



Characteristics of good practice in teaching food and nutrition education in secondary schools

Introduction

While the curricula and qualifications around the UK set out what should be taught, and teacher trainers and professional development providers focus on themes such as pedagogy, class room management and resource provision, there is little in the way of specific guidance on teaching modern food and nutrition in UK secondary schools.

In the past, this 'guidance' was often passed on through experienced teachers, local authority advisers and other experts. Now, with low numbers of teachers being 'food' trained, fragmented support and non-food specialist teachers regularly teaching in the classroom, BNF believed that there was a need to provide guidance and direction, and highlight key characteristics of good practice. It was also important that this 'guidance' was UK wide – while there are curricula differences, there are similarities with regard to professional competence, classroom management, knowledge and skills.

The inspiration of this work was based on the 1996 publication *Characteristics of good practice in food technology* (Ofsted), which was produced to help schools implement food technology as part of the National Curriculum for Design and Technology in England. The work also builds on the *Food teaching in secondary schools: a framework of knowledge and skills* (PHE/DfE 2015), and the Food Teacher Professional Portfolio (FTPP) programme, which ran from 2015 to 2018 supporting professional development needs of secondary school food teachers.

This guide sets out a series of characteristics of good practice, determined via consensus building exercises with the secondary school food teaching community from the UK, which can be adopted as part of a good practice approach by all those that teach food and nutrition.

Scope and purpose

This guide aims to:

- define the key characteristics of good practice that are specific to teaching food and nutrition;
- exemplify these characteristics of good practice in UK secondary schools;
- highlight the key features of achieving these characteristics, showing how these can be put into practice, with teacher insights and suggestions of how to develop these for the future;
- support the food and nutrition teaching community, especially trainee, newly qualified and non-food specialist teachers;
- enable practising teachers to audit their own practice to plan and implement personal and professional development goals.

While this guide sets out 11 key characteristics, with exemplification, it is acknowledged that other characteristics and practice exist. Therefore, this guide is not an exhaustive or static list to be followed rigorously, rather, it is a starting point to support reflection of current practice in order to develop teaching and learning further.

The guide is divided into three key areas:

Section A – professional competence and the wider school;
Section B – teaching the curriculum and managing the subject;
Section C – knowledge and skills, specifically good food hygiene and safety, food skill competency, food provenance know-how, nutrition proficiency, consumer awareness, and food science aptitude.

For every characteristic, in each of the three areas, five key features have been identified:



The knowledge and skills required by staff to deliver effective lessons and activities.



The planning and implementation of learning, policies, procedures and processes.



The teaching and learning strategies that are undertaken, which enable learners to demonstrate and apply their knowledge and skills.



The resources, equipment and ingredients required to support planned learning intent.



The assessment strategies that are implemented and monitored to assess learning impact, as well as teaching delivery.

Who is this for?

This guide has been developed for a variety of audiences, specifically those that teach, or are training to teach, food and nutrition in secondary schools throughout the UK.

Key audiences are:

- practising secondary school teachers, including non-food specialist teachers;
- newly qualified teachers;
- teacher training providers;
- trainee secondary school teachers.

How can it be used?

It is anticipated that this guide can be used in a variety of ways, such as:

- showcasing practice through defined characteristics;
- encouraging consideration of other characteristics of good practice leading to further discussion and implementation;
- promoting lifelong personal and professional development, helping individuals to audit their knowledge and skill-set;
- developing the management of the subject;
- acknowledging the role of the teacher in the whole school approach to health and wellbeing.

Space has been provided for staff to add other ways in which the characteristics could be put into practice.

Note: It is acknowledged that terminology may be different around the UK, e.g. Schemes of Work may be known as Schemes of Learning or Teachers' Guides.

Contents

Section A	4
Developing professional competence	4
Being an accomplished food teacher	7
Taking a whole school approach	11
Section B	14
Teaching the curriculum	14
Managing the subject	18
Section C	22
Good food hygiene and safety practices	22
Food skill competency	26
Food provenance know-how	29
Nutrition proficiency	32
Consumer awareness	35
Food science aptitude	38
Further sources of information and support	42
Acknowledgements	43

Section A

Developing professional competence

A characteristic of good practice in secondary schools is that subject specialist teachers are well qualified for their role through initial training or professional development, take an active part in the wider food teaching community, have a passion for food education and are willing to develop their knowledge and skills.

Key features



Staff are active professionals in the subject, take part in consultations that impact their work, contribute to discussions and represent food and nutrition education in their school. They are up-to-date and play an active role in the food teaching community. Staff share their own good practice, innovation and ideas within food teaching networks. They make effective use of subject specialist help, knowledgeable colleagues and a wide range of training activities to support their personal and professional development.



Staff are up-to-date with the curriculum requirements, legislation, professional standards, and good practice in food and nutrition education, and adopt these in their teaching preparation, planning and delivery.



Resources are developed and selected to support learning intent, based on evidence based sources. Subject specialist help is accessed to enhance resource provision.



Staff develop effective pedagogical approaches, which demonstrate inclusivity and are relevant to food and nutrition education. They share good practice, supporting colleagues.



Staff review their knowledge and skills, linking these to performance management objectives, and take responsibility to develop a professional development plan for themselves, and other staff they support.



Toni Munday

Cornwallis
Academy

Kent, England

Throughout my journey I have had incredible support and encouragement from my department colleagues as well as full support from Senior Leaders within my school. I started as a technician in 2008 and was awarded Higher Level Teaching Assistant status in 2011 – I see this as the start of my teaching career. The next year I started teaching two classes a week, increasing over time. So, in 2016 I enrolled on a teacher training course, qualifying in July 2018. It's certainly a different route into teaching!

I regularly undertake CPD to increase my subject knowledge and skills through courses and reading material, social media sites and forums. It's important to stay up-to-date in my field. I have learnt that sharing good practice and resources makes the job easier and more enjoyable, and that reflection of my practice is key to improving my own professional development.

TONI'S TIPS

1. Don't be afraid to change something if it is not working. Reflect and adapt, or try something completely new.
2. Attend as many face-to-face events as you can, chat with other teachers and share good practice.
3. Keep up-to-date with curriculum and qualification changes, join a food teacher's forum to gain valuable information.



Putting the characteristic into practice

Staff underpin planning and learning activities with national standards and best practice

- Reference key food and nutrition curriculum, qualifications and framework documents in school planning and policies and share the research and evidence base used.
- Use website alerts, newsletters from key organisations and social media to stay up-to-date.

Other examples:



Staff use effective pedagogy approaches

Approaches could include using class, group and individual work to:

- develop safe and effective practical skills through whole class and spot demonstrations, pre-recorded video instruction, step-by-step photo recipes and masterclasses;
- undertake practical investigations using a scientific approach to understand the functional and chemical properties of ingredients;
- plan and cook meals taking into account lifestyle, consumer choice, nutritional need, cost, time and portion size. Learners explain, justify and present their work to others;
- explore a range of ingredients and processes from different culinary traditions;
- create new, or modify existing, recipes for a specific desired need;
- use sensory evaluation to explore the choices that people make;

- carry out nutritional analysis to evaluate the contribution of food and drink to a diet, considering dietary changes that may be required;
- use comparative testing to evaluate ready-made and home-made dishes in terms of taste, cost and nutrition;
- review the provenance of different food commodities, including aspects of seasonality, food security and sustainability;
- debate and discuss current food issues and topics to draw conclusions and consider actions.

Other examples:



Staff take an active role in the food education community

- Mentor staff in school, trainee teachers, newly qualified teachers and others.
- Participate in good practice networks with other professionals.

Other examples:



Putting the characteristic into practice

Staff have a personal action plan for professional development based on a needs analysis audit

- Review skills/knowledge and identify areas of development. For example, against the *Food teaching in secondary schools: a framework of knowledge and skills*.
- Develop a personal action plan.
- Bid for funding, explaining the benefits of training for your school and learners.

Further professional expertise by selecting appropriate professional development activities, such as:

- shadowing other teachers;



Other examples:

Staff share good practice and ideas that work well, as well as support others

- Run a workshop, make a presentation, publish a blog or article, share a teaching resource.

Other examples:



Insights

- Do not be afraid to ask for help. Working with other specialist colleagues in school, locally and nationally, is a great way to share expertise and ideas and learn from others. Use subject networks and organisations to share good practice.
- Practice! Practice! Practice! Learn from mistakes. This is particularly important if food is not your main area of expertise. Knowing and understanding when and where learners may make mistakes in practical lessons is a key to success.
- Take time to reflect on lessons and activities. What went well and what could be improved?
- Develop expertise and knowledge through engagement with other experts. Link with a local catering college, chef, dietitian or farmer/grower to learn new skills and knowledge that can be used in the classroom.



Going beyond

Attend courses to gain extra experience and/or qualifications.

Provide specialist support for non-specialist staff to upskill and promote confidence and competence.

Widen experience through working with industries/agencies that are relevant to the curriculum.

Take part in a mentoring programme to help others and further your own professional skills.

Section A

Being an accomplished food teacher

A characteristic of good practice in secondary schools is that staff have developed the required subject knowledge, skills and effective pedagogy approaches, and demonstrate personal qualities that are important in food teaching.

Key features



Staff have acquired key subject knowledge and skills and have developed an appropriate range of teaching and learning strategies and styles. They are committed to staying up-to-date with the subject and how it is taught and show a passion for food education. Staff balance tasks and priorities, displaying resourcefulness and flexibility. They are team players within the school, putting learners first.



Staff are efficient in their planning and preparation for lessons, developing effective systems, managing time well, and showing excellent organisational skills. They lead support staff effectively to improve the quality of learning.



Resources are created and selected that are up-to-date, evidence-based and high-quality, focusing on achieving learning intent and the needs of different learners. Staff select appropriate ingredients and equipment to support learning intent.



Teaching is always of the highest possible standard enabling learners to apply their knowledge in different contexts, and demonstrate their practical skills accurately and safely.



Staff review and evaluate the success of their teaching regularly. They plan an effective sequence of learning demonstrating progression. Staff review their own knowledge and skills.



Laura Kelly

St Columbanus' College
Bangor, Northern Ireland

I have a number of roles outside of my classroom that help ensure I am up-to-date and playing an active part in a food teaching community whereby we share good practice, innovation and ideas. I was recently involved in the revalidation of the Consumer Studies degree at the University of Ulster. This was an excellent opportunity to ensure that our subject and recent developments were considered when reviewing course content. I am also an active member of the British Nutrition Foundation Northern Ireland Education Working Group, along with the CCEA Subject Advisory panel for Home Economics and Food & Nutrition. Both of which ensure I keep up-to-date.

An aspect of my job that I absolutely love is developing resources! I am the author and writer of a textbook and online resources, and the specification

writer for the Entry Level GCSE Home Economics and resource writer for GCSE Food and Nutrition. I actively seek opportunities to develop resources to ensure I keep my subject knowledge up-to-date.

LAURA'S TIPS

1. Be a reflective practitioner. Evaluate your current practice, what could you do to enhance the teaching and learning experiences for your learners?
2. Network with a wide range of people and be open to learning and sharing good practice.
3. Keep up-to-date with subject developments and share your passion and enthusiasm with future generations!

CASE STUDY

Putting the characteristic into practice

Staff plan effective lessons and activities for learners

- Set goals that stretch and challenge learners of all abilities.
- Plan well ahead to ensure that lessons run smoothly and all resources are readily available.
- Develop effective systems to ensure all learners can participate fully in lessons.
- Plan timings carefully, particularly for practical lessons.
- Get to know learners' likes, dislikes, interests and food culture.
- Acknowledge that food has social, cultural, religious and emotional attachments that must be addressed with young people when discussing their own eating habits.

Other examples:



Staff demonstrate good classroom organisation and time management, and exhibit and maintain the highest possible standards

- Set high standards and invite professionals and visitors to raise expectations amongst staff and learners.
- Act as a role model and dress appropriately when working in the practical food room. This should reflect the standards expected of learners; for example, hair and/or head covering.
- Set an example by demonstrating neat, methodical working practices in the practical environment.
- Develop effective systems that support learner independence.
- Select and implement an efficient ingredients management system.
- Utilise funding or other strategies to include all learners in the lesson (even those without ingredients).
- Demonstrate a high level of practical skill, know common mistakes in the recipes/skills taught and how to rectify them.
- Create a calm, caring, trusting and open environment for learning.

Other examples:



Staff are flexible and work with other staff and the wider community

- Plan flexibly to account for last minute changes.
- Lead and manage support staff effectively; for example, establish clear ways of communicating with technicians and learning support staff.
- Work collaboratively with teaching colleagues from other curriculum areas and school catering staff.
- Be part of the whole school food approach, the ethos should be reflected in the food and nutrition curriculum.

Other examples:



Putting the characteristic into practice

Staff share good practice and ideas that work well

- Share good practice both in own school and locally. For example, run a workshop, make a presentation, publish a blog or article, or share a teaching resource.
- Establish or take part in an existing subject network to share good practice and ideas that work well.

Other examples:



Staff keep up-to-date with the subject and effective pedagogy approaches

- Follow research into the latest educational developments.
- Demonstrate a critical understanding of developments in the subject.
- Show passion for the subject, including trying new food, exploring where food comes from, using different cooking techniques and highlighting healthy eating.

Other examples:



Staff make use of ICT and use a range of resources to stimulate learning

- Use ICT to develop independent learning. This could include revision apps, nutritional analysis, web searches and videos.
- Embed ICT into lessons to bring teaching to life, supporting differentiation.

Other examples:



Staff are impartial practitioners no matter their own preferences or beliefs

- Use up-to-date, evidence based, impartial resources and information to help plan and implement lessons.
- Include a wide range of learning experiences to encompass varied cultures, traditions, customs and practices so that learners have a wide range of opportunities.

Other examples:



Putting the characteristic into practice

Staff regularly audit, evaluate and review their own knowledge, skills and teaching practice

- Use systematic self-reflection to assess the effectiveness of lessons and the approach to teaching.
- Review skills and knowledge against guidelines for food teaching to help identify any areas that would benefit from further development.
- Encourage and use learner voice to improve and develop teaching and learning styles and practices.
- Shadow or work alongside more experienced practitioners within the school or establish links to other local schools.
- Engage in personal and professional development regularly.

Other examples:



Insights

- Be prepared to address topical issues to which learners relate. Create a 'Facts behind the headlines' display or presentation to stimulate discussion.
- Create an environment where learners are aware that all staff have high aspirations for them and offer encouragement through praise and constructive feedback.
- Establish clear guidelines and protocols when dealing with parents. Provide information in advance about lessons and ingredients; be prepared to deal with issues and be aware of school policy on charging/voluntary contributions. Access funds to support pupils in need of support.
- Organise the food room and/or lessons to facilitate a variety of learning opportunities to maximise learner progress.
- Raise the profile of food and nutrition across the school community. Make the subject visible to others; use displays to communicate the work that learners are engaged with in lessons. Participate in school assemblies, e.g. give a talk on eating and drinking well to maximise exam success. Invite the link governor to visit a lesson to see first-hand the value of the subject.



Going beyond

Become an examiner, moderator, teacher trainer or mentor to gain an insight to the process and assessment of examination courses. Share resources and ideas with other teachers (in accordance with regulations).

Undertake extra-curricular activities that engage the learners and help to raise the profile of food and nutrition in school.

Establish and host subject networking events in your locality/region and work with other subject specialists.

Offer placements for trainee teachers to work with you and develop subject expertise and teaching skills.

Section A

Taking a whole school approach

A characteristic of good practice in secondary schools is that the subject is aligned to a whole school food approach. Food and nutrition education is embedded in the health and wellbeing agenda of the whole school through the development and implementation of policies, promotion and enforcement.

Key features



The school is dedicated to providing an environment that promotes healthy eating and enables pupils to make informed food and drink choices. This is achieved by the whole school food policy, which sets out the food provision, curriculum and ethos.



Staff work collaboratively across the curriculum to enhance learning opportunities, secure consistency and coherence of key concepts, and healthy eating messages across all curriculum areas. Staff contribute to, and support the implementation of, the whole school food policy. Staff act as role models in relation to food and drink, in line with the policy, when in the company of learners.



Resources, equipment and ingredients used across the school promote healthy eating and active lifestyles. Staff work collaboratively across curriculum areas, support staff and food providers to ensure consistency.



Teaching is directed to motivate change in behaviour towards healthier lifestyles and choices. Schemes of Work and lessons reinforce the whole school food policy, seeking to make the policy a reality.



Regular monitoring and auditing of school food provision, after school activities, rewards, celebrations and curriculum delivery is in place for message consistency and consolidation.



Adele Louise

James

Whitefield School

London, England

We achieved the 'Healthy London Schools Gold Award' and were one of the first secondary schools in Barnet to achieve the status by promoting a healthy lifestyle through food, nutrition and physical activity. We also received Outstanding in "promoting the learner's personal development and welfare" in our most recent Ofsted report.

This is the result of staff working collaboratively on whole school issues, but also through taking a lead in our curriculum area – food and nutrition is taught throughout the year to learners, rather than being part of the Design and Technology carousel.

I also work alongside the Student Wellbeing Officer to develop and encourage physical activity as well as campaigns to promote sustainable, active and safe travel.

We have also increased the uptake of school lunch by 5%, by allowing Year 7 and 8 learners to go into lunch early, and organising themed lunches to celebrate national and cultural events.

ADELE'S TIPS

1. Organise primary school visits from local feeder schools to give children hands-on experience in food and nutrition lessons.
2. Run cooking clubs, and internal and external competitions to encourage more learners to cook at home.
3. Offer support sessions for those with Special Educational Needs and Disabilities to allow them to develop social and practical skills, and introduce unfamiliar food in a known environment.

CASE STUDY

Putting the characteristic into practice

Staff communicate the role of food and nutrition education as part of the wellbeing agenda so that other staff, parents and learners are clear about its purpose

- Make sure that food and nutrition education is represented in the school food policy. Write a clear statement that describes its principles and purpose, including learning intent.
- Work collaboratively with other subject colleagues to ensure that food and nutrition education is embedded in the whole school approach and learners receive consistent messages.
- Ensure that the school governing body (or equivalent) is aware of, and informed about, the whole school food policy.

Other examples:



Staff ensure that Schemes of Work and learning activities reinforce the whole school food policy in practice

- Use the Eatwell Guide to inform the planning and delivery of healthy eating messages across the curriculum.
- Reflect on the *core competences for children and young people aged 5 to 16 years* for progression mapping to ensure that learners build on their prior knowledge.

Other examples:



Staff work collaboratively to share expertise and enhance teaching about food and nutrition education throughout the curriculum

- Carry out a review across the curriculum to establish where, and when, food and nutrition education is taught.
- Collaborate with other staff to ensure that the whole school food policy is reflected across the curriculum and in extra-curricular activities.

Other examples:



Staff take an active role in supporting the development and implementation of the whole school food approach

- Work with senior leaders and school food providers to ensure that food and nutrition education is represented in the whole school food approach.
- Join the food policy steering group/committee and raise the profile through displays and assemblies.
- Engage with the wider school community; promote the approach

through newsletters to parents, have a presence on the school website or present at a school governing body meeting.

Other examples:



Putting the characteristic into practice

Staff engage with food issues throughout the school, helping to ensure consistency and continuity of message

- Support colleagues who may be less experienced, or without a specialism in food and nutrition.
- Use current healthy eating models consistently across the school.
- Involve the school lunch providers as part of the whole school food policy, for example, the Eatwell Guide is displayed in school lunch area.
- Share evidence-based resources and authoritative information, and teaching resources across the curriculum. Ensure resources are appropriate to the UK where necessary, e.g. use the Eatwell Guide rather than another food based model used in other countries.

Other examples:



Insights

- Create a display outlining the benefits of hydration for learners. Compare different types of drinks and the sugar content of popular drinks.
- Have a hydration station, promote the consumption of 6-8 glasses of fluid every day.
- Take the lead in ensuring that food and nutrition play an important role in a local Healthy Schools programme. The whole school food policy should be an integral part and be shared with the school community. Work with the school catering team to ensure consistency of message.
- Work with colleagues to plan and implement a Healthy Eating Day/ Week to raise the profile in school. Involve the school food caterers and external agencies to support the event.



Going beyond

Promote healthier eating activities, clubs and awards. For example, a Healthy Eating Week or 'Love your lunch' competition could be organised.

Support governors and senior leaders to establish a healthy eating ethos and provide a range of healthy food and drink choices throughout the school day in line with food standards.

Provide parents and carers with information and advice, to support healthy choices for their families.

Offer parent/carer and child practical classes to encourage healthy eating choices, development of practical skills and enjoyment of cooking.

Work with local feeder schools to support BNF Healthy Eating Week or curriculum activities.

Section B

Teaching the curriculum

A characteristic of good practice in secondary schools is that teaching should reflect the curriculum, with due regard to progression from prior learning. Where appropriate, the national Core competences for children and young people are referenced.

Key features



Staff develop Schemes of Work and lesson plans that build on prior learning and highlight key concepts, aims, objectives, differentiated learning outcomes and prior learning. Links with other areas of the curriculum are integrated into learning, such as mathematics, English and science.



Differentiation and progression (including extension) are built into planning and a range of pedagogical approaches are taken. Learning intent and 'what success looks like' criteria are shared with learners. The cost of equipment and ingredients is considered when planning Schemes of Work and lessons.



Teaching resources, equipment and ingredients are selected to support and engage all learners, helping to achieve planned learning intent.



Learners are enabled to apply and justify their knowledge and skills through planning, communication and, food preparation and investigation activities.



Teaching and learning is continually evaluated and revised as necessary, taking into account learner voice. Teaching approaches and plans are adapted to suit needs of learners. Assessment procedures reflect stated learning intent, demonstrate progression and provide constructive feedback to learners.



Liz Nicoll

Preston Lodge
High School
East Lothian,
Scotland

As a department we work closely in developing course content and resources. At the start of the year we consider what we will be teaching and each member of the department takes responsibility for managing specific courses.

Staff make changes and we discuss them at our fortnightly meeting. They also develop the resources, which are shared with all. This helps to reduce time and everyone is very open to discussion and recommended changes – helping to improve practice.

Time is set aside to consult with learners to establish their views. This is how we discovered they wanted to learn 'kettle skills' - something we hadn't even considered! This is a worthwhile exercise as every year we learn something new from their feedback.

We also work closely within our Local Authority Network and undertake local collegiate moderation training and cross

marking between the schools. This is a very valuable experience as making these decisions as an individual can be difficult.

LIZ'S TIPS

1. Make time to plan with colleagues and work collaboratively to reduce workload. If you are a department of one, create a local network of teachers to plan and share resources.
2. Listen to your learners! Ask what they enjoy and how tasks or topics they may not enjoy so much could be improved so learning intent is achieved.
3. Get involved in examination marking or moderating – it helps to improve your own teaching.



Putting the characteristic into practice

Staff plan for learner progress through Schemes of Work and lessons, with consideration given to learner capabilities, prior knowledge and differentiation

- Complete short, medium and long-term planning, review regularly and update as necessary. Ensure the curriculum is covered progressively.
- Establish what skills, knowledge and understanding learners should demonstrate based on the *Core competencies for young people* – plan learning, not outcomes.
- Ensure that Schemes of Work are not driven by recipes, but the underpinning knowledge and skills.
- Plan for progression. Learner's knowledge and application of healthy eating, cooking and where food comes from should be built upon throughout their food and nutrition education.
- Share the learning intent.
- Make sure that risk assessments are an integral part of your planning activities. They should be specific to the environment and learners.
- Take budget into account when planning Schemes of Work.

Other examples:



Staff comprehend the relevance of the curriculum in a variety of settings, such as other curriculum areas, everyday life and future career aspirations of learners

When planning and delivering food and nutrition education, ensure integration with, for example:

- STEM;
- numeracy and literacy;
- science;
- current news and events;
- personal health and wellbeing.

- Investigate and promote the range of career opportunities in the food industry. Invite professionals to speak to learners about their roles.

Other examples:



Putting the characteristic into practice

Staff engage in a variety of teaching and learning styles, activities and tasks

- Make effective use of ICT helping learners to utilise their knowledge and skills.
- Use a range of different activities that engage learners, make content relevant and allow progression. Include practical activities, nutritional analysis, sensory evaluation, group, individual and independent work and use of a variety of online media, e.g. videos, blogs, web searches.
- Make sure that staff, peer and self-assessment is relevant, regular and constructive.

Other examples:



Staff use suitable and engaging resources to achieve learning intent

- Plan and use resources that are up-to-date and based on accurate, reliable, evidence-based sources of information.
- Use resources that facilitate learning intent and meet the needs of learners.
- Ensure resources are challenging and extend learning where appropriate.

Other examples:



Staff plan food preparation and cooking activities that focus on progressive food skill acquisition, competency and techniques, not recipe outcomes

- Ensure practical work is focused on learning intent, not outcomes.
- Use activities that enable learning intent to be realised and develop a progressive range of food skills and cooking techniques.
- Ensure that recipes reflect the principles of the Eatwell Guide.

Other examples:



Putting the characteristic into practice

Staff organise a variety of practical activities, such as food preparation, food science investigations and sensory testing

- Plan a variety of practical activities to support the learning intent for Schemes of Work.
- Include a variety of approaches; one approach might be to investigate the properties of an ingredient and then prepare, cook and evaluate a dish using the ingredient.
- Discuss the functional characteristics of ingredients during practical activities, embedding knowledge from an early stage, e.g. enzymatic browning when making a fruit salad.
- Introduce the concept of fair testing. Sample a range of similar products and use sensory vocabulary cards.

Other examples:



Insights

- Invite ex-learners and/or a local food business to talk about their career path.
- Schemes of Work should be a living document and avoid focusing on content rather than pedagogy. Include guidance on approaches, interesting activities and resources that help nurture learners' understanding. The Schemes of Work should be the vehicle through which the vision, ethos and learning intentions are made clear.
- Work with colleagues to complete risk assessments. Use exemplar templates but always 'adopt and adapt' to make them relevant to the setting, activity and learners.
- Plan a variety of activities to create a dynamic and engaging curriculum. Avoid a repetitive theory/practical approach. Food science investigations can be a good introduction to an area of study.
- Provide information and guidance to learners about future opportunities for careers in the field. Challenge learners to think outside the box, for example: agriculture and food production, food science, technical and quality, product development/innovation, food hygiene, manufacturing and teaching careers.



Going beyond

Use senior learners/prefects in class to support learners, before and after school, to support the teacher (preparation of equipment, resources and lessons) and help to develop resources.

Develop links with other areas of the curriculum to enhance learner transferable skills, e.g. working with the mathematics department on numeracy and recipe costings.

Work with your local feeder schools; find out about the food work that is part of their curriculum to inform planning.

Invite a range of visitors/speakers from the wider food industry to offer an insight into the range of careers and opportunities open to learners.

Create an information and recipe area on the school website/intranet for ease of access for learners and parents.

Post up-to-date information and comment on 'in the news' topics on the school website/intranet to stimulate discussion and provide a trusted source of information.

Section B

Managing the subject

A characteristic of good practice in secondary schools is that the subject is well managed and resourced, teaching areas are maintained, and the environment stimulates learning and an excitement for the subject.

Key features



Staff demonstrate competence in delivering food and nutrition education, with robust Schemes of Work in place, well thought out room layouts for efficient and safe practical work, and up-to-date resources to support learners.



Staff manage the teaching environment to ensure that learners are able to successfully undertake the range of activities set. The room is well maintained, clean and tidy. Risk assessments and procedures are effective and enforced.



Resources, equipment and ingredients are available which support learning intent, learner number and capability, and recipe demand. Displays, posters and learner work act as learning resources in the classroom.



Learners follow established routines and procedures, ensuring time is more efficiently used on achieving the learning intent, e.g. getting ready to cook, where equipment is stored, recycling. There is clear communication of learning intent and learners understand the expectations.



The planning and delivery of the subject, as well as the practical work and teaching environment, is continually monitored for improvement. Learner voice is considered.



Heather Kettyle

Enniskillen Royal Grammar School

County Fermanagh,
Northern Ireland

A well organised practical lesson can be an enriching and rewarding experience for both learner and teacher. The main driver behind our success is organisation.

Good organisation is not a time consuming, burdensome task – it is an integral strand of the day-to-day running of the department.

Here's our key steps:

- Build a team.
- Meet and greet learners.
- Agree and display classroom routines.
- Store basic equipment in each learner unit.
- Store additional equipment in labelled cupboards around the room.
- Plan teaching resources meticulously.
- Ensure learner resources are attractive and engaging.
- Organise food practical resources on a trolley.
- Pre-weigh ingredients, especially if a more complex dish is being prepared.

- Consider and cater for allergies in advance of lessons.
- Interact with learners and act as facilitator.
- Manage time carefully, making use of on-line timers.
- Evaluate prepared dishes.
- Formally dismiss the class and employ an exit strategy.

HEATHER'S TIPS

1. Employ set routines at the beginning and end of the lesson and continually reinforce these until learners assume responsibility without being prompted.
2. Short, skilful spot demonstrations by the teacher will keep the learners on track and to time.
3. Label learners A and B to share tasks and complete them quickly and efficiently, e.g. A collects equipment and B collects ingredients.



Putting the characteristic into practice

Staff set a range of activities, based on well planned learning objectives

- Plan Schemes of Work and lessons that are based on learning intent.
- Be aware of, and build on, prior learning.

Ensure that learners understand expectations and the learning intent is defined, for example:

- all learners will use a knife safely to chop carrots;
- most learners will use a knife safely to cut carrots into dice;
- some learners will use a knife safely and precisely to cut carrots into fine dice.

- Use questioning effectively; for example, C3B4ME (see three others before asking me) or question cards.
- Make effective use of ICT, e.g. nutritional analysis to support and enhance planned learning activities.
- Use a range of teaching and learning styles and activities, e.g. demonstrations, presentations, food tasting, practical skill challenges.

Other examples:



Staff set-up routines and procedures to ensure hygiene, safety, time efficiency and desired learning intent

- Establish routines, set clear expectations and ensure all staff are consistent in applying these in every lesson.
- Define and establish roles and responsibilities, for teachers, teaching assistants, technicians, learners and other staff as appropriate.
- Establish guidelines and procedures for using tools and equipment. Ensure all staff are aware of, and apply, these procedures and access appropriate risk assessments.
- Establish a routine for learners to ensure that ingredients are stored safely and hygienically before use.
- Establish and maintain the process for storing completed dishes in school.
- Prepare equipment and/or ingredients in advance where appropriate to facilitate planned learning intent.
- Implement lesson plans effectively, using strategies to ensure learners achieve the learning intent, e.g. time reminders in practical lessons.

Plan to help learners achieve dishes that require more time than is available, for example:

- part prepare dishes, make pastry and freeze until the next lesson when it can be used to prepare a dish;
- prepare and assemble dishes which can then be completed/cooked at home where appropriate, e.g. lasagne or cottage pie;
- use pre-prepared ingredients such as sliced vegetables or ready-made pastry;
- learners work in pairs or groups to reduce time and ingredients used.

Other examples:



Putting the characteristic into practice

Staff plan effective and efficient food rooms

- Anticipate and understand the flow of the practical food room, e.g. fridge access, cookers, sinks, equipment, to create an effective, efficient workspace for learners.
- Plan the placement and storage of equipment carefully and ensure learners are familiar with procedures, e.g. depending on the room layout it may be better to have equipment centrally stored.
- Ensure there is sufficient, appropriate and hygienic storage space for ingredients and finished dishes.

Other examples:



Staff select appropriate equipment for learners, which is easily available and effectively managed during lessons

- Ensure that appropriate equipment is available to enable learners to achieve the learning intent identified in the Scheme of Work/lesson plan.
- Check the resources and equipment that are required by specific recipes, and are aware of demands that may be made on specialist equipment, e.g. are there enough woks for a complete group to use?
- Make sure that equipment is in good working order and is stored safely. Establish procedures that are used by all staff to monitor the safety and use of equipment.
- Anticipate when and where there may be a 'bottleneck' and work out a solution, e.g. learners may need to use liquidisers to blend soup, so a member of support staff could be tasked to do this for them. Alternatively a chunky soup could be made.
- Make sure the room is well labelled so that learners can work independently.
- Plan ahead to help practical lessons run smoothly, e.g. pre-cut greaseproof paper, have pre-printed labels with name, date, cooking/storage instructions.
- Make sure that ingredients, for general use, are topped up regularly, e.g. flour dredgers.

Other examples:



Staff create and use a well set-out, maintained and stimulating learning environment

- Provide a range of books, recipes, ICT resources and other stimulus materials to encourage learners to investigate and plan activities.
- Create displays that engage learners and provide a stimulating, bright environment.
- Use posters, learner's work and other resources to assist learners and stimulate discussion.
- Plan and create a sensory tasting kit which can be used by learners. Establish clear guidelines for hygiene standards when sampling food and drink.

Other examples:



Putting the characteristic into practice

Staff demand safe and hygienic working before, during and after practical cooking, investigation and sensory activities

- Establish procedures for checking equipment in/out, especially sharp equipment such as knives and processor blades.
- Establish and maintain rigorous standards of hygiene and safety (based on best practice) that are monitored and reviewed regularly.
- Complete effective risk assessments that are specific to the learners and the environment they are working in. Make sure all staff have access to the risk assessments and have a process in place to review and update as necessary.
- Make sure that all staff working in the practical food room understand the school first aid procedures and that these must be followed.
- Ensure that laundry is regularly washed and stored correctly.
- Make sure that routines are established with learners, e.g. 'clean as you go' procedures. These should also be demonstrated by staff.
- Establish cleaning schedules for the practical food room; these should be monitored and reviewed as necessary.
- Plan to ensure that food waste is minimised and recycled where possible.
- Recycle where possible and organise disposal of rubbish carefully.

Other examples:



Insights

- Organise the food room to make the best use of storage space and reduce the movements around the room during a practical activity. For example, store the equipment commonly used by the learners in each working area (section) rather than in a main store room.
- Build in time to check equipment and work areas before the end of the lesson.
- Decide where each learner will work at the beginning of term/rotation. Produce a plan to refer to when checking areas once learners have left if necessary.
- Colour code each working area and equipment to make checking easier.
- Prepare as much as possible in advance of the lesson: weigh and measure ingredients, if appropriate; pre-cut greaseproof paper; get out baking trays and additional equipment, such as electric whisks or flour dredgers; pre-print labels with cooking/heating instructions for finished dishes.
- Have clear and effective routines and risk assessments to ensure sharp



equipment can be monitored in use and storage. Storage blocks can be used for sharp knives; they provide a quick visual way of checking all knives have been returned and can be locked away for safe storage.

Going beyond

Use senior learners/prefects before and after school to support the teacher (preparation of equipment, resources and lessons).

Make composting and recycling facilities available and encourage use by staff and learners.

Develop information videos and/or reference cards to explain the use of more specialist equipment. Learners can access the videos/cards encouraging independent learning.

Create a suitable area and/or photo booth for photographing the learners work. Set up guidelines for use and how the images will be stored and made accessible to learners.

Section C

Good food hygiene and safety practices

A characteristic of good practice in secondary schools is that learners prepare and cook dishes, taste food and perform investigations hygienically and safely.

Key features



Staff demonstrate the application of good food hygiene and safety knowledge and understanding.



Food hygiene and safety is integrated into Schemes of Work and lessons. Staff are role models for good hygiene and safety. Systems and procedures are devised, implemented and monitored to prevent bacterial multiplication, food poisoning and allergic reactions.



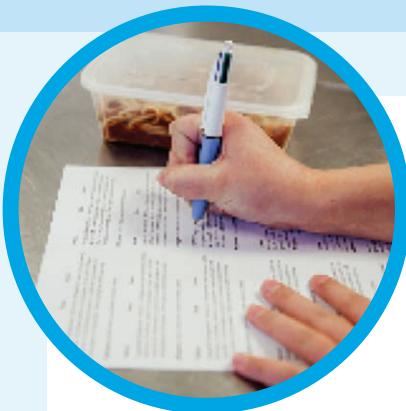
Teaching resources that embed the highest standards of food hygiene and safety are developed and/or selected. Equipment is in good working order and is stored hygienically and safely. Ingredients are purchased from a reputable supplier, are in date and are stored correctly.



Learners are enabled to apply and justify their knowledge of food hygiene and safety through planning, communication and food preparation and investigation activities.



Assessment procedures reflect stated learning objectives, demonstrate progression and provide constructive feedback to learners. Food hygiene and safety is integral when assessing practical activities.



Karen Ryder

St Cenydd
Community School
Caerphilly, Wales

As part of our food hygiene and safety procedures, we pre-print labels for dishes made by learners. This helps to manage the food stored in the department and provides information to learners about storage, reheating and allergens. Learners are told that food should be eaten within 48 hours from when it was made (24 hours for rice dishes) and we place any dishes not collected after this time period in the food waste bin.

The labels are made at the start of the year as part of our departmental planning process, so they are ready in advance of the lesson and are available for the learners to use. We have also created label templates that the learners can use for their own recipes.

Creating the labels does take time initially, but using them has made us more effective as a department as we know that we are demonstrating good practice and due diligence.

KAREN'S TIPS

1. When planning lessons, identify and include the information that would be needed on a label on your planning sheet. This will make it easier to complete the labels when the time comes.
2. Include allergenic ingredients on the label, where possible.
3. Always have spare blank labels to hand just in case you run out in the middle of a lesson!

CASE STUDY

Putting the characteristic into practice

Staff and learners adopt a regular routine for getting ready to cook

Establish a routine for learners to get ready to cook, modelled by all staff. Examples include:

- placing ingredients in the food room at the start of the day and storing in the correct place;
- removing blazers, and jumpers (if appropriate), on entering the food room;
- removing nail varnish and jewellery;
- keeping school bags away from the food area;
- tying up long hair, ensuring it is not hanging down;

- securing long head scarves or coverings;
- rolling up long sleeves;
- thoroughly washing and drying hands;
- putting on a clean apron.

Other examples:



Staff and learners implement robust food hygiene and safety procedures

- Establish cleaning schedules for the practical food room; these should be monitored and reviewed.
- Complete daily fridge temperature checks, record and monitor.
- Check date marks on ambient, chilled and frozen food. Label open bottles and jars in the fridge with an 'opened on date' to ensure good stock management.
- Ensure ingredients are stored correctly before and after use.
- Avoid washing raw meat to prevent cross-contamination.
- Use digital temperature probes to check the core temperature of food is at least 75°C (or 70°C for 2 minutes).
- Make sure that hot food is cooled quickly and stored below 5°C within 1-2 hours.
- Ensure that finished dishes are stored appropriately in the food room until the end of the day.
- Place any dishes not collected by learners in food waste bins, after 48 hours or 24 hours for rice dishes.

Other examples:



Staff and learners take measures to prevent cross-contamination of allergens and the risk of allergic reaction

- Establish procedures to ensure that learner and staff food allergies and intolerances are known, recorded and reviewed regularly.
- Store food containing allergenic ingredients separately.
- Make sure equipment is used, cleaned and stored separately to prevent cross-contamination of allergens.
- Make sure that staff and learners are aware of the main 14 allergenic ingredients in recipes, food for tasting and investigations.

Other examples:



Putting the characteristic into practice

Staff and learners role model exemplary practical skills and food safety and hygiene practices

- Demonstrate safe use and storage of electrical equipment, e.g. food processors or blenders.
- Use clean, tidy and effective procedures for practical activities, including demonstrations.
- Demonstrate the correct use of equipment for practical activities to prevent cross-contamination, e.g. red chopping board for raw meat.
- Use oven gloves when handling hot items or taking items in or out of the oven.

Other examples:



Staff and learners follow safe and hygienic procedures for tasting and testing

- Ensure that staff and learners are aware of allergenic ingredients in food provided for tasting activities or investigations.
- Establish clear guidelines for hygiene standards when sampling food and drink, e.g. no 'double dipping' or licking fingers.

Other examples:



Staff and learners engage in activities that allow theory to be applied

- Demonstrate how the use of time plans, flow charts and quality control charts can be used to apply theory to practical activities.
- Challenge learners to list food hygiene and health and safety risks during practical activities and/or on recipes.
- Set learners the task/challenge to be 'Food safety inspectors' during practical activities. Reverse the roles next lesson.
- Use recipes that demonstrate how bacteria is used in food production, e.g. yogurt or bread.

Other examples:



Insights

- Place a small pot of water in the fridge and use a digital thermometer to record the temperature of fridges each day. Taking the temperature of the water provides a more accurate reflection of the temperature of the food and drink in the fridge.
- Have a supply of hair bands, nail varnish remover/plastic gloves and spare aprons.
- If there is a 'bottleneck' at the hand wash station, divide the class in half. Task one half to wash their hands and the other to read through the recipe they are going to be making. The two halves should then swap activities.
- Use a rack to store clean plastic chopping boards to enable them to air dry fully and prevent mould and the multiplication of bacteria.



Going beyond

Visit another school to see practical lessons and activities in action.

Spend time with the catering team to learn about food hygiene and safety in a commercial environment.

Undertake a more advanced food hygiene and safety qualification. It is recommended that food and nutrition teachers hold an up-to-date Level 2 food safety and hygiene qualification. Why not study for a Level 3 or 4 qualification?

Raise awareness and provide information to senior leaders and/or parent teacher groups to gain funding to enhance food storage equipment such as blast chillers or cold rooms.

Create a 'dishes and their allergen content' board for use in the practical room. Use the board to identify the allergenic ingredients present in directed recipes made by learners. <https://bit.ly/2NSzu9S>

Plan and create short peer to peer instruction videos that can be used as part of a lesson or independently by learners.

Section C

Food skill competency

A characteristic of good practice in secondary schools is that learners can prepare, cook and serve a range of dishes with precision, hygienically and safely.

Key features



Staff demonstrate competency in a wide range of food skills and cooking methods, using a variety of ingredients and a range of equipment.



Food skills are integrated into Schemes of Work and lessons, demonstrating progression in the development of practical skills, precision/accuracy, use of equipment and recipe complexity over time. Staff are mindful of the cost and availability of ingredients when planning Schemes of Work and lessons.



Teaching resources, recipes, ingredients and equipment used are ability appropriate, encourage an awareness and understanding of safe practices, and promote current healthy eating advice.



Learners are enabled to apply, demonstrate and justify their competency through planning, communication and food preparation activities with precision, hygienically and safely.



Assessment procedures reflect stated learning intent, demonstrate progression and provide constructive feedback to learners. Safe, accurate and proficient food skills are integral when assessing practical activities.



Lloyd Henry

Ysgol Gyfun Gwyr

Swansea, Wales

Having come from a catering industry background I feel this has given me a slightly different outlook and has allowed me to transfer my practical skills from the kitchen to the classroom. If I could put it down to three things, it would be good knowledge, forward planning and careful timing. I am able to discuss, demonstrate, develop and utilise these skills competently within the classroom.

I set high standards and expect the same of my learners, and encourage them to express themselves through their practical work. We have a strong focus on practical skills and learners are actively encouraged to adapt and develop their own recipes. This gives them greater independence and engages them in the subject, whilst also enhancing their own knowledge and skill set.

Primarily, you need to know what you are doing, how you are going to do it, and in particular, show learners how important it is to do it correctly.

LLOYD'S TIPS

1. Self-review your skills, see what you can do, what you can't do and what you'd like to do. This could be factored in to your CPD and performance management targets.
2. Get reading, watching and researching about food, the learners will thrive from your enthusiasm and knowledge.
3. Trial recipes before using with the learners to evaluate what mistakes could be made and how these could be overcome.

CASE STUDY

Putting the characteristic into practice

Staff plan and implement robust Schemes of Work and lessons that progress food skill proficiency

- Review food skills previously taught to learners through formal education or social and family experiences;
- Map out food skills in Schemes of Work.
- Develop practical activities that are age/ability appropriate. Build upon previous experiences, skills learned and learner preferences.
- Focus on food skill learning intent, not recipe outcome.
- Ensure planning reflects the ethnic and cultural diversity of learners and local environment.

Other examples:



Staff select appropriate recipes and practical activities

Ensure recipes promote current healthy eating advice and are predominantly savoury.

The planned curriculum should:

- give learners skills for life and health;
- promote confidence;
- focus on food skill development and progression over time;
- be achieved successfully in the time available.

Other examples:



Staff consider the equipment, learning environment and time available when selecting recipes and practical activities

Question the selection of recipes and practical activities, for example:

- is new or specialist equipment needed, e.g. pasta machines, food processors, specialist knives?
- is there enough cooker space?
- is there enough storage space for ingredients or cooked dishes?
- can the dish be prepared and cooked in the time available?
- can part of the dish be prepared in advance and frozen?
- can pre-prepared ingredients be used, e.g. ready-made pastry, sliced or frozen vegetables?
- can learners work in pairs or groups?
- does a risk assessment need to be completed?

Other examples:



Putting the characteristic into practice

Staff are confident in teaching, demonstrating and using a wide range of food skills

- Encourage staff to practice food skills at home before teaching learners.
- Enable staff to develop their own food skills (if required) through CPD provided by external providers or working with more experienced food and nutrition teachers, the catering team or professional chefs.
- Expose learners to new experiences, ingredients and/or skills, e.g. through working with external experts.
- Encourage learners to support their peers in class.

Other examples:



Staff and learners are challenged to develop and extend food skills through practice, experiences and assessment

- Build in the opportunity for competition style activities that can be used to teach specialist knowledge/skills, e.g. food styling and presentation.
- Enable staff to develop their own food skills through undertaking practical skills courses and/or accreditation.
- Use a variety of assessment styles, including self, peer and teacher.
- Expose learners to different culinary traditions and ingredients.

Other examples:



Insights

- Work and plan effectively with technicians and support staff to ensure the smooth running of practical activities.
- Select appropriate recipes to develop the skills and knowledge that have been identified. Use tried and tested recipes and avoid learners selecting recipes from internet searches/magazines which may not have the desired learning intent.
- Encourage learners to work with ingredients that they are less familiar with. Showcase less well-known ingredients demonstrating how they are prepared and how they can be used in recipes. Invite a local chef or food expert to demonstrate these skills, if available.



Going beyond

Seek out upskilling courses and webinars to enhance professional development.

Offer learners the opportunity to go on a school visit or longer journey to experience using new ingredients and learn new skills.

Create links with local supermarkets and food producers. Provide opportunities for learners to visit the shop/producer or for visitors to come into school.

Invite a local chef to give a demonstration.

Look out for, and enter, national competitions and local events to showcase learners' work and raise the profile in school.

Run food skills enhancement sessions at lunchtime or after school to encourage learners, and staff, to further develop their food skills.

Section C

Food provenance know-how

A characteristic of good practice in secondary schools is that learners demonstrate their understanding of food provenance, production and processing. They examine where and how a variety of ingredients are grown, reared, caught and processed, and consider sustainability, food security and the impact on the environment.

Key features



Staff have a secure understanding of food provenance, are aware of the latest debates or challenges around food sustainability, and apply their knowledge in practice. Staff demonstrate their food provenance know-how through their planning and teaching, using up-to-date and relevant sources of information and case studies.



Provenance and sustainability are integrated into Schemes of Work and lessons, demonstrating progression in the development of key concepts and its application over time. Food origins, production and processing are embedded throughout all aspects of food and nutrition education.



Resources should reflect current UK farming and food production processes, and recognise a range of views exist about how food is produced. If other areas of global food production and/or processing are highlighted, the location should be clearly identified. Ingredients used should be seasonal and/or local, where possible.



Learners recognise where and how a variety of ingredients are grown, reared, caught and processed and can describe the basic steps in the production of food.



Assessment procedures reflect stated learning intent, demonstrate progression and provide constructive feedback to learners. Food origins, production and processing are integral when assessing practical activities.



Rosalie Forde

Three Ways School
Bath, England

Our food is sourced from links with community based projects, farms, supermarkets, suppliers and grown on site.

The learners, who have a range of Special Educational Needs and Disabilities, are actively involved in all aspects of food storage, food preparation and cooking. This has created a broad range of differentiated learning opportunities and exciting ways to understand where our food comes from, how to prepare, store and preserve ingredients and make the most of the food available to reduce waste. The raw peelings from lessons are even composted for use in our garden!

We have many growing and cooking projects embedded with STEM objectives, work experience and life skills. Examples of these are catching and cooking our own rainbow trout and selling our own organic veg box scheme. These provide learners with

real practical experiences and a breadth of knowledge about where their food comes from and the work involved to get it to their table.

ROSALIE'S TIPS

1. Waste nothing, utilise all parts of plants from seeds to saving lemon and orange skins for mixed peel.
2. Embed composting and growing into every lesson.
3. As the learners become more confident, encourage them to be more independent and make their own decisions. For example, ask them to harvest certain foods or herbs independently so they begin to know what each plant is and they can safely identify it growing in their community or in their garden at home.

CASE STUDY

Putting the characteristic into practice

Staff and learners explore how food is reared, grown and caught in the UK, Europe and worldwide

- Plan lessons and practical activities to investigate how food is reared, grown and caught and the role it plays in the diet.
- Research local farmers, growers or producers. Use food/ingredients produced locally to create a range of dishes.
- Investigate the food that is certified by the EU under the protected food name scheme, designed to recognise traditional and regional food.

Other examples:



Staff and learners research the 'farm to fork' chains for different foods from the UK

- Explore the concept of food provenance; select a food that can be followed from farm to fork.
- Look at the steps a food takes from farm to fork using a variety of resources, such as web searches, videos, blogs, media articles, magazines/books and written tasks.

Other examples:



Staff and learners investigate different quality assurance standards and/or marks for food

- Research what different quality assurance standards/marks stand for.
- Collect a variety of example logos that are used in food assurance schemes. Investigate which logos learners are familiar with and the role they play in consumer choice.

Other examples:



Staff and learners consider the seasonality of food

- Use seasonal ingredients in practical food preparation and cooking, including recipe selection.
- Incorporate the seasonality of food into lesson planning, including advantages of using food in season.
- Select recipes that use seasonal/local food.

Other examples:



Putting the characteristic into practice

Staff and learners discuss aspects of food security and sustainability through the context of supply and health

- Prepare a variety of images that will stimulate thinking and prompt discussion about food security and the impact on supply and health.
- Discuss what might be the causes of not getting a regular, sufficient and nutritious food supply, e.g. effect of climate/climate change, environmental damage, extreme weather, land availability, resources (water, energy), fertile soil, economic issues, crop failure.
- Carry out practical activities requiring learners to plan and cook a dish that can be produced more sustainably. This might include cooking methods, careful choice of ingredients, buying locally, use of left-overs, reducing packaging, reducing energy used or growing own fruit/vegetables.

Other examples:



Insights

- Establish links with local food producers and processors. Invite them to present and/or demonstrate their produce/products to learners and show how they can be used in planning and preparing healthy food.
- Compare a range of ingredients and their origins. Consider what can change the cost, quality, availability, sustainability – how do these affect consumer choice? Examples might include: free range/farmed eggs, sustainable/farmed fish, and local/imported meat.
- Set up a display or presentation that encourages learners to investigate foods from different cuisines and how they are used. Use a world map to show where ingredients come from. Plan some practical sessions that use a range of these ingredients.
- Produce a resource bank of farming information/case studies.



Going beyond

Offer growing activities to learners: this could be small scale such as an herb garden, using 'grow bags' for tomatoes or a deep bin for potatoes. If facilities allow, create a school garden or allotment and grow produce for use in the classroom.

Visit a farmer's market or invite a local producer into school to give learners the opportunity to see and use ingredients that they are less familiar with and to learn about their provenance.

Invite a speaker to talk to learners about specific food/produce, e.g. cheese, fish, 'deli foods' and how they are sourced/made.

Run an in-house competition for learners/staff/parents focusing on local, seasonal ingredients. Showcase the entries. Why not get the local press involved?

Work with the school catering team to have a focus on a particular cuisine. Organise tasting events to get learners trying different foods.

Section C

Nutrition proficiency

A characteristic of good practice in secondary schools is that learners apply their healthy eating and nutrition knowledge.

Key features



Staff demonstrate nutrition proficiency, keeping up-to-date with latest research, and apply their nutrition knowledge into practice.



Teaching resources that reflect current evidence-based nutrition are developed and/or selected. Equipment and ingredients used should promote current healthy eating advice.



Healthy eating and nutrition is integrated into Schemes of Work and lessons, demonstrating progression in the development of key concepts and its application over time. Healthy eating and nutrition are embedded throughout all aspects of food learning.



Learners are enabled to apply and justify their knowledge of healthy eating and nutrition theory through planning, communication and food preparation activities.



Assessment procedures reflect stated learning objectives, demonstrate progression and provide constructive feedback to learners. Healthy eating and nutrition is integral when assessing practical activities.



David Robertson

Dalkeith High School
Midlothian, Scotland

To ensure that our learners taking qualifications at age 16 are well prepared, we've focused on nutrition knowledge and application progression from age 11 up – through three key steps.

We start with the Eatwell Guide and healthy eating recommendations, ensuring that learners can apply what we teach – this can be as simple as recording their own diet on a blank Eatwell Guide, to reviewing real menus!

Next we focus on energy and nutrients, looking at main sources and functions. DRVs are introduced and nutritional analysis is undertaken to explore what's provided by different recipes, portions, menus and meal occasions.

Lastly, dietary needs, special diets and health issues are discussed – learners need to not only investigate the facts, but demonstrate their understanding through menu creation and selection. Our approach builds on prior learning, gives learners a voice and involves a range of teaching and learning styles.

DAVID'S TIPS

1. Don't have stand-alone healthy eating or nutrition lessons, embed throughout!
2. Differentiation is easy using a blank Eatwell Guide, for some it's about recording what they consumed using food cards, for others they can create a day's menu for considering healthy eating guidelines.
3. Use Explore Food – it's free, gets the learners the results they need and creates labels. There's a good range of worksheets to help too.



Putting the characteristic into practice

Staff and learners use the Eatwell Guide, and current dietary recommendations, to plan healthy, varied diets

- Use the Eatwell Guide as the cornerstone of healthy eating.
- Ensure that the main recommendations act as a thread throughout all work, including 5 A DAY, reducing salt, free sugars and saturated fat, increasing fibre and having 2 portions of fish per week.
- Ensure that the message of 6-8 drinks to be consumed per day is used.
- Include portion size and energy balance in the planning and delivery of healthy eating lessons.

Other examples:



Staff and learners keep up-to-date on latest nutrition research and changes to recommendations from government

- Use reliable, evidence-based sources of information about nutrition and healthy eating.
- Look for the Information Standard logo which signifies that the resources are good quality and evidence based (England).
- Plan and apply a consistent whole school approach to healthy eating and nutrition information. Share up to date information with colleagues.

Other examples:



Staff and learners apply their knowledge of energy and nutrients (source, function and amount)

- Plan and make meals for people with different dietary needs.
- Investigate sources of different nutrients, highlighting their functions.
- Other examples:



Staff and learners apply their understanding of nutritional needs, including different diets, to plan dishes and menus

- Apply the principles from the Eatwell Guide; use the guidelines when planning dishes and menus.
- Consider the needs of different population groups, including any dietary restrictions, when planning lessons, dishes and menus.
- Discuss with learners the population groups that might be included. Plan and prepare suitable dishes for a selected group.
- Other examples:



Putting the characteristic into practice

Staff and learners undertake dietary and nutritional analysis to justify decisions and changes

- Analyse a diet for a day, investigating whether it meets healthy eating recommendations, e.g. 5 A DAY, base meals on starchy foods, 6-8 drinks.
- Undertake nutritional analysis on recipes and diets to calculate the amount of energy and nutrients provided per portion and per 100g.

Other examples:



Staff and learners use front and back-of-pack food labels to make informed decisions

- Use a selection of packaging to practice label reading.
- Use labels for similar dishes, such as sandwiches or pizzas, to exemplify how to make decisions based on specific criteria, e.g. choosing the lower salt option.
- Review nutrition information panels and ingredient lists and show how they can be used to help inform decision making.

Other examples:



Insights

- Work with colleagues in other curriculum areas to ensure that learners receive consistent, up to date information about nutrition and healthy eating. Learning should be cross referenced across areas to demonstrate progression.
- Ensure information sources are reliable and evidence-based. Develop teaching resources based upon this information and share with colleagues in other curriculum areas.
- Investigate the 'facts behind the headlines' as these may provide clearer information, e.g. 'Nutrition in the news' on www.nutrition.org.uk or 'Behind the headlines NHS' on www.nhs.uk.
- Plan a series of practical activities that illustrate the use of a variety of ingredients from the four main food groups of the Eatwell Guide. Select recipes that reflect healthy eating guidelines. Task learners to complete a nutritional analysis for each dish and suggest improvements with justification.



Going beyond

Develop menus with the school caterer to help to ensure a consistent message across the school.

Register for and participate in BNF Healthy Eating Week. Make sure the whole school community are aware of the event and how they can be involved.

Organise a display and tasting session at open evening/parents events to raise awareness of the healthy eating model which is being taught in school.

Liaise with PE to have a display, tasting or hydration station at a sporting fixture or event. Invite ex-learners that have gone on to pursue further studies in sport to talk about the importance of a healthy diet and hydration.

Undertake online or face-to-face accredited training on nutrition and healthy eating.

Section C

Consumer awareness

A characteristic of good practice in secondary schools is that learners demonstrate and apply their awareness of consumer preferences and the reasons for choices made.

Key features



Staff are aware of a number of consumer issues in relation to food and drink, highlighting factors that affect selection and choice.



Teaching resources are developed and ingredients sourced that support learners to make informed choices, exploring a range of factors.



Consumer awareness is integrated into Schemes of Work and lessons, demonstrating progression in the development of key concepts and its application over time. Factors affecting food choice are considered and applied when making decisions for themselves and others.



Learners are enabled to apply and justify their knowledge of consumer preference and choice through planning, communication and food preparation activities.



Assessment procedures reflect stated learning intent, demonstrate progression and provide constructive feedback to learners. Consumer awareness is integral when assessing the decisions learners make.



Jan Reynolds

Hornbeam Academy
– William Morris
Campus
London, England

Our learners have a range of Special Educational Needs and Disabilities, and are given the opportunity to choose a dish for a meal. They research the ingredients online, looking at cost and allergens – and we also consider gluten and halal products. They evaluate the salt, sugar, fat and energy provided. Some learners need visual support or support from an adult to make their selection. This type of work builds confidence and gives real-life skills for the future.

As part of the cooking experience, learners are taken to the local supermarket and will either have a written or visual shopping list to assist them selecting the ingredients they need. Whilst they are shopping, they are encouraged to look at the labels and will discuss with staff the nutrition information and pay at the till independently.

Once back at school, learners make the dish, discuss the ingredients used and carry out self and peer-assessment. It's a rich learning experience and thoroughly enjoyed by all.

JAN'S TIPS

1. Encourage learners to consider where their food comes from. Discuss how and where locally grown and produced food can be sourced.
2. Take learners shopping, or to a farmer's market if possible. Task them to find and buy a particular ingredient for a recipe or activity.
3. Build tasting activities into lessons so that learners can experience a wide range of food. Remember that some learners may not enjoy this type of activity though.

CASE STUDY

Putting the characteristic into practice

Staff and learners recognise the wide range of factors involved in food and drink choice

Plan and undertake activities that demonstrate an understanding of the factors that affect food choice.

These include:

- advertising;
- allergy/intolerance;
- availability;
- body image;
- cooking equipment/facilities;
- cost;
- ethical belief;

- food provenance;
- food skills;
- need;
- packaging;
- peer pressure;
- preference;
- religion;
- season.

Other examples:



Staff and learners apply the factors involved in food and drink choice when making decisions for themselves and others

- Demonstrate how to adapt recipes to meet individual needs and preferences.
- Carry out nutritional analysis to improve the nutritional profile of dishes/menus.
- Consider the cost and availability of ingredients when planning practical activities and dishes.
- Consider local issues, religious, cultural, socio-economic and ethical beliefs when planning activities and dishes.

Other examples:



Staff and learners demonstrate how to make informed choices to achieve a healthy, varied and balanced diet

Demonstrate how informed choices can be made through using:

- food labels;
- ingredient lists;
- nutrition information;
- health claims.

- Modify a recipe to reduce fat, sugar or salt, or increase fibre.

Other examples:



Staff and learners explore a range of ingredients and processes from different culinary traditions

- Research and experience ingredients, recipes and culinary traditions from around the world.
- Trial different cooking methods and presentation styles that reflect different culinary traditions.

Other examples:



Putting the characteristic into practice

Staff and learners understand, demonstrate and apply how sensory perception guides the choices that people make

- Use a variety of sensory tests to evaluate food and drink.
- Explain and apply how to ensure sensory tests are fair.
- Ensure the procedures for sensory evaluation are safe and hygienic, being aware of food allergies and intolerances and prevention of cross-contamination.
- Use the results of sensory testing to modify recipes/dishes and justify decisions and changes made.

Other examples:



Insights

- Work with parents/carers or members of the local community to offer a variety of cultural experiences to staff and learners, e.g. tasting sessions, talks or cooking activities, using local or traditional ingredients/techniques.
- Plan a series of lessons around eating to a budget, using leftovers or 'store-cupboard meals'.
- Plan practical activities that compare and contrast the selection, cost and nutritional value of dishes, e.g. compare the cost of a ready-made 'value' frozen lasagne, a ready-made chilled 'premium range' lasagne and a home-made recipe. Undertake nutritional analysis to compare the nutritional value of the homemade recipe with the purchased products.
- Plan a series of lessons that investigate how the cost of meals can be reduced through careful planning, choice of ingredients and cooking. These could include:
 - using local, seasonal produce;
 - using cheaper cuts of meat;
 - batch cooking;
 - using 'leftover' food to make a dish, e.g. fish cakes.

- Develop a topic that investigates how culture and food choice are linked. Create a range of dishes that illustrate how special occasions are often linked to food.
- Using a number of real menus from high street food outlets, challenge learners to choose a meal and justify their choice. Repeat the activity but this time ask learners to choose a meal based on a specific need, e.g. within a price limit or for someone that doesn't eat a particular food such as wheat, dairy or meat. Is the meal choice the same as before? Ask learners to explain why/why not.

Going beyond

Set up a sensory testing area and kit to give the learners a specific controlled place to carry out their testing.

Ask a member of the school community with specific needs to be a case study for learners. For example, a colleague who has diabetes or a parent with coeliac disease could be asked to give a short talk (or be recorded) to learners about their food needs. Learners are then challenged to plan/make suitable dishes which could be tasted by the person and feedback given.



Section C

Food science aptitude

A characteristic of good practice in secondary schools is that learners can apply their knowledge and understanding of food science in a practical and meaningful way.

Key features



Staff show an aptitude to the understanding and application of food science in food and nutrition education, making the science of food relevant to learners.



Food science is integrated into Schemes of Work and lessons, demonstrating progression in learner's knowledge, understanding and application of functional properties of ingredients, including sensory evaluation.



Teaching resources, equipment and ingredients that are ability appropriate, encourage an awareness and understanding of safe practices, and enable application, evaluation and justification are developed and/or selected. Specialist equipment is provided where necessary to ensure learning intent is achievable.



Learners are enabled to apply and justify their aptitude through planning, communication and regular food science and sensory evaluation activities.



Assessment procedures reflect stated learning intent, demonstrate progression and provide constructive feedback to learners. Safe, accurate, justified, and evaluated food science skills and knowledge are integral when assessing food science activities.



Jenine Turner

Chiltern Hills
Academy

Buckinghamshire,
England

One of the best aspects of our subject is being able to visually demonstrate and apply theoretical knowledge in a practical manner.

It is sometimes difficult for learners to visualise exactly what is happening in a process, therefore, isolating the individual reactions makes learning more accessible.

To explain yeast action in bread and baking, I use the 'bottle and balloon' investigation with supporting worksheets and investigation cards. This investigation works well with learners aged 11-14 as it can be completed in shorter periods of time and can also be broken down into sections, where focus can be placed on factors affecting growth, preservation of food and the types of yeast.

The investigations follow a simplified scientific format that will eventually be their building blocks for 14-16 courses.

At this point, the investigations can go into more detail and more complex processes can be demonstrated, such as the formation of egg white foams and the factors that affect their stability.

JENINE'S TIPS

1. Decide on the process/reaction you would like to emphasise and the learning objective – then plan the appropriate activity.
2. Change only one factor in each investigation. Keep it simple to start and build complexity over time.
3. "PPPA". Plan – teacher guide and resources. Practice – have a trial run. Prepare – have all worksheets, equipment and ingredients set up before the lesson. Adapt – modify or make changes if needed.

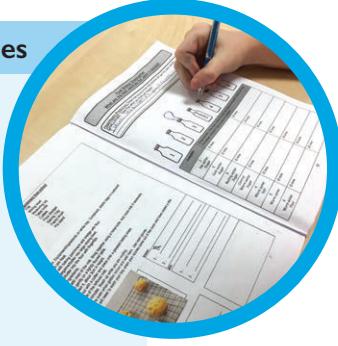
CASE STUDY

Putting the characteristic into practice

Staff embed food science into Schemes of Work, lessons and practical activities

- Find out about learner's food science knowledge gained from previous educational experiences.
- Build upon previous experiences and skills learned.
- Review current Schemes of Work, lessons and activities for food science content.
- Develop food science investigations that are age/ability appropriate.
- During cooking, highlight food science in action and encourage observation skills.
- Collaborate with cross-curricular colleagues to ensure consistency of message and progression.

Other examples:



Staff select appropriate scientific investigations and sensory evaluation activities

- Discuss the functions of ingredients during practical demonstrations.
- Challenge and question the learners about the functionality of ingredients – how, why, what?
- Use accurate food science terms to explain what is taking place, e.g. coagulate rather than thicken/set.
- Use resources and materials to support investigations, e.g. spreadsheets to produce sensory evaluation charts.
- Trial food investigations before learners, learn the pit falls and understand the methodology.
- Ensure that learners understand the importance of fair testing when investigating.

Other examples:



Staff know what makes effective food science investigations work

- Establish a methodology for planning and completing food science investigations, starting with a prediction/hypothesis.
- Provide samples; explain how to collect data/what is required;
- Provide examples of previous learner investigations (or a staff trial).
- Be realistic – the type of investigation/ number of variables will depend on the individual learner.
- Other examples:



Putting the characteristic into practice

Staff and learners take measures to prevent cross-contamination of allergens and the risk of allergic reaction when conducting investigations and sensory evaluation

- Ensure that staff and learners are aware of the main 14 allergenic ingredients in food used for tasting.
- Use separate equipment for preparation and testing to prevent cross-contamination.

Other examples:



Staff and learners research, evaluate, justify and make conclusions using food science investigations and practical activities

Investigations could include:

- why food is cooked;
- how heat is transferred – conduction, convection, radiation;
- gelatinisation, dextrinisation and caramelisation of carbohydrates;
- shortening, aeration, plasticity and emulsification of fats;
- denaturation of protein (physical, heat and acid), foam formation, coagulation and gluten formation;
- enzymic browning and oxidisation of fruit and vegetables;
- chemical, physical and biological raising agents;
- positive use of micro-organisms, fermentation;
- common mistakes and remedies.

Other examples:



Insights

- Use practical food activities to explain more complex food science:
 - make bread or yogurt to demonstrate the use of bacteria in food production;
 - make a simple curd cheese to demonstrate denaturation using acid;
 - touch raw and then cooked meat to show the effect of heat;
 - make scrambled egg to show denaturation and highlight syneresis;
 - whisk egg whites to produce a foam and cook to show coagulation;
 - make a simple white sauce to show gelatinisation;
 - marinade meat or fish to show the effect of enzymes on texture.
- Devise investigations that cover food science with little cost in consumable resources:
 - use basic ingredients, e.g. fat, flour, eggs;
 - keep cooking time short;
 - limit the range of variables to start with (3-4 maximum);
 - work in pairs;
 - keep report writing controlled – explain what you did, what you found and the science behind it.
- Use skills developed through science and mathematics when conducting food science investigations. Develop staff and learner knowledge through working with cross-curricular colleagues. Remind learners that skills and knowledge required for food science investigations are not new to them.
- Plan a progressive programme for sensory evaluation. This should enable learners to undertake fair testing,



develop sensory descriptors and know how sensory methods can be used to evaluate food products.

- Establish procedures for setting up and carrying out a sensory evaluation effectively and hygienically.
- Use command words such as *assess, compare, describe, discuss, explain or justify* in free response questions. Plan to include command words in investigations or other activities to familiarise learners with what command words are asking them to do and how to respond. For example, *compare* asks learners to write about the differences and similarities between two different things and then to draw a conclusion.

Going beyond

Plan a ‘fun food science’ session for open days/events for feeder primary schools. Look at the science behind the recipe or do some exciting practical investigations.

Offer the opportunity for learners to participate in activities/challenges run by external agencies/groups, e.g. STEM ambassadors, Practical Action or CREST awards.

Set up a food science quiz event for learners/parents/school community. Practical and fun learning about the science of food and what happens when food is prepared, cooked and eaten.

Run food science enhancement sessions at lunchtime or after school to encourage learners, and staff, to further develop their food science aptitude.

Expose staff and learners to new experiences using external experts and trips to science fairs.

Further sources of information and support

Section A

[Becoming an accomplished food and nutrition teacher - reflection, review and planning tools](#)

[Better eating, better learning: a new context for school food \(Scotland\)](#)

[Education Scotland \(Inspections\)](#)

[Establishing a whole school food policy \(Northern Ireland\)](#)

[Estyn](#)

[Food – a fact of life: whole school approach](#)

[Food for life – transforming food culture](#)

[Food teaching in secondary schools: a framework of knowledge and skills \(2015\)](#)

[General Teaching Council for Northern Ireland](#)

[Healthy Eating in Schools \(Wales\)](#)

[Healthy Schools Scotland](#)

[Office for Standards in Education](#)

[School food – nutrition standards \(Northern Ireland\)](#)

[School food standards review \(Scotland\)](#)

[School food standards: resources for schools](#)

[Standards for school food in England](#)

[Teachers' standards \(England\)](#)

[Teacher professional development Wales \(Professional Standards\)](#)

[The Education and Training Inspectorate](#)

[The General Teaching Council for Scotland](#)

[Wellbeing in schools \(Scotland\)](#)

[Welsh Network of Healthy School Schemes](#)

Section B

[CLEAPSS Design and Technology](#)

[Council for the Curriculum, Examinations and Assessment \(Northern Ireland\)](#)

[Curriculum for Excellence \(Scotland\)](#)

[Curriculum for Wales](#)

[Design and Technology Progression Framework \(England\)](#)

[Food teaching progression chart 5-11 years \(UK\)](#)

[Guidelines for producing education resources for schools about food](#)

[National curriculum \(England\)](#)

[Scottish Schools Education Research Centre](#)

[The Springboard Charity](#)

Section C

[Agriculture and Horticulture Development Board](#)

[Allergy UK](#)

[BBC Bitesize \(Home Economics: Food and Nutrition CCEA\)](#)

[BNF Healthy Eating Week](#)

[British Dietetic Association Food facts](#)

[British Heart Foundation](#)

[British Nutrition Foundation](#)

[Chilled Education](#)

[Crest awards](#)

[Department for Environment, Food and Rural Affairs](#)

[Explore food \(nutritional analysis\)](#)

[Food - a fact of life](#)

[Food certification and assurance schemes](#)

[Food Standards Agency \(England, Northern Ireland and Wales\)](#)

[Food Standards Scotland](#)

[Food Teachers Centre](#)

[Food4life](#)

[Growing for the future](#)

[Ingredient prices/recipe costing](#)

[Institute of Food Science and Technology](#)

[Institute of Grocery Distributors \(IGD\): nutrition information on packaging](#)

[Love food hate waste](#)

[Love food hate waste Scotland](#)

[Love food hate waste Wales](#)

[NHS healthy eating advice](#)

[Practical Action](#)

[STEM Learning](#)

[Tasty Careers](#)

[The Chartered Institute of Environmental Health](#)

[The Chartered Institute of Environmental Health Northern Ireland](#)

[The Chartered Institute of Environmental Health Scotland](#)

[The Chartered Institute of Environmental Health Wales](#)

[The Countryside Classroom](#)

[The Eatwell Guide](#)

[The Royal Environmental Health Institute of Scotland](#)

[The Royal Highland Education Trust](#)

[The Royal Society for the Prevention of Accidents](#)

[UK government food labelling and packaging advice](#)



Acknowledgements

The British Nutrition Foundation would like to gratefully acknowledge the financial support provided by the All Saints Educational Trust for the production of this guide.

BNF would also like to acknowledge the contribution of the Food Teachers Centre.

The content of the guide was developed through consensus workshops with:

Adele Louise James, Whitefield School, England

Alison Stafford, Healthy Schools London

Brian Oppenheim, Office for Standards in Education, Children's Services and Skills

Diane McCrea, All Saints Educational Trust

Dorothee Wagner, Council for the Curriculum, Examinations & Assessment

Elizabeth Tydeman, Public Health England

Frances Meek, British Nutrition Foundation

Heather Kettye, Royal Enniskillen Grammar School, Northern Ireland

Jenny Elms, Consultant

Kate Hufton, Hornbeam Academy Trust, England

Liz Nicoll, Preston Lodge School, Scotland

Lloyd Henry, Ysgol Gyfun Gwyr, Wales

Louise Davies, Food Teachers Centre

Lucy Bolsover, Sheffield Hallam University

Roy Ballam, British Nutrition Foundation

Sue Wood-Griffiths, University of Worcester

We would also like to thank the following for providing photographs and case studies to demonstrate the characteristics of good practice:

Adele Louise James, Whitefield School, England

Annette French, Valley Park School, England

Barbara Monks, The Cookery Teacher

Brindon Addy, J Brindon Addy Butchers, England

David Robertson, Dalkeith High School, Scotland

Emma-Jane Sinclair, Brookfield School, England

Food Teachers Centre

Heather Kettye, Enniskillen Royal Grammar School, Northern Ireland

Jan Reynolds, Hornbeam Academy - William Morris Campus, England

Jenine Turner, Chiltern Hills Academy, England

Karen Ryder, St Cenydd Community School, Wales

Laura Kelly, St Columbanus' College, Northern Ireland

Liz Nicoll, Preston Lodge High School, Scotland

Lloyd Henry, Ysgol Gyfun Gwyr, Wales

Loretta Geisal, Holmfirth High School, England

Nikki Billingham, Invicta Grammar School, England

Rosalie Forde, Three Ways School, England

Toni Munday, Cornwallis Academy, England

**Published by the
British Nutrition Foundation**
New Derwent House
69-73 Theobalds Road
London
WC1X 8TA

Telephone +44 (0) 20 7557 7930
Email postbox@nutrition.org.uk

www.nutrition.org.uk
www.foodafactoflife.org.uk
www.nutrition.training