

Purpose and aims

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Pupils should be taught to:

- understand and apply the principles of nutrition and health
- cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet
- become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes]
- understand the source, seasonality and characteristics of a broad range of ingredients

Threshold concepts

The Design Process

- Analyse - Research purposefully: Using a range of sources showing selectivity and analytical skill.
- Design - Visual Communication: Demonstrate innovation and creativity in recipe design and cooking
- Make - Safe Working Practice: Select and use equipment safely and accurately in order to prepare and cook a range of dishes demonstrate a range of skills.
- Evaluate - Critical Reflection: Demonstrate the ability to reflect critically throughout the design process showing an understanding for modification and improvement of dishes and recipes to meet nutritional needs.
- Technical Knowledge - Practical methods of cookery and preparation techniques from Yr 7 dishes.
- Mathematical knowledge – weighing and measuring during practical lessons.
- Impact on Society: Understand developments in food and nutrition, their ecological and social footprint with an awareness of the impact on society.
- ACCEESSFMM

Subject knowledge

<i>Subject Knowledge</i>	<i>Procedural Knowledge</i>
Design is a process that is cyclical/iterative	<p><i>Identify attributes and characteristics of different job roles.</i></p> <p><i>Explain how the design process is linked to the DP.</i></p>
Careers/Employment in the industry are explicitly linked to all or some aspects of the design process.	
Different careers focus on key areas of the design process and require different skill sets.	
Term 1: Costume Designers - Film Term 2: Food Nutritionist Term 3: Electrician	
The order of the design process	

<p>What the acronym ACCEESSFMM stands for.</p> <p>A – Aesthetics - The appearance of a product</p> <p>C – Cost - The money paid to cover materials, equipment, labour, buildings and services so a product can be manufactured</p> <p>C – Customer - A single person or a target market group that a product or service is aimed at.</p> <p>E – Environment - The positive or negative impact a product may have on the environment. Including the materials and energy used for manufacturing.</p> <p>E – Ergonomics - the process of designing or arranging workplaces, products and systems so that they fit the people who use them. Body measurement data is used. (Anthropometrics)</p> <p>S – Safety - How safe a product is to manufacture and use</p> <p>S – Size - The physical dimension and measurement of a product and how appropriate it is for the user.</p> <p>F – Function - What a product does and how it works</p> <p>M – Manufacture - Techniques and processes used to manufacture/make a product.</p> <p>M – Materials - A resource used to manufacture a product.</p>	<p><i>Describe the use of ACCEESSFMM in relation to products and services.</i></p>
<p>Threshold concept – recap Eatwell Guide</p> <ul style="list-style-type: none"> • Sections of the Eatwell Guide • Identify meal ingredients and which section they are from • Suggest healthier alternatives based on Eatwell Guide • Explain nutrients effect on body/health. 	<p><i>Recall all sections of the eat well guide by name, identifying examples within each.</i></p>
<p>Nutritional needs for different groups of people</p> <p>Nutritional needs vary depending on: Gender, age, PAL, health conditions, body size, the environment.</p> <p>Customer =</p> <p>People are classified into target market groups, to make meal planning and nutritional intake easier.</p> <p>These are:</p> <p>Babies Children Teenagers Adults Pregnant and lactating women Older adults.</p> <p>Special dietary and energy needs of each target market group.</p> <p>Which nutrients should the target market group have more of. I.e. Babies – food rich in iron and vitamin C, especially from 6 months.</p> <p>Breast milk contains all the nutrients and protection needed for babies, but formula milk is also available.</p> <p>After 6 months foods such as fruits, vegetables, infant cereals, eggs and finely chopped fish, beans and meat are introduced into the diet.</p> <p>The important nutrients can be found in these foods:</p> <p>Proteins – beans pulses, fish, eggs, lean meat. Calcium – yoghurt, cheese, milk, tofu.</p> <p>Iron: Dark green vegetables, beans, fish, egg yolk, red meat.</p>	<p><i>Identify target market groups.</i></p> <p><i>Discuss the different needs of 2 target market groups</i></p> <p><i>Identify specific macro and micronutrients needed for different target market groups.</i></p> <p><i>Explain the consequences of not meeting the nutritional needs.</i></p> <p><i>Plan lunch ideas/menu for different target markets to meet their needs. '</i></p>

<p>B group vitamins: bread, fish, broccoli, liver, milk, peas, rice. Folic Acid: broccoli, spinach, chickpeas, peas. Vitamin C: oranges, blackcurrants, broccoli, red and green peppers. Vitamin D: butter, eggs, milk, oily fish. Fibre; fruits and vegetables, cereals. Sodium (salt) – cheese, ready meals, salted nuts, bacon.</p>	
<p>Nutritional Analysis</p> <p>Nutritional analysis allows you to find out what nutrients are in a food, or different recipes/dishes.</p> <p>It aims to allow consumers to consider if the food is suitable for the target market group.</p> <p>Nutritional tables can be found on food packaging. They must be displayed by law.</p> <p>Food tables and computer software can be used to identify the nutritional value of particular foods and recipes.</p>	<p><i>Use food tables to calculator the nutritional content of food.</i></p> <p><i>Use nutritional tables to make conscious choices about food they eat.</i></p> <p><i>distinguish between the two columns in a nutritional table. Per serving / per 100g.</i></p> <p><i>Use computer software to complete a nutritional analysis comparison. .</i></p>
<p>Food Labelling – what’s on a label?</p> <p>Food labelling helps us:</p> <ul style="list-style-type: none"> - decide which food to buy - store and cook food correctly - be aware of the nutritional content of food. <p>Some information of food packaging is required by law – it is mandatory.</p> <p>https://www.food.gov.uk/business-guidance/packaging-and-labelling - check for updates.</p> <p>The following information must appear by law on food labels and packaging:</p> <p>Name of the food The name of the food must be clearly stated on the packaging and not be misleading.</p> <p>If the food has been processed in some way, the process must be included in the title, for example ‘smoked bacon’, ‘salted peanuts’ or ‘dried fruit’.</p> <p>A processed food is any food that has been altered in some way during preparation.</p> <p>List of ingredients If your food or drink product has two or more ingredients (including water and additives), you must list them all. Ingredients must be listed in order of weight, with the main ingredient first according to the amounts that were used to make the food.</p> <p>Allergen information Food products that contain any of the 14 allergens as an ingredient must be listed. You must highlight allergens on the label using a different font, style or background colour.</p> <p>This enables consumers to understand more about the ingredients in pre-packed foods and are helpful for people with food allergies and intolerances who need to avoid certain foods.</p>	<p><i>List reasons why it is important to label food.</i></p> <p><i>Define the term mandatory.</i></p> <p><i>Differentiate between mandatory labelling and non mandatory information on food labels.</i></p> <p><i>Explain how the ingredients are listed.</i></p> <p><i>Locate the manufacturers name and address on food labels and describe reasons this is available.</i></p>

Quantitative declaration of ingredients (QUID) The indication of quantity of an ingredient or category of ingredients can:

- be displayed as a percentage, which corresponds to the quantity of the ingredient or ingredients at the time of its/their use; and
- appear either in or immediately next to the name of the food or in the list of ingredients in connection with the ingredient or category of ingredients in question.

Net quantity All packaged foods above 5g or 5ml (except herbs and spices) must show the net quantity on the label to comply with

Foods that are packaged in liquid (or an ice glaze) must show the drained net weight.

Packaged food below 5g or 5ml are exempt from these requirements.

Size =

Storage conditions and date labelling

Food labels must be marked with either a 'best before' or 'use by' date so that it is clear how long foods can be kept and how to store them.

Name and address of manufacturer

The name and address of the manufacturer, packer or seller, must be stated on the label. The address needs to be a physical address within the EU where your business can be contacted by mail. You can't use an e-mail address or phone number. This gives consumers the opportunity to contact the manufacturer if they have a complaint about the product or if they want to know more about it.

Describe the difference between a best before date and a use by date, identifying reasons for each.

Country of origin or place of provenance

The label must clearly show where the food has come from and the origin of the main ingredients must be given if this is different from where the final product is made. Customers might be misled without this information, for example a Melton Mowbray Pork pie which was made in Italy.

You must show the country of origin for:

- beef, veal, lamb, mutton, pork, goat and poultry
- fish and shellfish
- honey
- olive oil
- wine
- fruit and vegetables imported from outside the EU

Preparation instructions/instructions for use.

Instructions on how to prepare and cook the food, including for heating in a microwave oven, must be given on the label if they are needed. If the food must be heated, the temperature of the oven and the cooking time will usually be stated.

Nutritional declaration

<p>The mandatory nutrition declaration must be clearly presented in a specific format and give values for energy and six nutrients. The values must be given in the units (including both kJ and kcal for energy) per 100g/ml, and the nutrition declaration must meet the minimum font size requirements.</p>	
<p>Traffic light labelling</p> <p>The labels on food must contain precise and accurate information about the nutrients the food contains.</p> <p>Traffic light labels highlight saturated fat, salt and sugar. They are colour coded in green, red or amber.</p> <p>Red = high amounts Amber = medium amounts Green = low amounts</p> <p>These amounts are in relation to your RI/RDI = reference intake (per day) The traffic light label also includes: % of RI the food provides per portion. How much RI per portion/serving. The amount of energy in kcal</p> <p>The nutritional table should always be listed in a certain order – required by law.</p> <p>Energy Fat Saturates Carbohydrates (of which are) sugars Fibre (not required by law) Protein Salt Vitamins and minerals (not required by law)</p> <p>The British Nutrition Foundation updates their food labelling information and laws</p> <p>https://www.nutrition.org.uk/nutritionscience/foodfacts/labelling.html?start=1</p>	<p><i>Identify nutrients displayed on a traffic light label.</i></p> <p><i>Explain the meaning of the three colours shown and the difference between each.</i></p> <p><i>Explain the term reference intake.</i></p> <p><i>Do mathematical sums to work out what % of nutrients have been/yet to be consumed when a particular food is consumed.</i></p> <p><i>Describe how consumers can use the TLL instead of a nutritional table.</i></p> <p><i>Prepare and cook a dish/recipe that is lower in these nutrients. I.e muffins not cakes.</i></p>
<p>Allergies and Intolerances</p> <p>An allergen is a substance or food that may cause an allergic reaction.</p> <p>Some food allergies are mild, but others can be very serious if the correct treatment is not given quickly.</p> <p>Some allergies can stop people breathing. Injections of adrenaline are needed from an Epi pen to help them recover.</p> <p>The most common food allergies are:</p> <ul style="list-style-type: none"> ● Cereal – containing gluten ● Peanuts ● Nuts ● Milk (lactose) ● Soya ● Mustard ● Lupin ● Eggs ● Fish 	<p><i>Describe the difference between an allergen and an allergic reaction.</i></p> <p><i>List foods that cause reactions and explain severe and less severe reactions.</i></p> <p><i>Explain how to check for allergens on food labels and what to look for.</i></p>

<ul style="list-style-type: none"> • Trifle • Shortbread • Custard • Fruit crumbles and fruit pies <p>British eating patterns include breakfast, elevenses, lunch, tea (afternoon tea) and dinner.</p> <p>Many people have three meals a day, breakfast, lunch and an evening meal.</p>	
<p>International cuisines</p> <p>As more people from other countries are living in Britain, and as we travel more, different cuisines and eating habits have come about.</p> <p>Many traditional cuisines have been replaced with ones originating from other countries.</p> <p>Italian Cuisine: Different foods in Italy are produced in different areas:</p> <ul style="list-style-type: none"> • The north is cooler and mountainous, rice is grown and the land is mostly used to rear animals and cured meats. • The south of the country is hotter, so crops such as tomatoes, olives and lemons are grown. <p>Traditional ingredients include; cured meat, olives, olive oil, mozzarella, parmesan, pasta, mascarpone cheese, fresh berries.</p> <p>Traditional dishes include; Gnocchi (potato dough) Pizza, risotto, lasagne cannelloni, spaghetti Bolognese, tiramisu, pannacotta.</p> <p>Chinese Cuisine: Chinese food is quick to make. Food is usually steamed or stir fried in a wok.</p> <p>Both are seen as healthy ways to cook.</p> <p>Traditional ingredients include; noodles and rice, fish and seafood, pork, duck and chicken. Vegetables, water chestnuts, bamboo shoots and beansprouts. Fruit – lychees.</p> <p>Traditional dishes include; Szechuan pork or beef, prawn toast, chop suey, spring rolls, lychee chicken.</p> <p>Indian Cuisine: India is mainly an agricultural country, growing crops.</p> <ul style="list-style-type: none"> • In The north, wheat is a staple food and used to make Chapati. • In the south, rice is the staple food, and curries with sauce. <p>Traditional ingredients include; basmati rice, atta (bread flour) goat, lamb, chicken, lentils, aubergines, spices like cumin, turmeric and cardamom and tea like chai and darjeeling.</p> <p>Traditional dishes include; tandoori fish, meat or chicken, naan bread and chapatis, lentil dahl, samosas, aubergine bhaji, flat breads and dips.</p>	<p><i>Prepare and cook foods from other cuisines.</i></p> <p><i>Explain how eating habits have changed in the UK and why.</i></p> <p><i>Describe why Chinese food is considered a healthy cuisine.</i></p> <p><i>List three-four cuisines, identifying ingredients and traditional dishes from each.</i></p>
<p>Sensory testing</p> <p>Different Types of sensory tests can be used to evaluate the appearance, taste, texture, consistency and smell of food.</p> <p>Preference tests (sometimes called acceptance tests) Used to find out if the food is acceptable to consumers.</p>	<p><i>Name the four characteristics food is judged on.</i></p> <p><i>Explain how sensory analysis is carried out.</i></p>

<p>These include</p> <ul style="list-style-type: none"> - Paired preference tests – given 2 samples and asked which you prefer. - Hedonic ranking – Asked if they like or dislike the product on a 5pt scale. <p>Discrimination test – this detects the differences between 2 or more samples.</p> <ul style="list-style-type: none"> - In this test you are given 3 samples. 2 are the same, 1 is different. You are asked to identify the odd one out. <p>Grading tests – place foods/samples in a specific order. i.e most sweet to least sweet.</p> <p>These include:</p> <ul style="list-style-type: none"> - Ranking tests, used to measure how strong a specific sensory property is. Strongest is ranked first. I.e which biscuit is the sweetest. - Rating test – the taster decides whether they like or dislike one aspect, i.e spiciness of similar foods. i.e samosas. - Profile testing – star profiles. Used to obtain a detailed description of appearance, taste, texture. Results are plotted on a star profile diagram. 	<p><i>Complete a sensory analysis on food cooked during practical lessons.</i></p> <p><i>Describe sensory characteristics of food from different cuisines.</i></p>
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Curriculum links to careers

Unit: All – Lesson completed at beginning of each term/rotation.

Term 1: Costume Designers - Film

Term 2: Food Nutritionist

Term 3: Electrician

Links: How careers across the industry link with the design process. Looking at the daily roles of specific people/careers and how their job is reliant on the iterative design process, an integral part of each project students' study in the rotation of D&T, textiles and food.

Outcome: Students identify links and explain how the employees work individually or as a team to meet the needs of the consumer/target market. Listing skills required for the role.

Knowledge Organiser - Word Power =

Cuisine

Allergy

Intolerance

Traffic light labelling

Mandatory

Use by date

Best before date

Sensory testing.

1. Soda bread
2. Spaghetti Bolognese
3. Bread and butter pudding
4. Cornish Pasty - pre made/ rolled pastry
5. Roast vegetable curry
6. Brownies