



How can we ensure that the food we eat keeps both us and our environment healthy?

Lesson overview:

In this lesson, children learn about seasonality and food miles. They are then challenged to research which foods are in season and the nutrients that are in them. This information is then used to plan a healthy recipe for their school chef.

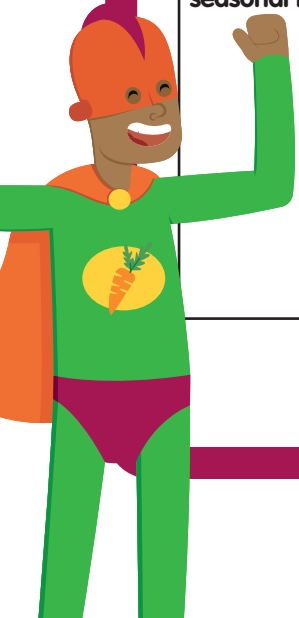
This lesson could be used to start the children thinking about how they might design an idea, invention or innovation that will help farmers continue to care for the environment and be climate superheroes for their Farmvention competition entry.

Equipment needed:

- Access to the internet or library

Presentation guidance:

<p>Slide 2: What are seasonal foods?</p>	<ul style="list-style-type: none"> • Use the presentation to introduce the concept of seasonality and how it impacts the climate. • 'Seasonal foods' are ones which grow in particular seasons based on the weather conditions in that season. Foods that are in season often taste better and they are usually cheaper than foods that aren't in season, but there's an even better reason to eat seasonally; it's much better for the environment. • Some examples of seasonal foods in the UK include: <ul style="list-style-type: none"> - Spring: Apricots, cherries, , cucumber, new potatoes, spring onions, peppers, mushrooms, rocket, rhubarb - Summer: Blueberries, strawberries, tomatoes, aubergines, courgettes, sweetcorn, turnip - Autumn: Bramley apples, pears, beetroot, broccoli, celery, potatoes, pumpkin, turnips, parsnips, leeks - Winter: Cranberries, Brussels sprouts, clementines, shallots, cauliflower • Share the full list here: www.countrysideonline.co.uk/back-british-farming/cook-and-eat/the-great-british-larder/
<p>Slide 3: What are the benefits of eating seasonal foods?</p>	<ul style="list-style-type: none"> • Explain that growing fruit and vegetables out of season requires much more 'artificial' input, for examples strawberries grown in winter would need lots of heat and light that they wouldn't get from the UK winter weather. This means that the carbon footprint of this out-of-season produce is much higher • Eating produce that is not in season in the UK could also increase the carbon footprint of your food due to some of this produce being flown in from other countries where it is in season. • The term 'food miles' is used to describe how far food has travelled to get to the shops it is sold in, and increasing these food miles equates to an increase in pollution from the vehicles used to transport the food. • This video is a short introduction to the concept of food miles: • https://www.youtube.com/watch?v=b7rn5hH5XN8





**Slide 4:
Nutrition**

- Use the presentation to discuss what is included in a healthy balanced diet.
- You could challenge the children to think about what nutrients were in the last meal they ate and how it could have been made healthier.
- Ask the children to consider the following questions:
 - Can you think of a food you really like that contains lots of protein?
 - Can you think of some foods that are high in fibre?
 - What nutrients were in your breakfast?
 - Why is it important not to eat too many foods that contain lots of fat or sugar?
- Explain that humans need to eat a balanced diet that includes protein, fibre, carbohydrates and vitamins and minerals.
- A good balance includes lots of fruit and vegetables (5-7 portions a day), some foods that contain protein such as red meat or kidney beans, some foods containing starchy carbohydrates such as rice, potatoes and pasta, some dairy and a very small amount of foods that are high in fat or sugar.
- To remain healthy, we need lots of different vitamins and minerals that we get from our foods, such as vitamin C, calcium and iron.
- Children often think that the term 'diet' refers to a low-calorie or low fat dieting plan followed in order to lose weight because of the way the word is commonly used. In science, 'diet' refers to everything a person or animal eats.

Slide 5: The challenge

- Set the scene: You are a school chef planning a healthy meal for the children in your school, but you want to mainly use ingredients that are in season to keep your carbon footprint low.
- Research which foods are in season at the moment and which nutrients are in them then use this information to plan a healthy meal.
- This investigation will need to be carried out with the support of secondary sources – books and/or the internet. Alternatively, if you have access to a farm shop or local market, children could ask in person or send a family member or teacher with some questions to ask.
- Ask the children to consider the following questions:
 - Which foods do you think are in season at the moment?
 - Where will we find information about which foods are in season?
- A good starting point would be to find out which of the foods they eat regularly are currently in season and which nutrients can be found in these.
- Children may come across foods that they are unfamiliar with, providing a great opportunity to try new foods if these are available.
- Children could record their ideas by drawing a labelled picture of the meal, including the nutrients in it, by writing a recipe or by making their meal and taking photographs.
- **Health and Safety:** Ensure children are closely supervised while preparing food, and that you model to correct techniques for potentially dangerous food preparation, such as chopping food or using appliances that are likely to be very hot or sharp. Also ensure that good hygiene processes are followed in terms of handwashing, and that any meat prepared is fully cooked before serving.





<p>Slide 6: Conclusion</p>	<ul style="list-style-type: none"> • Lead a discussion about what the children found out from their investigations. • Ask the children to consider the following questions: <ul style="list-style-type: none"> - Which foods are currently in season? - Where you surprised to see how many foods were in season? Did you think it would be more or less than it was? - Was it easy to plan a meal when your ingredients were limited? - What do you think the impact on the environment would be if you always ate seasonably? - What if everyone ate seasonably? - Where could we take our project next? • The children could prepare and cook their meal for friends or family. They could design packaging for their meal, thinking about sustainable packaging materials and how to make it appear attractive to the target market (children or other school cooks). They could explore which foods are in season at different times of the year and plan a different meal. They could also research how seasons are different in different parts of the world and how this affects what crops can be grown, for example in countries around the equator it is hot all year round.
<p>Farmventing</p>	<ul style="list-style-type: none"> • Encourage the children to think about how they could use their learning about seasonality and food miles to help them design an idea, invention or innovation that will help farmers continue to care for the environment and be climate superheroes.

Possible links to the National Curriculum

Subject	Topic	Objective
Design Technology	Cooking and Nutrition	<ul style="list-style-type: none"> - Understand and apply the principles of a healthy and varied diet - Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques - Understand seasonality and how a variety of ingredients are grown, reared, caught and processed
	Design	<ul style="list-style-type: none"> - Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
Science	Working Scientifically	<ul style="list-style-type: none"> - Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
	Year 3 Animals, Including Humans	<ul style="list-style-type: none"> - Identify that animals, including humans, needs the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.

