

## Subject: Food Technology year 10

**40 weeks**

**120 hours of Food Preparation & Nutrition.**



**ST. MARY MAGDALENE**  
C OF E SCHOOL  
PENINSULA CAMPUS  
*Excellence through innovation,  
founded in faith since 1840.*

6 half-termly rotations; each half-term will include:

- 3-5 weeks of commodity based theory and practical (depending on length of half term)
- 1 week of NEA Assessment 1; focus and practise
- 1 week of general nutrition and diet theory, and a linked practical (with associated written work in preparation for NEA Assessment 2).

GCSE Food Preparation and Nutrition is a linear specification: all assessments must be taken in the final academic year of award (year of cash-in). There are two non-examination assessments both of which must be completed by learners in their final year of entry. A choice of two briefs for NEA Assessment 1 (The Food Investigation Assessment) will be released annually on the secure website on 1 September, and a choice of two briefs for NEA Assessment 2 (The Food Preparation Assessment) will be released annually on the secure website on 1 November.

### **COMPONENT 1:** (Principles of Food Preparation and Nutrition)

- Written examination (50% of the qualification) sat in the summer term of year 11

### **COMPONENT 2:** (Food Preparation and Nutrition in Action)

Two non-examination assessments (NEAs) (50% of the qualification), to complete during year 11.

- Assessment 1: The Food Investigation Assessment (15% of the qualification)
- Assessment 2: The Food Preparation Assessment (35% of the qualification)

### **Prior learning**

Before starting this specification, learners should have typically engaged in food preparation and nutrition lessons (Key Stages 1–3) and should therefore have a basic understanding of the following aspects:

- Food preparation and cooking skills, such as knife skills, control of basic equipment (grater, peeler, kettle, can opener, sieve, whisk, etc.), control of oven, hob, grill, use of refrigeration, etc.
- How to work safely.
- Food hygiene (including how to wash up, dry and store equipment).
- Key nutritional principles, including the eatwell plate, the importance of macronutrients (protein, fats, carbohydrates), micronutrients (vitamin and minerals), dietary fibre, water – all at a basic level. An awareness of dietary needs, e.g. at different life stages, vegetarians,
- allergies and religious considerations, etc., and how dishes and meals can be planned to meet the needs of specific dietary groups.
- Simple ingredient function and food science terms, such as aeration, foaming, coagulation, etc.
- Familiarity with the basic principles of how to conduct a food science investigation.
- Knowledge and understanding of ingredients and food provenance.
- A growing awareness of social, moral, cultural and environmental issues.
- An ability to adapt and follow recipes using suitable ingredients and tools in order to prepare and cook a range of dishes.
- Sensory testing and evaluation.
- Time management skills, including basic dovetailing when conducting practical tasks.

# Long-term plan

Week	Month	Learning Intentions and/or Key Questions
Aut1-1	September	<p><b>Commodity: Fruit and vegetables</b>, including potatoes (fresh, frozen, dried, canned and juiced)</p>
Aut1-2		
Aut1-3		
Aut1-4		
Aut1-5	October	<p><b>Week 1:</b></p> <p><b>Provenance:</b></p> <ul style="list-style-type: none"> <li>• How/where fruit and vegetables are grown, link to climate, soil types</li> <li>• Bring in organic verses non-organic (Soil Association, etc.)</li> <li>• Use of pesticides and herbicides – discuss possible impact on health</li> <li>• Customer choice can be linked to cost – discuss</li> <li>• Food miles</li> <li>• Seasonality</li> </ul>
Aut1-6		<p><b>Week 2:</b></p> <p><b>How commodity is grown, reared and processed:</b></p> <ul style="list-style-type: none"> <li>• Select one or two appropriate fruits/vegetables and discuss growing, harvesting, etc.</li> <li>• Suggest link to your own area, e.g. West Country – apples, peas (lots of online videos to show growing, harvesting, storage and processing)</li> <li>• Clarify the difference between primary and secondary Processing</li> <li>• Include different methods of preservation (carry out a taste test on one fruit/vegetable by looking at fresh, frozen, canned, dried, jam, juiced, etc.) - link in with methods of sensory testing</li> <li>• Link in changes to texture, colour and flavour due to cooking</li> </ul>
Aut1-7		<p><b>Classification</b></p> <ul style="list-style-type: none"> <li>• Difference between fruits and vegetables – leaves, stems, roots, tubers, bulbs, etc.</li> </ul>
		<p><b>Week 3:</b></p> <p><b>Nutritional value</b></p> <ul style="list-style-type: none"> <li>• Recap on 5 a day – link to eatwell plate</li> <li>• Cover dietary fibre – soluble and insoluble</li> <li>• Water</li> <li>• Recap on vitamins and minerals (cover A, B, C, D, calcium and iron), and include complementary actions of the nutrients vitamin C and iron/vitamin D and calcium</li> <li>• Nutrient requirements – link to different life stages</li> <li>• Fat and water soluble vitamins – effect of oxidation, heat on vitamin content of fruits and vegetables</li> <li>• Compare nutrient content of a specific fruit or vegetable – fresh, frozen, canned, dried, etc.</li> </ul>
		<p><b>Dietary Considerations</b></p> <ul style="list-style-type: none"> <li>• Vegetarians (lacto/lacto-ovo/vegan)</li> <li>• Bone health – link in with vitamin D and calcium</li> <li>• Healthy blood – link in with vitamin C and iron</li> </ul>
		<p><b>Week 4:</b></p> <p><b>Food Hygiene and Safety</b></p> <ul style="list-style-type: none"> <li>• Recap on personal hygiene – good practice</li> <li>• Refrigeration temperatures</li> <li>• Why it is important to wash fruits and vegetables?</li> </ul>

		<ul style="list-style-type: none"> <li>• Discuss Use By and Best Before dates</li> <li>• Stock rotation</li> <li>• Bagged salads – food poisoning risk (link to processing of leaves for bagged salads)</li> </ul> <p><b>Storage</b></p> <ul style="list-style-type: none"> <li>• Ambient – loss of nutrient content over time; mention potatoes and solanine (green due to storage in light)</li> <li>• Chilling – where in fridge should items be stored? Reinforce refrigeration temperatures</li> <li>• Why canned foods should be decanted after opening, if not used immediately</li> <li>• Freezing – link in blanching to slow down enzymic browning, home freezing, large scale freezing (nitrogen). Reinforce freezing temperatures</li> </ul> <p><b>Week 5:</b>  <b>NEA 1 – practice investigation</b>  Suggested investigations could include:  Enzymic browning (practical and written work covered)</p> <ul style="list-style-type: none"> <li>• Which fruits and vegetables turn brown?</li> <li>• Can enzymic browning be slowed down or stopped?</li> <li>• Does the way in which fruits and vegetables are cut affect their enzymic browning?</li> <li>• How does the texture of fruits and vegetables change when cooked?</li> </ul> <p><b>Food Science</b></p> <ul style="list-style-type: none"> <li>• Composition of fruits and vegetables</li> <li>• Oxidation/enzymic browning</li> </ul> <p><b>Week 6:</b>  <b>NEA 2 – Mock controlled assessment.</b>  Pupils chooses dish and cooks under controlled conditions.</p> <p><b>Week 7:</b>  Written exam - fruits and vegetable focus.</p>
		<b>Half term holiday</b>
Aut2-1	November	<b>Commodity: Milk, cheese and yoghurt</b> and alternatives
Aut2-2		
Aut2-3		
Aut2-4		
Aut2-5		
Aut2-6	December	<p><b>Week 1:</b>  <b>Provenance:</b></p> <ul style="list-style-type: none"> <li>• Debate local versus nationally distributed and also imported</li> <li>• Bring in cost and impact on milk prices for farmers livelihood</li> <li>• Link in food miles, why consumers may choose organic</li> <li>• Food wastage and sustainability</li> </ul> <p><b>Week 2:</b>  <b>How commodity is grown, reared and processed:</b></p> <ul style="list-style-type: none"> <li>• How animals are reared, fed and milked. Animal sources of milk</li> <li>• Different methods of preserving milk (drying, UHT, pasteurisation, etc.) –link to convenience foods</li> <li>• Importance of hygiene for effective food safety (heat treatment)</li> <li>• Effect on nutritional content from processing</li> <li>• Examples of secondary processing – milk to cream, yoghurt, cheese, etc. Videos available online to show processing</li> </ul> <p><b>Classification</b></p>
Aut2-7		

- Different animal sources (also link in non-dairy milk – e.g. nut, soya, coconut; alternatives to non-dairy cream)
- Link secondary processing – to cream, yoghurt, cheese, etc.
- Different types of milk – skimmed, semi-skimmed, etc.
- Different types of cream – whipping, soured, etc. (link to fat content)
- Different types of cheese – hard, soft, etc. (link to fat content)

### **Week 3:**

#### **Nutritional value**

- Nutrient requirements (linked to different life stages)
- Protein – HBV and discuss amino acids
- Fats – saturated
- Recap on vitamins and minerals (cover vitamins A and D and calcium), and include complementary actions of the nutrients vitamin D and calcium
- Fat soluble vitamins A and D
- Trace element – iodine
- Effect on nutritional content from processing

#### **Dietary Considerations**

- Link to bone health: Calcium and vitamin D
- Link to allergies: Lactose intolerance from cow milk (why?)
- What are the alternatives?
- Link to heart health: Fat content and type

### **Week 4:**

#### **Food Hygiene and Safety**

- Concept of high risk foods (dairy being a category)
- How bacteria multiplies
- How to avoid cross-contamination
- Why heat treating raw milk is important – link to food science
- How should dairy based products be stored? Temperatures?

#### **Storage**

- Link to dried, cartons, unopened and opened cans, fresh,
- frozen, etc.
- What are suitable conditions for storage? Why?

### **Week 5:**

#### **NEA 1 – practice investigation**

Suggested investigations could include:

- Demonstrate and explain how an emulsion is formed when making butter.
- Explain the changes that take place in milk when it is heated.
- Make yoghurt and explain the food science behind it.
- Make cheese and explain the food science behind it.
- Why is UHT milk slightly less white? Compare the flavour of UHT milk with fresh milk and discuss.

#### **Food Science**

- Chemical and physical structure of dairy based products
- Emulsion – explain why milk is an emulsion
- Denaturation and coagulation of milk proteins
- Making cream, butter, yoghurt – the science behind it
- Making cheese – use of rennet (curds and whey).
- Benefits of bacteria in the making of yoghurt, cheese, etc.
- Effect of heat on cheese

### **Week 6:**

#### **NEA 2 – Mock controlled assessment.**

		<p>Pupils chooses dish and cooks under controlled conditions.</p> <p><b>Week 7:</b> Written exam - dairy focus.</p>
		<b>Christmas holiday</b>
Spr1-1	January	<p><b>Commodity: Cereals</b> (including flours, breakfast cereals, bread and pasta)</p> <p><b>Week 1:</b> <b>Provenance:</b></p> <ul style="list-style-type: none"> <li>• How climate, soil, etc., affects the types of cereals which can grow</li> <li>• GM crops – discuss</li> <li>• Cereal – as a staple food; impact of crop failure on health of a nation (link to sustainability and world health)</li> </ul> <p><b>Week 2:</b> <b>How commodity is grown, reared and processed:</b></p> <ul style="list-style-type: none"> <li>• Look at how cereals are grown, harvested and processed</li> <li>• General structure of grain – endosperm, germ and bran</li> <li>• Suggest focusing on wheat and rice as there are many resources available</li> <li>• Milling of wheat into flour – key processing stages</li> <li>• Secondary processing: Breakfast cereals – use different grains and look at sugar and salt content (link in food labelling on packaging – look at breakfast cereal packaging to compare cereal types and nutrients – how healthy are the cereals? Also, link in function of packaging and environmental impact, and marketing of breakfast cereals – who are these cereals aimed at?) Wheat into bread types, pasta Key stages in the bread making process Key stages in the pasta making process</li> </ul> <p><b>Classification</b></p> <ul style="list-style-type: none"> <li>• Look at the range of cereals grown and eaten across the world</li> <li>• Link secondary processing to selected cereals:</li> <li>• Wheat – wholemeal, white, self-raising, semolina, etc.</li> <li>• Rice – brown, white, basmati, Arborio, rice flour, rice vinegar, etc.</li> <li>• Oats – rolled, oatmeal, etc.</li> <li>• Discuss gluten-free flour</li> </ul> <p><b>Week 3:</b> <b>Nutritional value</b></p> <ul style="list-style-type: none"> <li>• Cereals are a staple food (primary source of carbohydrate)</li> <li>• Energy requirements (link to different groups)</li> <li>• Balance of energy input with energy output</li> <li>• Nutrient requirements (link to different life stages)</li> <li>• Carbohydrate – starch</li> <li>• Dietary fibre (NSP: non-starch polysaccharide) – soluble and insoluble B vitamins</li> <li>• Effect of nutrient absorption due to presence of phytates</li> <li>• Principal of fortification of food in the context of flour and breakfast cereals</li> <li>• Water soluble vitamin B group – effect of cooking</li> </ul> <p><b>Dietary Considerations</b></p> <ul style="list-style-type: none"> <li>• Importance of wholegrains to reduce risk of heart disease, type 2 diabetes and control blood cholesterol</li> </ul>
Spr1-2		
Spr1-3		
Spr1-4		
Spr1-5		
Spr1-6	February	

		<ul style="list-style-type: none"> <li>• Link to effect of low-fibre diet: Haemorrhoids, diverticulitis, cancer of the colon</li> <li>• Deficiencies: Beriberi – lack of thiamin (vitamin B1) Pellagra – lack of niacin (vitamin B3)</li> <li>• Allergies: Coeliac disease</li> </ul> <p><b>Week 4:</b> <b>Food Hygiene and Safety</b> Concept of low risk foods (exception includes cooked rice) Food spoilage – mould, etc. Food safety issues with cooked rice</p> <p><b>Week 5:</b> <b>NEA 1 – practice investigation</b> Suggested investigations could include:</p> <ul style="list-style-type: none"> <li>• Investigate the best flour for breadmaking (suggest gluten ball experiment, or making small batches of rolls using different flours and then conduct sensory testing)</li> <li>• Conduct an experiment to show the gelatinisation of a range of starches. What happens when these starches are frozen and then defrosted?</li> <li>• Conduct an experiment to find out the effect of other ingredients on the thickness of starch</li> <li>• What happens when you apply dry heat to starch?</li> </ul> <p><b>Food Science</b></p> <ul style="list-style-type: none"> <li>• Chemical and physical structure of cereal grains</li> <li>• Gluten formation, gelatinisation, coagulation, dextrinisation, retrogradation</li> <li>• Gels</li> <li>• Breadmaking: <ul style="list-style-type: none"> <li>• Scientific principles, including problem solving</li> <li>• Chorleywood process in breadmaking</li> <li>• Vitamin C (ascorbic acid) in large scale bread manufacturing</li> </ul> </li> <li>• Yeast as a raising agent</li> <li>• Recap on types of raising agents and discuss their principles</li> </ul> <p><b>Week 6:</b> <b>NEA 2 – Mock controlled assessment.</b> Pupils chooses dish and cooks under controlled conditions.</p> <p><b>Week 7:</b> Written exam - cereals focus.</p>
		<b>Half term holiday</b>
Spr2-1	March	<p><b>Commodity: Protein</b> Meat, fish, poultry, eggs</p> <p><b>Week 1:</b> <b>Provenance:</b></p> <ul style="list-style-type: none"> <li>• Look at and compare geographical areas where meat, fish, poultry and eggs are reared/produced</li> <li>• Discuss local verses imported (e.g. Welsh lamb verses New Zealand lamb, North sea fishing verses southern hemisphere fishing, local eggs verses imported eggs from Europe)</li> <li>• Compare sea fish and farmed fish (can link to fish quotas and availability/ethical fishing – Marine Stewardship Council, etc.)</li> <li>• Intensive farming verses natural farming Link to animal welfare</li> </ul>
Spr2-2		
Spr2-3		
Spr2-4		
Spr2-5		
Spr2-6		

## **Week 2:**

### **How commodity is grown, reared and processed:**

- Links in with provenance
- Look specifically at an animal of your choice, and review how this animal is farmed/reared and slaughtered (cattle, pigs, sheep, etc.)
- Link to animal feed (can reference BSE) and shelter
- How fish (including shellfish) is caught – again, reference sea fish and farmed fish (fish quotas and availability/ethical fishing)
- Poultry (including eggs) – how poultry is reared and slaughtered/how egg farming is conducted (different animal sources as well as hens eggs). Can mention game, briefly
- Secondary processing:
  - Cuts of meat and poultry, processing into bacon, ham, sausages, pies, etc. (link to methods of preservation)
  - Offal
  - Cuts of fish (whole, steaks, filets, etc.)
  - Eggs – pasteurised whole/white/yolk (link to food safety and convenience)

### **Classification**

- Animal types
- Cuts of meat (link in methods of cooking – tender versus tough cuts, and cost)
- Gelatine
- Categories of fish – white/oily/shell, etc., also flat, round, etc. (link in preservation – canned, smoked, etc.)
- Types of egg

## **Week 3:**

### **Nutritional value**

- Nutrient requirements (link to different life stages)
- Protein (HBV)
- Saturated fat
- B vitamins
- Iron (include complementary action of vitamin C with iron)
- Trace element – iodine and fluoride in fish and shellfish
- Health benefits of eating fish Omega 3 in oily fish

### **Dietary Considerations**

- Implications of excess or deficiency of protein
- Healthy blood – iron (haem and non-haem iron)
- Iron deficiency, and recap on complementary actions of vitamin C and iron
- Health benefits of omega 3
- Include religious considerations when eating meat

## **Week 4:**

### **Food Hygiene and Safety**

- High risk foods – link to specific food poisoning bacteria, correct storage temperatures
- How to tell if meat is 'off'
- Can link to preservation (e.g. dried meat, canned meat, pie fillings, smoked sausages, dried egg, etc.)
- How to tell fish is fresh
- Lion mark on egg

### **Storage**

- Link with food hygiene and safety, also link with
- preservation (e.g. how to store diced, frozen, canned foods as well as fresh foods)

		<p><b>Week 5:</b>  <b>NEA 1 – practice investigation</b>  Suggested investigations could include:</p> <ul style="list-style-type: none"> <li>• Make a batch of meringues and explain the changes that take place within the egg white protein.</li> <li>• Show how the setting of egg protein can be affected when making baked egg custard.</li> <li>• Show and explain how egg white foaming is affected when other ingredients are added.</li> <li>• Investigate the changes that take place in meat (or fish) during cooking.</li> <li>• Conduct an experiment to show the best way to tenderise meat by breaking down the connective tissue.</li> </ul> <p><b>Food Science</b></p> <ul style="list-style-type: none"> <li>• Chemical and physical structure of meat, fish, poultry and eggs</li> <li>• Denaturation (e.g. uncoiling of protein molecules when making meringues)</li> <li>• Coagulation (e.g. setting of egg in cakes)</li> <li>• Foaming (e.g. formation of foam when whisking egg white protein)</li> <li>• Aeration</li> <li>• Connective tissue in meat and fish – how this should affect the cooking method</li> <li>• Maillard reaction</li> </ul> <p><b>Week 6:</b>  <b>NEA 2 – Mock controlled assessment.</b>  Pupils chooses dish and cooks under controlled conditions.</p> <p><b>Week 7:</b>  Written exam - cereals focus.</p>
	April	<b>Easter holiday</b>
Sum1-1		<p><b>Commodity: Butter, oils, margarine, sugar and syrup</b></p> <p><b>Week 1:</b>  <b>Provenance:</b></p> <ul style="list-style-type: none"> <li>• Food miles (UK verses imported raw materials to make the butter, oil, margarine)</li> <li>• Where is sugar cane and sugar beet grown?</li> <li>• Organic verses non-organic, GM</li> </ul> <p><b>Week 2:</b>  <b>How commodity is grown, reared and processed:</b>  Butter, oils, margarine</p> <ul style="list-style-type: none"> <li>• Butter – how is butter made?</li> <li>• Oils/margarine – growing of vegetable crop for oil production, include pressing (mention fish oil)</li> <li>• Processing of margarine – different oil types used, fortification</li> </ul> <p>Sugar and syrup</p> <ul style="list-style-type: none"> <li>• Cane and beet (climate requirements), refining process,</li> <li>• process of making syrup</li> <li>• Primary processing:</li> <li>• Oil, sugar</li> <li>• Secondary processing:</li> <li>• Butter, margarine, sugar syrups</li> </ul> <p>Videos available online to show processing</p> <p><b>Classification</b></p>
Sum1-2		
Sum1-3	May	
Sum1-4		
Sum1-5		
Sum1-6		



Butter, oils, margarine (mention animal and vegetable fats)

- Hard fats – solid at room temperature
- Liquid fats – liquid at room temperature
- Butter – salted, unsalted (mention lard and suet)
- Margarine – different oil bases (sunflower, olive, soya, etc.). Is margarine healthy? (hydrogenation)
- Fortification (mention vegetable shortening)

Sugar and syrup

- Sugar cane, sugar beet, types of syrup (monosaccharides and disaccharides, e.g. treacle, golden syrup)

(mention sugar substitutes)

### **Week 3:**

#### **Nutritional value**

Butter, oils, margarine

- Nutrient requirements (linked to different life stages)
- Energy dense
- Saturated and unsaturated fats
- Calcium and vitamin content
- Fortification

Sugar and syrup

- Empty calories, link to weight gain, obesity, dental caries, type 2 diabetes, etc.
- Free sugars

#### **Dietary Considerations**

Butter, oils, margarine

- Energy dense
- Implications of a diet high in saturated fat
- Making sensible choices on fat type (unsaturated, etc.)
- Lower fat alternatives
- Fat soluble vitamins

Sugar and syrup

- Consider sugar alternatives, including natural sugars
- Again link to obesity, type 2 diabetes and dental caries

### **Week 4:**

#### **Food Hygiene and Safety**

Butter, oils, margarine

- Discuss storage relating to rancidity

Sugar and syrup

- Low risk – cover foreign bodies, pests, etc.

#### **Storage**

Butter, oils, margarine

- Where should butter and margarine be stored?
- Reinforce chilled food temperatures
- Where should oil be stored? Discuss effect of light on quality and longevity of oil

Sugar and syrup

- Where should sugar be stored? Why is humidity a consideration?
- Syrup storage? Crystallisation?

### **Week 5:**

#### **NEA 1 – practice investigation**

Suggested investigations could include:

Butter, oils, margarine

		<ul style="list-style-type: none"> <li>• Demonstrate the creaming properties of fats when making a sponge cake using the creaming method. Which fat produces the best results? Explain why.</li> <li>• Show the shortening properties of fats when making a shortcrust pastry. Which fat produces the best results? Explain why.</li> <li>• Make butter to show the emulsification process. Explain what is happening during this process.</li> <li>• Conduct an experiment to show which ingredients will help to stabilise mayonnaise and prevent the mix from separating.</li> </ul> <p>Sugar and syrup</p> <ul style="list-style-type: none"> <li>• What happens when sugar (sucrose) is heated?</li> </ul> <p><b>Food Science</b></p> <p>Butter, oils, margarine</p> <ul style="list-style-type: none"> <li>• Chemical and physical structure of butter, oils, margarine</li> <li>• Hydrogenation of oils to produce hard fats – health implications</li> <li>• Plasticity</li> <li>• Shortening</li> <li>• Emulsification – make butter</li> <li>• Melting point/smoke point</li> </ul> <p>Sugar and syrup</p> <ul style="list-style-type: none"> <li>• Chemical and physical structure of sugar and syrup</li> <li>• Caramelisation</li> </ul> <p><b>Week 6:</b> <b>NEA 2 – Mock controlled assessment.</b> Pupils chooses dish and cooks under controlled conditions.</p> <p><b>Week 7:</b> Written exam - fats focus.</p>
	June	<b>Half term holiday</b>
Sum2-1	July	<p><b>Commodity: Soya, tofu, beans, nuts, seeds</b></p> <p><b>Week 1:</b> <b>Provenance:</b></p> <ul style="list-style-type: none"> <li>• Recap on how/where soya, beans, nuts and seeds are grown, link to climate, soil types</li> <li>• Organic verses non-organic</li> <li>• Food miles</li> <li>• Seasonality</li> </ul> <p><b>Week 2:</b> <b>How commodity is grown, reared and processed:</b></p> <p>Soya, tofu</p> <ul style="list-style-type: none"> <li>• How soya beans are cultivated</li> <li>• Secondary processing:</li> <li>• How soya is processed into tofu, TVP (textured vegetable protein), and link back to soya milk</li> </ul> <p>How beans (pulses/legumes), nuts and seeds are grown</p> <ul style="list-style-type: none"> <li>• Include: mycoprotein (Quorn TM) – what it is derived from, how it is processed into mycoprotein</li> <li>• Secondary processing: <ul style="list-style-type: none"> <li>○ Beans (legumes) – link to preservation (drying and canning)</li> <li>○ Nuts – ground, flaked, nibbed, etc.</li> <li>○ Seeds – drying, etc.</li> </ul> </li> </ul> <p>Videos available online to show processing</p>
Sum2-2		
Sum2-3		
Sum2-4		
Sum2-5		
Sum2-6		
Sum2-7		

### **Classification**

- Soya products – milk, yoghurt, TVP, tofu, tempeh
- Beans (legumes) – red kidney, black eyed, aduki, etc.
- Nuts – brazil, cashew, almonds, etc. (include a discussion on 14 allergens)
- Seeds – sesame, poppy, caraway, etc.

### **Week 3:**

#### **Nutritional value**

- Soya products and Quorn TM
- Protein, amino acids, HBV source
- Beans (legumes), nuts and seeds
- Protein, amino acids, LBV source
- Complementing proteins
- High in fibre and other nutrient sources

#### **Dietary Considerations**

- Soya products and Quorn TM
- Good HBV source for vegetarians
- Beans (legumes), nuts and seeds
- Good LBV source for vegetarians
- Nuts – high in good fats
- Allergies:
  - Nuts (link to 14 allergens)
- Fibre source – recap on soluble and insoluble

### **Week 4:**

#### **Food Hygiene and Safety**

- Soya products and Quorn TM
- Recap on storage temperatures
- Beans (legumes), nuts and seeds
- Keep nuts away from other food sources – risk of allergen contamination
  - Discuss nut storage relating to rancidity

#### **Storage**

- Soya products and Quorn TM
- Recap on chilled, frozen, ambient, and discuss suitable storage
- Beans (legumes), nuts and seeds
- Discuss suitable storage (mostly ambient)
- Rancidity of nuts – how to avoid this

### **Week 5:**

#### **NEA 1 – practice investigation**

Soya products and Quorn TM

Beans (legumes), nuts and seeds

- How effective are ground nuts when used as a thickener?

#### **Food Science**

- Soya products and Quorn TM
- Beans (legumes), nuts and seeds
  - Nuts as a thickener

### **Week 6:**

#### **NEA 2 – Mock controlled assessment.**

Pupils chooses dish and cooks under controlled conditions.

### **Week 7:**

Written exam – alt protein focus.

## Medium Term plan

Weeks 1–7		
Autumn 1	Commodity: Fruit and vegetables, including potatoes (fresh, frozen, dried, canned and juiced)	
	Theory	Practical (reinforce theory from previous lesson)
Week 1	Introduction to the course, set expectations, target grades, how learners will be assessed, etc. General recap on nutrition Introduce/recap on concept of provenance, and how this commodity is grown Classification of fruits and vegetables	Sensory analysis: Exotic fruits taster session
Week 2	Continue with how this commodity is grown, and also include processing Include storage and food hygiene and safety	Knife skills: vegetable spring rolls (pre made pastry)
Week 3	Nutritional values (include sources, functions, deficiencies, excess, daily requirements) Dietary considerations – specifically to fruits and vegetables <b>CCL – Diet &amp; Health year 9 B3 Sprint term 'infection and response'</b>	Pineapple upside-down cake <i>(touch on methods of cake making)</i>
Week 4	Enzymic browning and oxidation (carry out a simple browning experiment) and introduce the concept of NEA Assessment 1 (practical and written expectations) <b>CCL – Science year 9 B2 Autumn term 'Organisation'</b>	Apple Crumble (focusing on enzymic browning of apples and sugar)
Week 5 NEA Assessment 1 focus and practice	Continue with enzymic browning and oxidation Introduce a written brief, conduct an experiment  Note: as the terms progress, build in more written work so that by the end of Year 10 learners will understand the expectations of the Year 11 NEA Assessment 1 (research methods, hypothesis setting, plan of action, writing up an experiment, analysis results of experiment and drawing conclusions, referencing sources) <b>CCL – How to conduct an experiment year 7 Introduction lesson and throughout KS3</b>	Write up experiment (can focus on specific aspect if time is limited)
Week 6  General nutrition and diet theory, and a linked practical	Understanding of dietary reference values (EAR/RNI/LRNI/Safe Intake) BNF document Plan a dish suitable for one group listed above under Dietary considerations (e.g. high-fibre for person with iron deficiency anaemia, high in calcium for person with brittle bones) Use a nutritional analysis program to calculate nutrients and analyse data: <a href="https://explorefood.foodafactoflife.org.uk/">https://explorefood.foodafactoflife.org.uk/</a>	Dish selected by learner (under teacher guidance)
Week 7	Written assessment; fruit and veg focus	Self/peer assessment

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**Weeks 8–14**

<b>Autumn 2</b>	<b>Commodity: Milk, cheese and yoghurt</b>	
	<b>Theory</b>	<b>Practical (reinforce theory from previous lesson)</b>
Week 1	Introduce/recap on concept of provenance, and how this commodity is grown/reared and processed	Panna cotta (touch on setting using gelatin)
Week 2	Continue with how this commodity is grown, and also include primary and secondary processing (including pasteurisation) Include storage and food hygiene and safety	Macaroni cheese (touch on sauce making, dry pasta)
Week 3	Nutritional values (include sources, functions, deficiencies, excess, daily requirements) Dietary considerations – specifically to milk, cheese and yoghurt	Cheese cake (touch on setting with no gelatin)
Week 4	Food science lesson ( <i>make butter as a class – pass around jar and shake</i> ) Cover the concepts listed above under Food science	Carbonara with freshly made pasta
Week 5 NEA Assessment 1 focus and practise	Continue with food science Introduce a written brief, conduct an experiment Note: as the terms progress, build in more written work so that by the end of Year 10 learners will understand the expectations of the Year 11 NEA Assessment 1 ( <i>research methods, hypothesis setting, plan of action, writing up an experiment, analysis results of experiment and drawing conclusions, referencing sources</i> )	Write up experiment
Week 6 General nutrition and diet theory, and a linked practical	Plan a dish suitable for one group listed above under Dietary considerations (e.g. low in saturated fat, suitable for person with osteoporosis, lactose-free) Use a nutritional analysis program to calculate nutrients and analyse data, cost dish Note: as the terms progress, build in more written work so that by the end of Year 10 learners will understand the expectations of the Year 11 NEA Assessment 2	Dish selected by learner ( <i>under teacher guidance</i> )
Week 7	Written assessment; dairy focus	Self/peer assessment

Weeks 15–21		
Spring 1	Commodity: Cereals (including flours, breakfast cereals, bread and pasta)	
	Theory	Practical (reinforce theory from previous lesson)
Week 1	Introduce/recap on concept of provenance, and how this commodity is grown and processed Milling of wheat into flour and classifications	Basic bread rolls/focaccia bread
Week 2	Continue with how this commodity is grown, and also include processing Include storage and food hygiene and safety Rice milling and classification Other cereals	American chocolate chip cookies
Week 3	Nutritional values (include sources, functions, deficiencies, excess, daily requirements) Dietary considerations – specifically to cereals	Risotto (chicken or mushroom)
Week 4 NEA Assessment 1 focus and practise	Continue with food science: <b>experiment to show the gelatinisation of a range of starches. What happens when these starches are frozen and then defrosted?</b> Introduce a written brief, conduct an experiment Note: as the terms progress, build in more written work so that by the end of Year 10 learners will understand the expectations of the Year 11 NEA Assessment 1 (research methods, hypothesis setting, plan of action, writing up an experiment, analysis results of experiment and drawing conclusions, referencing sources) <b>CCL – Science Unit 3 year 7 'particles mixtures and solutions'</b>	Write up experiment
Week 5 General nutrition and diet theory, and a linked practical	Plan a dish suitable for one group listed above under Dietary considerations (e.g. high-fibre, gluten-free (coeliacs), suitable for diabetics, etc.) Use a nutritional analysis program to calculate nutrients and analyse data, cost dish Note: as the terms progress, build in more written work so that by the end of Year 10 learners will understand the expectations of the Year 11 NEA Assessment 2	Dish selected by learner (under teacher guidance)
Week 6	Written assessment; dairy focus	Self/peer assessment

Weeks 22–28		
Spring 2	Commodity: Meat, fish, poultry, eggs	
	Theory	Practical (reinforce theory from previous lesson)
Week 1	Introduce/recap on concept of provenance, and how this commodity is reared and processed	Portioning chicken (bbq chicken wings and freeze the rest)
Week 2	Continue with how this commodity is reared and processed, primary and secondary processing Include storage and food hygiene and safety	Scotch eggs
Week 3	Nutritional values (include sources, functions, deficiencies, excess, daily requirements) Dietary considerations – specifically to meat, fish, poultry, eggs	Gutting and filleting fish and baking en papillote
Week 4	Food science lesson – marinating (make the marinade and apply it to chicken legs today) Cover the concepts listed above under Food science	Jerk Chicken and rice
Week 5 NEA Assessment 1 focus and practise	Continue with food science: <b>Foaming (e.g. formation of foam when whisking egg white protein) The best method to make a meringue.</b> Introduce a written brief, conduct an experiment (suggest egg based experiment) Note: as the terms progress, build in more written work so that by the end of Year 10 learners will understand the expectations of the Year 11 NEA Assessment 1 (research methods, hypothesis setting, plan of action, writing up an experiment, analysis results of experiment and drawing conclusions, referencing sources)	Write up experiment
Week 6 General nutrition and diet theory, and a linked practical	Plan a dish suitable for one group listed above under Dietary considerations (e.g. religious restrictions, for an elderly person, for a person with heart disease, and could also include a low cost budget to encourage cheaper cuts of meat)  Use a nutritional analysis program to calculate nutrients and analyse data, cost dish, justify choices. At this point, learners should also be able to compose a time plan, shopping list and equipment list. Note: as the terms progress, build in more written work so that by the end of Year 10 learners will understand the expectations of the Year 11 NEA Assessment 2	Dish selected by learner (under teacher guidance)

Weeks 29–35		
Summer 1	Commodity: Butter, oils, margarine, sugar and syrup	
	Theory	Practical (reinforce theory from previous lesson)
Week 1	Introduce/recap on concept of provenance, and how this commodity is reared/grown and processed	Make rough puff pastry (puff pastry cinnamon swirls)
Week 2	Continue with how this commodity is reared/grown and processed Include storage and food hygiene and safety	Apple tarte tatin (using rough puff pastry)
Week 3	Nutritional values (include sources, functions, deficiencies, excess, daily requirements) Dietary considerations – specifically to butter, oils, margarine, sugar and syrup	Potato salad/Vegetable slaw (focus is on making mayonnaise)
Week 4	Food science lesson Cover the concepts listed above under Food science	Lemon meringue pie
Week 5 NEA Assessment 1 focus and practise	Continue with Food science <b>Demonstrate the creaming properties of fats when making a sponge cake using the creaming method. Which fat produces the best results? Explain why.</b> Introduce a written brief, conduct an experiment Note: as the terms progress, build in more written work so that by the end of Year 10 learners will understand the expectations of the Year 11 NEA Assessment 1 (research methods, hypothesis setting, plan of action, writing up an experiment, analysis results of experiment and drawing conclusions, referencing sources)	Write up experiment
Week 5 homework	Plan a dish suitable for one group listed above under Dietary considerations (e.g. religious restrictions, for an elderly person, for a person with heart disease, and could also include a low cost budget to encourage cheaper cuts of meat)  Use a nutritional analysis program to calculate nutrients and analyse data, cost dish, justify choices. At this point, learners should also be able to justify choices linked to the brief and the nutritional data calculated, compose a time plan, shopping list and equipment list.	
Week 6 General nutrition and diet theory,	Written exam focus on proteins and fats.	Dish selected by learner (under teacher guidance)



and a linked practical		
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<b>Weeks 35–40</b>		
<b>Summer 2</b>	<b>Commodity: Soya, tofu, beans, nuts, seeds</b>	
	<b>Theory</b>	<b>Practical (reinforce theory from previous lesson)</b>
Week 1	Introduce/recap on concept of provenance, and how this commodity is grown and processed	Tofu and coconut milk curry and rice
Week 2	Continue with how this commodity is reared/grown and processed Include storage and food hygiene and safety	Vegetable and bean casserole
Week 3	Nutritional values (include sources, functions, deficiencies, excess, daily requirements) Dietary considerations – specifically to soya, tofu, beans, nuts, seeds	Swap minced beef/lamb/pork with TVP Chilli con Carne
Week 4	Food science lesson Cover the concepts listed above under Food science (there isn't much content, so it would be possible to go straight to Week 6)	Lentil curry
Week 6 General nutrition and diet theory and a linked practical	Plan a dish suitable for one group listed above under Dietary considerations (e.g. low-calorie, sporty/active person, pregnant woman)  Use a nutritional analysis program to calculate nutrients and analyse data, cost dish, justify choices. At this point, learners should also be able to justify choices linked to the brief and the nutritional data calculated, compose a time plan, shopping list and equipment list. Note: as the terms progress, build in more written work so that by the end of Year 10 learners will understand the expectations of the Year 11 NEA Assessment 2	Dish selected by learner (under teacher guidance)