not, and can be sieved out (although you shouldn't, as this is good for you!).

#### Cooking

Cooking causes irreversible changes by heating the food. Can pupils compare what their senses might detect before and after cooking? Once food is mixed or cooked, they can't take out some of the salt, sugars or fat to make it a healthier choice.

- ? What would a cake be like without any sugar? Or a boiled samosa?
- ? But what would a sandwich be like with less mayonnaise? What could pupils put in instead as a healthier alternative to mayonnaise?

Pupils should see that for some recipes, they can make changes to make that food a healthier choice. But for some recipes, it's hard to do this. Food scientists develop healthier versions of some foods using ingredients we can't get at home.

- ? Can pupils think of some 'healthier' versions of common foods?
- ✓ Most supermarkets have healthier ranges that include reduced fat, sugars and salt.

This means we should choose healthier recipes when we can, or save some foods for 'now and then' snacks or treats. Labels help us make these choices.



## Plenary

5 mins

Review what pupils have learned:

- ✓ some foods are 'manufactured' and combine ingredients
- ✓ labels help us to understand what this means for nutrition
- ✓ using labels can help us make healthier choices
- ✓ we can sometimes modify recipes to reduce the sugar, salt and fat in them, especially for foods that aren't mixed or cooked, such as sandwiches, wraps etc
- ✓ some recipes depend upon fat or sugar for their texture
- ✓ we can sometimes choose healthier versions or avoid eating these foods too often.

## Differentiation

### Support

Some pupils may need help to identify which food group an ingredient belongs to, as they explore their recipe. They may need to be prompted with words to use for each sense, such as 'sweet', 'chewy', 'crunchy', etc. Some may need mixing, dissolving etc. demonstrated to them. You could do this as an extension activity using jam jars and a range of ingredients: flour, chocolate chips, salt, sugar, butter etc. Which wet or dry mixtures could they un-mix, and which could they not?

### Challenge

More able pupils could take their recipe and suggest changes to make it healthier. They could (in a separate session or at home) make each version, and compare the differences. Which version do they prefer? How would their preference affect how often they should eat this food? They could compare food labels for 'standard' and 'healthy options' for a range of foods, such as baked goods, ready meals and sweet or savoury snacks to see how the fat, salt and sugars differs.



## Assessment

**Pupil Sheet 9** provides an assessment quiz for you to use after Lesson 1, or after both lessons are complete. You may want to show the eatwell plate slide for questions 1-4.

### Answers:

- 1 Crisps, sausages, biscuits and cakes, samosas, fried fast food, takeaways and pastry are examples of foods that can be high in fat
- 2 Fruit and vegetables, and bread, rice, potatoes, pasta and other starchy foods
- 3 Growth and repair
- 4 Fruit and vegetables and meat, fish, eggs, beans and other non-dairy sources of protein (they may also be high in salt)
- 5 Chocolate, cola and sweets
- 6a Sausage
- 6b Jacket Potato
- 6c Lunch B
- 7 5 (the eatwell plate shows what they are) Foods that are high in fat and or sugar are not essential to a healthy diet
- 8 On the front of the packet
- 9 More green and fewer reds (amber is OK)
- 10 Sugars, fat, saturated fat and salt
- 11 Energy
- 12 Water

You can also assess pupils through:

- their completed worksheets and extension work
- their recollection of Lesson 1 content during Lesson 2 or the extension lessons below
- how they articulate their knowledge and understanding during class discussions and role-plays
- how they use their skills to select appropriate food choices during lessons or extension activities.





## Shorter extension activity ideas for Science / PSHE

- (Less able pupils) Create a giant 'eatwell plate' display and cover it in examples of foods that are appropriate for each food group (they can use the eatwell plate diagram for inspiration).
- (More able pupils) Explore the number of calories in foods by using the nutrition label. What does '100 calories' of each food look like? Pupils could use nutrition labels, calculators, measuring scales and a digital camera to photograph 100 calorie portions of a range of foods. For example, if 100g blue cheese contains 363 calories, then they need  $(100/363 \times 100g = 28g)$  of cheese to get 100 calories).
- (Less able pupils) Get your 5 a day! Pupils could visit [www.5aday.nhs.uk](http://www.5aday.nhs.uk) to explore portion sizes and create a display to show a range of daily selections of five portions fruit and vegetables. For example, each pupil could select five fruit and vegetable portions, and add pictures of each, with their name, to a class display.
- (More able pupils) Choose a recipe using a cookery book from home, or from an internet recipe site. Use the internet, supermarkets and their own store cupboards at home to research the nutrition content of each ingredient, and use their data (perhaps using a spreadsheet) to estimate the calories and nutrition content of a portion.
- (All pupils) Think about which foods have traffic light labels (mainly manufactured foods like ready meals, pizzas and pies) and which do not, and compare these to which foods are advertised, and which are not. Why might we be encouraged so much to buy foods that may not be healthy choices? It's worth thinking about your class's cultural backgrounds and ask them to source different and relevant food labels.
- (All pupils) Create eatwell plates for different cultures to compare how they eat starchy foods, fruit and vegetables, protein etc. What are the foods that people from different cultures should aim to eat 'just a little' of? (Remember that the food groups on the eatwell plate apply to everyone, but different cultures may fill each section with different foods to others).
- (All pupils) Can pupils' senses spot salt, fat and sugar? Bring in a range of foods that are high in these nutrients, and some that may 'hide' their existence (such as some breakfast cereals and ready meals, which are often high in salt). Pupils taste a tiny amount of each food and predict which ones are high in fat, sugars or salt, and then read the labels to find out. Perhaps use foods which have lower fat/sugar/salt alternatives and discuss the difference between the two products. (WARNING: consult your school's health and safety policy before conducting a tasting session).
- (All pupils) Explore food intolerances and allergies. Does anyone in the class have one of these? Pupils could explore food packaging to discover allergy warnings and read the ingredients to find if they are listed. Why might there be an allergy warning on food which does not contain the allergen (e.g. nuts)? Pupils can find out more at [www.food.gov.uk/safereating/allergyintol/](http://www.food.gov.uk/safereating/allergyintol/).

## Food Technology: Make your party food!

Suggested time period: 2 x 50 mins    Ages: 9-11    Key Stage: KS2

This activity offers a flexible approach that can support any recipe, for one-off or batch production.

Pupils explore one of the Food Fanatics' recipes and make it for themselves. They can optionally 'investigate, disassemble and evaluate' similar products and recipes using recipe books and product packaging, and establish criteria for their recipe.

### Lesson 1:

- Use **Pupil Sheet 6** as your starting point – this provides the recipes chosen by each Food Fanatic.
- **Pupil Sheet 12** and the Food Technology slide presentation provides a structure to help the class to approach the task:
  - They can research similar products, using the internet and supermarkets, recipe books and their own ideas.
  - They should develop a set of criteria for their food, for its eating qualities, and also for its role in a healthy balanced diet.
  - Pupils should 'aim for green' and try to use ingredients that help to limit the salt, added sugars and fat in their recipe choice.
  - Can their choice also help them to eat plenty of starchy foods and fruit and vegetables?
- **Pupil Sheet 8** provides a blank recipe card for them to use, if they have modified the Food Fanatic recipe or chosen a different food to make. It should also be used to evaluate their recipe (see Lesson 2 below). Optionally, you can help pupils to cost their meal as a total, and also per portion.

### Lesson 2:

- Pupils can use **Pupil Sheet 7** and the Food Technology 'hygiene' slides to explore hygiene and safety in the kitchen, as well as food storage and expiration dates. You can also take this opportunity to explore:
  - allergies and intolerances, and how these affect food preparation. For example, include a discussion of safe food handling when cooking for someone with a nut allergy (they need to take special care to stop nuts accidentally getting into nut free foods. They should use clean utensils, bowls and work surfaces)
  - other things to check food for, such as bruising or other damage to fruit and vegetables
- They make their food using the Food Fanatic recipe or their modified version
- They should review their work, using **Pupil Sheet 12** and the 'evaluating your recipe' slide to help:
  - What went well? What could they do better?
  - What do their friends think of their food? Get other pupils to try some and describe the food. Do their comments match the description that the 'chefs' were aiming for? What differences are there, and why do pupils think these have happened?
- Pupils should use **Pupil Sheet 8** to consider the salt, fat and sugar in their recipe and which food groups it contains:
  - How much of each did they use?
  - Where on the eatwell plate would their recipe be placed? (Remember that some 'composite' foods can be included in more than one section, and pupils should consider the balance of food groups when deciding whether their food is an everyday choice or a treat).



## Answers to Pupil Sheet 7

- Pupils should wash their hands thoroughly using soap and warm water, and dry them thoroughly.
- Pupils should clean all work surfaces, utensils and equipment, including chopping boards and bowls.
- They should clean worktops using hot water and soap, and a disposable cloth or paper towel.
- They should clean utensils using hot water and washing up liquid, using a scrubber. Better still, use a dishwasher at high temperature.
- Keep raw meat and poultry sealed, away from uncooked food and refrigerated. Use a separate chopping board and utensils, and wash your hands after each time you touch raw meat or poultry.
- Wash hands before starting, after going to the bin, toilet, touching raw meat or poultry or a pet.
- Food should be stored according to instructions and kept sealed or covered in clean containers that are suitable for food. It should not be stored near the floor or cleaning fluids.
- Food should be 'piping hot': hot enough for steam to come out. Pupils should check that food is hot all the way through.
- Check that poultry, pork, burgers, sausages and kebabs are properly cooked all the way through by making sure that they are piping hot and the juices run clear. Whole cuts of beef or lamb can be cooked rare, as long as the outer surface has been sealed over a high heat.

Find out more at [www.eatwell.gov.uk/keepingfoodsaf/](http://www.eatwell.gov.uk/keepingfoodsaf/).



## Longer extension activity ideas

### Maths and ICT: How much is there?

Suggested time period: 1 or 2 x 50 mins

Ages: 9-11

Key Stage: KS2

This extension allows pupils to explore fractions and percentages using food labels.

- Use **Pupil Sheet 10**.
- Pupils can practice using the three food images and the questions below them (you will need the presentation slide of the eatwell plate from Science Lesson 1 for questions 3 – 5).
- Pupils could use real food packaging to estimate the percentages and fractions of fat and sugars in each one:
  - They can draw an outline of each package and shade this, as on their worksheet.
  - Working in pairs, they can estimate percentages or amounts and check against the nutrition or traffic light labels.
- Pupils can use ICT to help them
  - They can use spreadsheets to list nutrition information for a food in a simple table, and use this to calculate percentages and fractions. They could represent these using the charting function of the spreadsheet programme to create pie charts for each food.
  - They can use drawing programmes to create outlines of foods and shade them to show their fat and sugars contained.
- More able pupils can include other nutrients, including total carbohydrates and protein.

You can also use **Pupil Sheet 8** to explore menu costing, through Food Technology or as a stand-alone activity.

### English and ICT/PSHE: Spread the word!

Suggested time period: 1 or 2 x 50 mins

Ages: 9-11

Key Stage: KS2

This can support the 'speaking and writing' elements of the curriculum. In particular, it can support peer-led learning and activities to help younger pupils choose healthier foods as part of whole-school activities to support healthy eating – see ideas below.

Pupils can complete one of the options on **Pupil Sheet 11** and 'spread the word' about using food labels to get the balance right. This exercise reinforces and develops pupils' knowledge and understanding as they communicate important food and health information to their peers and parents.

- Pupils should select a challenge by reading what each Food Fanatic needs to do.
- They can work individually or in small groups, according to the task.

Pupils can use ICT as follows:

#### *Assembly*

Pupils can use slide presentation software and music creation or player software to add professionalism and impact to their assembly. They can use a word processor to script and plan their delivery, and digital cameras or video cameras to create images and clips to include, and to record their work.



### Poster

Pupils can use design, drawing and / or desktop publishing software to create their poster, and use digital cameras to create images to include.

### Family

Pupils can use a word processor to write their article. They could take images to include using a digital camera, and publish their work in a leaflet or to the school's internet site using desktop publishing or web design software.

### Music

Pupils could use music sequencing software to write their own tune. They could use digital mixing desks and recorders to record their music and voice, and software to edit their work. They could publish their song as an MP3 on the school website.



## Leading an Assembly about 'Getting the balance right'

You can use some of the presentation slides to deliver a brief assembly on the importance of getting the balance right, and how labels can help you to do this. You can also use this approach in lessons, especially to support less able pupils when introducing the traffic light concept and the eatwell plate.

Suggested slides and delivery ideas:

(You will also need large green, amber and red circles, for example cut from A3 sheets of sugar paper, and a large plastic plate or round tray – the larger the better.)

### *Show Lesson 1 – the variety of foods slide*

We often hear that to eat a healthy diet, we need to 'get the balance right'. But what does this mean?

Is it: Standing on one leg when we eat?

Holding a plate in each hand?

Eating sweet AND savoury food?

No! It's about eating the right amounts of different foods.

### *Show Lesson 1 – the eatwell plate slide*

*Hold up the plastic plate and try to balance it on your finger*

The 'eatwell plate' shows us how much we should eat of each sort of food. Each section is a different food group.

*Read out each group and ask pupils to suggest some foods that go in each one.*

When you eat a healthy diet, you eat the right amount of food from each group. If I eat the right amount of foods from each section, my plate will be balanced. But if I just eat foods from one or two sections, or too much of one sort of food, my plate won't be balanced – it'll fall! *(You could try and demonstrate this by placing a few foods on your plate!)*

Go through the plate, showing which foods we should eat PLENTY of, which foods we should eat SOME of, and which foods we should try not to eat too much of.

What can help us try not to eat too much salt, fat or sugars? Signs.

### *Show Lesson 1 – the traffic light labels slide*

Signs help us to be careful. What signs have pupils seen today? What about traffic lights on the way to school?

Traffic lights are signs that help drivers to be careful when they are on the road. They can also help us to be careful when we eat. Traffic light labels on foods help us by showing how much a food contains of the things we should try to eat less of: fat, salt and sugars.

### *Hold up a green circle*

Green means 'go for it! It's a sign that we can eat these foods as an everyday choice – they are low in salt, fat or sugars.



### Hold up an amber circle

Amber tells us that the food is an OK choice.

### Hold up a red circle

Red is a sign that the food is high in salt, fat or sugars. We should try to eat less of these foods – perhaps just as a treat.

We can use signs like these to help us 'get the balance right'. As well as eating plenty of fruits and vegetables, and starchy foods, there are some foods we should try to eat less of. Signs can help us do this.

You don't need to avoid 'reds' all the time, but if you choose a food with some 'reds', think about what else you eat with it, and 'aim for green' most of the time. If you choose labels with more greens and less reds, it's a great way to help you get the balance right.

## Support for whole-school activities

These materials can help your wider efforts to create a safe and healthy school, for example:

- To support a whole-school 'healthy eating week':
  - Use the lessons to prepare for the week and help pupils to design healthy and tasty meals for their week (both at school and at home) using what they learn about nutrition and traffic light labels.
  - Pupils could prepare the healthy recipes that the Food Fanatics choose, for parents to try at an open evening about healthier food in school.
  - Use the assembly idea as part of your assemblies during the week – or even to help parents.
  - Use the extension lessons and ideas to spread the word about healthier food choices across school and into your community.
- To support changes to your school catering and improve pupils' choices and decision-making at dinner time, for example in support of the School Food Trust.
- To support your work to gain or maintain accreditation under the 'Healthy Schools' initiative.
- In Wales, to support your school's work towards the Appetite for Life action plan.
- In Scotland, your work within the Hungry for Success framework, and the Schools (Health Promotion and Nutrition)(Scotland) Act.
- In Northern Ireland, to support your implementation of the New Nutritional Standards and the Investing for Health initiative.

## Curriculum Links

Curriculum links are shown below for Science, PSHE/PSE/Personal Development and Design & Technology. They are not exhaustive and you may be able to make further links depending on how you use the materials. Depending on your approach, the materials also cover areas of English, Mathematics (in particular percentages and fractions) and ICT.

Under each section heading, you will see which slide presentations and pupil sheets relate to each subject and topic area. Remember that you can modify the presentations, or extract slides, to support how you approach the topics in PSHE/PSE/Personal development.

### England QCA Scheme of Work Units at KS2

#### Science

*Use Pupil Sheets 1-7, 9, 13 and slide presentations 1 and 2*

(Review of) 2a Health and growth

3a Teeth and eating

5a Keeping healthy

#### Design & Technology

*Use Pupil Sheets 6, 7, 8, 12, 13 and slide presentation 3*

3b Sandwich snacks

5b Bread

5d Biscuits

### England National Curriculum KS2

#### Science

*Sc2 Life processes and living things*

*Use Pupil Sheets 1-7, 9, 13 and slide presentations 1 and 2*

Life processes

1. that the life processes common to humans and other animals include nutrition, movement, growth and reproduction





Humans and other animals

Nutrition

2. about the need for food for activity and growth, and about the importance of an adequate and varied diet for health

Micro-organisms

6. that microorganisms are living organisms that are often too small to be seen, and that they may be beneficial [for example, in the breakdown of waste, in making bread] or harmful [for example, in causing disease, in causing food to go mouldy].

*Sc3 Materials and their properties*

*Use food fanatics' recipe sheets (Pupil Sheet 6)*

Changing materials

1. to describe changes that occur when materials are mixed [for example, adding salt to water]

2. to describe changes that occur when materials [for example, water, clay, dough] are heated or cooled

3. that temperature is a measure of how hot or cold things are

4. about reversible changes, including dissolving, melting, boiling, condensing, freezing and evaporating

6. that non-reversible changes [for example, vinegar reacting with bicarbonate of soda, plaster of Paris with water] result in the formation of new materials that may be useful

Separating mixtures of materials

1. how to separate solid particles of different sizes by sieving [for example, those in soil]

2. that some solids [for example, salt, sugar] dissolve in water to give solutions but some [for example, sand, chalk] do not

3. how to separate insoluble solids from liquids by filtering

**PSHE**

*Developing a healthy, safer lifestyle*

*Use Pupil Sheets 4, 5, 7, 11, 13*

1. what makes a healthy lifestyle, including the benefits of exercise and healthy eating

2. that bacteria and viruses can affect health and that following simple, safe routines can reduce their spread



## Design & Technology

*Use Pupil Sheets 6, 7, 8, 12, 13 and slide presentation 3*

*Developing, planning and communicating ideas*

1. generate ideas for products after thinking about who will use them and what they will be used for, using information from a number of sources, including ICT-based
2. develop ideas and explain them clearly, putting together a list of what they want their design to achieve
3. plan what they have to do, suggesting a sequence of actions and alternatives, if needed
4. communicate design ideas in different ways as these develop, bearing in mind aesthetic qualities, and the uses and purposes for which the product is intended.

*Working with tools, equipment, materials and components to make quality products*

1. select appropriate tools and techniques for making their product
2. suggest alternative ways of making their product, if first attempts fail
3. explore the sensory qualities of materials and how to use materials and processes
6. follow safe procedures for food safety and hygiene.

*Evaluating processes and products*

1. reflect on the progress of their work as they design and make, identifying ways they could improve their products
2. carry out appropriate tests before making any improvements
3. recognise that the quality of a product depends on how well it is made and how well it meets its intended purpose



## National Curriculum for Wales at KS2

### Science

Use Pupil Sheets 1-7, 9, 13 and slide presentations 1 and 2

*Interdependence of organisms*

- The need for a variety of foods and exercise for human good health

### PSE

Use Pupil Sheets 4, 5, 7, 11, 13

*Health and emotional well-being*

- take increasing responsibility for keeping the mind and body safe and healthy
- the features and physical and emotional benefits of a healthy lifestyle, *e.g. food and fitness*

### Design & Technology

Use Pupil Sheets 6, 7, 8, 12, 13 and slide presentation 3

*Skills - Food*

7. plan and carry out a broad range of practical food preparation tasks safely and hygienically
8. apply current healthy eating messages and consider nutritional needs when undertaking food preparation tasks
9. classify food by commodity/group and understand the characteristics of a broad range of ingredients, including their nutritional, functional and sensory properties, *e.g. meat, fish, fruit, vegetables*



## Northern Ireland Curriculum (revised) at KS2

### The world around us – science and technology

*Use food fanatics' recipe sheets, Pupil Sheets 1-7, 9, 13 and slide presentations 1 and 2*

- How do our bodies work?
- What changes occur to everyday substances?

### Personal development – health, growth and change

*Use Pupil Sheets 4, 5, 7, 11, 13*

- Understanding the benefits of a healthy lifestyle, including physical activity, healthy eating, rest and hygiene
- Understanding that bacteria and viruses affect health and that risks can decrease when basic routines are followed

## Scotland 5-14 Guidelines

### Environmental studies - science

*Use Pupil Sheets 1-7, 9, 13 and slide presentations 1 and 2*

- Promoting health understanding through the context of a healthy balanced diet, using the eatwell plate as a model
- Providing practical examples of recipes and activities to support food choice in relation to health
- Understanding the type, role and function of energy and a range of nutrients provided by food in the diet
- Understanding the properties of materials and how materials can be changed by heating, cooling or mixing
- Using the senses to describe materials

### Environmental studies – technology

*Use Pupil Sheets 6, 7, 8, 12, 13 and slide presentation 3*

- Developing their technological capability through designing and making activities with fruit and vegetables
- Encouraging pupils to taste, handle and find out about a variety of fruit and vegetables
- Investigating food preferences and making food products to meet a need
- Developing a range of practical food skills
- Learning about food and nutrition issues
- Implementing realistic and effective food hygiene and safety procedures
- Designing and making food products – fruit and vegetable based recipes



## Health education – physical health

Use Pupil Sheets 4, 5, 7, 11, 13

- Showing their knowledge and understanding of the impact health choices can have on the quality of health, e.g. varied diet

## Scotland 3-18 Curriculum for Excellence draft outcomes

Looking ahead, these materials will support the following outcome areas within the draft Curriculum for Excellence:

### Health and wellbeing

Food and Health:

- Nutrition
- Safe and hygienic practices
- Food and the consumer

As noted above, depending on your delivery relevant areas within Mathematics (Number, money and measurement: fractions, decimals and percentages) and Literacy and English (Organising and using information, and creating texts) can also be supported.



## Professional development

We're keen for pupils to make the most of any curriculum opportunities to explore, prepare and enjoy safe, healthy food. To help you, your DVD includes four useful professional development videos.

### *An introduction to myfoodspace*

Orla Hugueniot, a nutritionist with the Food Standards Agency, introduces myfoodspace and explains how it can help teachers of 9-11 year olds develop knowledge, skills and attitudes to healthy food and eating.

### *The eatwell plate (two videos)*

These two videos feature Orla describing **why** the eatwell plate is an important aid in helping children make good eating choices and **how** the eatwell plate can help when children are exploring cookery and healthy meals.

### *A guide to food labels*

Claire Boville, head of nutrition labelling, promotions and dietetic foods with the Food Standards Agency, describes why labelling is an important subject to teach within food technology and making healthy lifestyle choices.



## Useful contacts and sources of further information

### Curriculum

England	<a href="http://curriculum.qca.org.uk/">http://curriculum.qca.org.uk/</a>
Wales	<a href="http://www.wales.gov.uk">www.wales.gov.uk</a>
Northern Ireland	<a href="http://www.nicurriculum.org.uk">www.nicurriculum.org.uk</a>
Scotland	<a href="http://www.curriculumforexcellencescotland.gov.uk">www.curriculumforexcellencescotland.gov.uk</a>
FSA Competences	<a href="http://www.food.gov.uk/healthiereating/nutritionschools/competencies">www.food.gov.uk/healthiereating/nutritionschools/competencies</a>
Licence to Cook	<a href="http://www.licencetocook.org.uk">www.licencetocook.org.uk</a>

### Healthy eating

Food Standards Agency	<a href="http://www.food.gov.uk">www.food.gov.uk</a>	<a href="http://www.eatwell.gov.uk">www.eatwell.gov.uk</a>
5 A DAY	<a href="http://www.5aday.nhs.uk">www.5aday.nhs.uk</a>	
British Nutrition Foundation	<a href="http://www.nutrition.org.uk">www.nutrition.org.uk</a>	
Allergy UK	<a href="http://www.allergyuk.org">www.allergyuk.org</a>	
FSA Allergy information	<a href="http://www.eatwell.gov.uk/healthissues/foodintolerance/">www.eatwell.gov.uk/healthissues/foodintolerance/</a>	
British Dietetic Association	<a href="http://www.teenweightwise.com">www.teenweightwise.com</a>	

### Food safety

Food link	<a href="http://www.foodlink.org.uk">www.foodlink.org.uk</a>
FSA Keeping food safe	<a href="http://www.eatwell.gov.uk/keepingfoodsaf">www.eatwell.gov.uk/keepingfoodsaf</a>

### Body image and mental health

Beating Eating Disorders	<a href="http://www.b-eat.co.uk">www.b-eat.co.uk</a>
Young Minds	<a href="http://www.youngminds.org.uk">www.youngminds.org.uk</a>

The recipes contained in myfoodspace have been taken from the following Food Standards Agency projects/initiatives: Healthy Nosh for less Dosh, Get Cooking, 5 a Day the Bash Street Way, and Healthy Living.

## Appendix I : Fat, Saturated Fat, Sugars, Salt and Wholegrains

### Fat

It's important to have some fat in our diet because fat helps the body absorb some vitamins, it's a good source of energy and a source of the essential fatty acids that the body can't make itself. Although it's important to try and eat less fat, we also need to think about the types of fat we are eating. We should be cutting down on foods that are high in saturated fat or trans fats and replacing these foods with ones that are high in unsaturated instead such as avocados, nuts and seeds, sunflower, rapeseed and olive oil and spreads. We should also be having more omega fatty acids, which are found in oily fish. These fatty acids have been shown to help protect against coronary heart disease.

For further information: [www.eatwell.gov.uk/healthydiet/nutritionessentials/fatssugarssalt/fats/](http://www.eatwell.gov.uk/healthydiet/nutritionessentials/fatssugarssalt/fats/)

### Saturated fat

Eating too much saturated fat can increase the amount of cholesterol in your blood, which increases the chance of developing heart disease. Nutrition labels, including the traffic light front of pack labels, include saturated fat. Some pupils may be aware of saturated fat and as such should be encouraged to think about the amount of saturated fat in food and use this when making food choices. They should aim to minimise their saturated fat intake by avoiding foods including: meat products, meat pies, sausages, hard cheese, butter and lard, pastry, cakes and biscuits, cream, soured cream and crème fraîche, coconut oil, coconut cream, and palm oil.

For further information: [www.eatwell.gov.uk/healthydiet/nutritionessentials/fatssugarssalt/fats/](http://www.eatwell.gov.uk/healthydiet/nutritionessentials/fatssugarssalt/fats/)

### Sugars

Sugars occur naturally in food such as fruit and milk. However, we don't need to cut down on these types of sugars, it is food containing added sugars that we should be cutting down on.

Food and drinks (including foods such as honey and fruit juice) containing lots of sugars can cause tooth decay particularly if you have them between meals so we should try to eat these types of foods only occasionally. The sugars found naturally in whole fruit are less likely to cause tooth decay because the sugars are contained within the structure of the fruit. However, when fruit is juiced or blended, the sugars are released. Once released, these sugars can damage teeth, much like added sugars, especially if fruit juice is drunk frequently. Fruit juice is still a healthy choice, and counts as one of the five portions of fruit and vegetables we should be having every day, but it is best to drink fruit juice at meal times.

Pupils should aim to cut down their intake of added sugars found in foods such as fizzy and juice drinks, sweets and biscuits, jam, cakes, pastries and puddings and ice creams.

For further information: [www.eatwell.gov.uk/healthydiet/nutritionessentials/fatssugarssalt/sugars/](http://www.eatwell.gov.uk/healthydiet/nutritionessentials/fatssugarssalt/sugars/)





## Salt

Eating too much salt can raise your blood pressure. And people with high blood pressure are three times more likely to develop heart disease or have a stroke than people with normal blood pressure. Three-quarters of the salt we eat is already in the food we buy. So you could easily be eating too much salt without realising it. The maximum amount of salt children should be having varies with age, for a young person between 7 – 10 years the recommended maximum is 5g, from the age of 11 upwards the maximum intake is 6g, the same as for an adult. If you're buying foods, even those aimed at children, remember to check the information given on the labels so you can choose those with less salt.

For further information: [www.eatwell.gov.uk/healthydiet/nutritionessentials/fatssugarssalt/salt/](http://www.eatwell.gov.uk/healthydiet/nutritionessentials/fatssugarssalt/salt/)

## Wholegrains

It's a good idea to try to eat more fibre because most people in the UK don't have enough fibre in their diets. Insoluble fibre and proper hydration can help prevent constipation, and soluble fibre may help to reduce the amount of cholesterol in the blood. Wholegrain varieties of starchy foods, such as wholemeal bread, wholegrain breakfast cereals, brown rice and wholegrain pasta, are particularly good sources of insoluble fibre.

We have not specifically mentioned wholegrains in the pupil sheets, but suggest that you include this issue with your pupils where you feel it is appropriate.



## Appendix II : Food Safety

Food labelling helps ensure that food is safe to eat.

Date marking of food helps manufacturers, retailers and consumers maintain food safety and quality.

Foodstuffs that require an appropriate durability indication, are marked with either a **"USE - BY"** or **"BEST - BEFORE"** date. **"Sell - by "** or **"display until"** are phrases still quite commonly heard, but these terms are **NOT** legal on food items and are placed on foods by retailers to aid stock rotation.

### Use by

You will see 'use by' dates on food that goes off quickly, such as smoked fish, meat products and ready-prepared salads. Don't use any food or drink after the end of the 'use by' date on the label, even if it looks and smells fine. This is because using it after this date could put your health at risk. For the 'use by' date to be a valid guide, you must follow carefully storage instructions such as 'keep in a refrigerator'. If you don't follow these instructions, the food will spoil more quickly and you may risk food poisoning.

'Use by' does not always mean 'eat by'. If a food can be frozen its life can be extended beyond the 'use by' date. But make sure you follow any instructions on the pack – such as 'freeze on day of purchase', 'cook from frozen' or 'defrost thoroughly before use and use within 24 hours'. It's also important you follow any instructions for cooking and preparation shown on the label. Once a food with a 'use by' date on it has been opened, you also need to follow any instructions such as 'eat within a week of opening'. But if the 'use by' date is tomorrow, then you must use the food by the end of tomorrow, even if you only opened it today.

### Best before

'Best before' dates appear on a wide range of frozen, dried, tinned and other foods. The 'best before' dates are more about quality than safety, so when the date runs out it doesn't mean that the food will be harmful, but it might begin to lose its flavour and texture. However, you shouldn't eat eggs after the 'best before' date. This is because eggs can contain salmonella bacteria, which could start to multiply after this date. Remember, the 'best before' date will only be accurate if the food is stored according to the instructions on the label, such as 'store in a cool dry place' or 'keep in the fridge once opened'.



## Appendix III : Food intolerances and allergies

There are hundreds of foods which could potentially cause an allergic reaction. Food allergen labelling legislation concentrates on the most common ones. Every pre-packed food sold in the UK, or the rest of the European Union (EU), must show clearly on the label if it contains one of the following as an ingredient (or if one of its ingredients contains, or is made from, one of these):

- celery
- cereals containing gluten (including wheat, rye, barley and oats)
- crustaceans (including prawns, crabs and lobsters)
- eggs
- fish
- lupin (flour made from lupin seeds is sometimes used in bread and pastry)
- milk
- molluscs (including squid, mussels and oysters)
- mustard
- nuts (such as almonds, hazelnuts, walnuts, Brazil nuts, cashews, pecans, pistachios and macadamia nuts)
- peanuts
- sesame seeds
- soybeans
- sulphur dioxide and sulphites (preservatives used in some foods and drinks) at levels above 10mg per kg or per litre

As well as listing the allergens in the ingredients list on the label of pre-packed foods, many food products have a statement or an allergy advice box on the label saying they contain a certain food, for example nuts, milk or eggs. But it is not compulsory for food labels to have this type of statement.

Some food labels also say, for example, 'may contain nuts' or 'may contain seeds'. This means that even though nuts or seeds are not deliberately included in the food, the manufacturer can not be sure that the product does not accidentally contain small amounts of them.

Food allergy and food intolerance are both types of food sensitivity. When someone has a food **allergy**, their immune system reacts to a particular food as if it isn't safe. If someone has a severe food allergy, this can cause a life-threatening reaction.

Food **intolerance** doesn't involve the immune system and is generally not life-threatening. But if someone eats a food they are intolerant to, this could make them feel ill or affect their long-term health.



### *Practical steps to help pupils with a food allergy or intolerance*

Food allergies can be life-threatening. It is the parents' responsibility to inform you of food allergies. Your school should have a policy and an agreed action plan. This should include designated staff, who are trained to deal with an emergency in a manner agreed with each pupil's parents and GP. But you can help food allergic pupils by encouraging them:

- Not to swap or 'trade' food with other pupils
- To avoid eating foods with unknown ingredients or known to contain relevant allergens
- To take increasing responsibility for managing their food allergy
- To notify an adult immediately if they think they may have eaten something they should not
- To report any teasing or bullying that arises because of their allergy



'helping young people to choose,  
cook and eat safe healthy food'

For more information about the Food Standards Agency's work  
with schools, visit: [food.gov.uk/schools](http://food.gov.uk/schools)

For further information and advice about food,  
visit the Food Standards Agency's websites:

[eatwell.gov.uk](http://eatwell.gov.uk)  
[food.gov.uk](http://food.gov.uk)  
[salt.gov.uk](http://salt.gov.uk)

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