




Year 3 Design and Technology: Food and Nutrition – Block D

How does food affect your body and mind?

- This block is set in the context of the CUSP Science unit ‘Animals, including humans’.
- The outline and structure of the block is as follows:

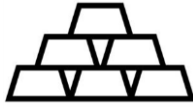
Lesson 1	Lesson 2	Lesson 3	At the end of this block, pupils will ...	
Exploring nutrition	Exploring healing qualities of food	Exploring sensory qualities of food	Know:	Be able to:
Explicit teaching of culinary skills and techniques	Explicit teaching of culinary skills and techniques	Applying skills	How food can help their body and mind	Peel and grate a range of vegetables
Evaluating outcomes	Evaluating outcomes	Modifying and improving	How to prepare and cook a range of vegetables	Add flavour and texture to foods

			<p>In this unit, pupils will explore the nutritional value of food and its effect on our physical and mental health. Pupils will practise methods for preparing a range of vegetables and apply these skills to create different dishes. They will learn how to change the texture and flavour of food by roasting and adding herbs and spices.</p>
<i>Noodle salad</i>	<i>Stuffed peppers</i>	<i>Roasted cauliflower and dip</i>	

CUSP Design & Technology Long term sequence	Block A	Block B	Block C	Block D	Block E	Block F
Year 1	Mechanisms	Structures	Food and Nutrition	Understanding Materials	Textiles	Food and Nutrition
Year 2	Textiles	Food and Nutrition	Mechanisms	Understanding Materials	Food and Nutrition	Structures
Year 3	Textiles	Food and Nutrition	Mechanisms	Food and Nutrition	Systems	Structures
Year 4	Food and Nutrition	Mechanisms	Textiles	Structures	Electrical Systems	Food and Nutrition
Year 5	Food and Nutrition	Systems	Textiles	Mechanisms	Structures	Food and Nutrition
Year 6	Food and Nutrition	Mechanisms	Food and Nutrition	Structures	Electrical Systems	Textiles

Point of reference:

Y3 Food and Nutrition – Block D



Prior Learning

Pupils will be able to:

- use the bridge method to cut food safely
- identify and describe key flavours

- peel, chop and grate a selection of vegetables
- describe how food can affect the senses

Nutrition Notes:

All fruit and vegetables contain different vitamins and minerals. These are known as micronutrients as the actual amount in weight that the body needs is very small. Many of these micronutrients cannot be stored in our bodies so it is essential to eat them regularly – hence the ‘five a day’ campaign. For this age of pupil, however, a simple rule is the wider the range of vegetables they eat, the better; similarly, the more colours of vegetables they eat, the greater the variety of micronutrients they are intaking. Studies have found that one of the major reasons for children not eating some vegetables is that they are not used to eating bitter or sour flavours so experimenting with these flavours aims to increase their vegetable intake. Cooking most vegetables reduces the nutritional content so minimal cooking or eating raw forms a major part of this unit.

Links to Literature:

Which food will you choose? by Claire Potter

Health and Safety:






This block requires pupils to use: peelers, knives and hobs. Teachers should ensure that they follow their own school’s risk assessments and policies for using the necessary materials and equipment. Pupils should be taught about how to use materials and equipment safely and responsibly as part of these lessons.

Food Hygiene:

Please ensure all foods purchased are correctly stored and at the appropriate temperature. All food made should be cooled before being refrigerated. All food should be taken home and consumed within three days. All the recipes are suitable to be eaten hot or cold. Please refer to your school's allergy register before starting this block.

Environmental Factors	Cultural Links
Eating locally grown vegetables that are in season not only reduces the carbon footprint of our food, but some studies have shown that they often contain more nutrients. Eating in season also allows farmers to rotate crops more easily and improve soil quality.	There is now a wide range of vegetables on offer such as kohlrabi, pak choi, sweet potato etc. These vegetables were not previously a major part of our diet but easier access to food from different cultures has radically changed what we eat in the UK.

Supporting Recipe: Y3 Food and Nutrition – Block D

	Lesson 1	Lesson 2	Lesson 3
Dish 	Noodle salad	Stuffed peppers	Roasted cauliflower and dip
Equipment 	Peelers Mixing bowls Chopping boards Graters Vegetable knives Kettle or saucepans for boiling water	Oven trays Peelers Mixing bowls Chopping boards Graters Vegetable knives Kettle or saucepans for boiling water Plastic wrap	Oven trays Peelers Mixing bowls Chopping boards Graters Vegetable knives
Ingredients 	<i>Quantities for two students:</i> <ul style="list-style-type: none"> • 1 nest of rice noodles • 1 lime • 2 tbsp soy or fish sauce • 1 tsp soft brown sugar • A selection of suitable vegetables that can be eaten raw 	<i>Quantities for two students:</i> <ul style="list-style-type: none"> • 50g bulgur wheat • 1 pepper • A selection of suitable vegetables that can be eaten raw • 2 tbsp feta cheese • 1 lemon • Fresh herbs such as parsley, chives, mint or basil • Olive oil 	<i>Quantities for two students:</i> <ul style="list-style-type: none"> • ¼ cauliflower • A range of spices and herbs • Olive oil • ½ apple • 1 large tomato • ¼ red onion • ½ carrot
Method 	<ol style="list-style-type: none"> 1. Place the noodles in a mixing bowl and cover with boiling water. 2. Leave to stand for 4 minutes. 3. Drain and cool the noodles down. 4. Prepare the vegetables for the salad using the peelers and graters. 5. Make the dressing by combining the soy sauce, sugar and lime juice. 6. Combine the noodles, vegetables and dressing together and mix with your hands. 7. Taste and modify if needed. 	<ol style="list-style-type: none"> 1. Place the bulgur wheat in a mixing bowl and cover with boiling water (just over the top). 2. Leave to stand for 10 - 15 minutes. If all the water has not been absorbed, drain in a colander. 3. Remove the seeds from half a pepper and place in the oven at 200°C for 10 minutes. 4. Prepare the vegetables for the salad using the peelers and graters. 5. Add 1 tbsp of olive oil and a squeeze of lemon juice to the salad and mix. 6. Once the peppers are cool, fill with the salad mixture. 7. Top with feta and fresh herbs. 	<ol style="list-style-type: none"> 1. Cut the cauliflower into florets. 2. Mix together 1 tbsp olive oil with spices and a good pinch of salt. 3. Dip the cauliflower in the spice mix and place on a baking tray. 4. Roast the cauliflower in the oven at 200°C for approximately 10 - 15 minutes until golden. 5. Make the dip by grating the tomato, apple, carrot and onion and combining. 6. Add a pinch of salt and pepper and serve.

Point of explanation:

Y3 Food and Nutrition – Block D





Core Knowledge	Explanation
nutrition	Nutrition is the process by which living things receive the food necessary for them to grow and be healthy.
fibre	Fibre is a part of food that cannot be broken down by the body and aids digestion by helping other foods move through the body more quickly.
minerals	Minerals are substances that are naturally present in the earth and are not formed from animal or vegetable matter, for example gold and salt. Some minerals are also present in food and drink and in the human body and are essential for good health.

Technical Vocabulary	Definition
seasoning	salt, herbs or spices added to food to enhance its flavour
claw	a way of holding food to protect the fingers whilst cutting, chopping or slicing
bridge	a technique used when chopping food where the thumb and index finger are placed either side of the food item, forming a kind of bridge shape

Link to Video: https://vimeo.com/651112127/34e20ccbcc
<ul style="list-style-type: none"> • Explanation and demonstration of taught content • Lesson by lesson guidance • Exemplification of techniques and outcomes





Point of delivery:

Y3 Food and Nutrition – Block D

Revisiting prior learning 	Taught content 	Point of practice 	Point of reflection 
<p>1. Explain that vegetables contain vitamins and minerals that the body needs</p> <p>Explain that cooking vegetables makes them less nutritious and eating raw vegetables is better for us</p> <p>Prepare vegetables by slicing, chopping, grating and ribboning</p>	<p>Explore how food benefits the body and mind</p> <p>Explore how to adapt the flavour of food</p> <p>Evaluate outcomes</p>	<p>Introduce pupils to the Knowledge Note and key vocabulary for this unit. Discuss the key question: How does food affect your body and mind? Refer pupils back to previous food and nutrition sessions where they were introduced to the importance of vitamins. Use questioning to establish pupils' recall and level of understanding about the role vitamins play in our diet. Discuss what food does for our bodies (helps our immune system, gives us energy, helps the body to grow and repair, aids concentration). How do they think they would feel if they only ate one kind of food every day?</p> <p>Introduce pupils to rice noodles and demonstrate how they are prepared, challenging pupils to compare their texture and appearance before and after soaking in hot water. Revisit using the claw method and use the techniques of slicing, ribboning, grating and tearing to prepare a range of vegetables to create a mixed salad, reminding pupils of the importance of eating vegetables of a variety of colours. Pupils then make a dressing using a combination of flavours: sweet (brown sugar), sour (lime), salty (soy sauce) and spicy (chilli).</p> <p>Once the salad, dressing and cooled rice noodles have been combined, allow pupils to taste and encourage them to describe the flavours and textures and make suggestions about how they might alter the taste. Pupils record the processes, skills and their evaluative comments in portfolios.</p>	<p>Can recognise that good nutrition keeps the body healthy, provides energy and helps the body to repair</p> <p>Can identify some foods that are a good source of vitamins</p> <p>Can use the claw method to cut food safely</p> <p>Can identify different flavours such as salty, sweet and sour, and can begin to suggest ways that the taste of food can be changed</p> <p>Can suggest ways in which a dish can be improved</p>
<p>2. Explore how food benefits the body and mind</p> <p>Revisit the importance of vitamins and foods that are a good source of these nutrients</p> <p>Revisit and practise knife skills and the bridge technique</p> <p>Explore how to adapt the flavour of food by seasoning</p>	<p>Recognise the importance of fibre and how it aids digestion</p> <p>Identify foods that are high in fibre such as wholegrains</p> <p>Identify flavours and suggest ways in which flavours can be adjusted</p>	<p>Recap on the skills and concepts covered in the previous lesson. Explain the importance of fibre in our diet and how it helps to keep our digestive system healthy. Give examples of foods that contain higher levels of fibre and explain what makes wholegrains so good for our digestion.</p> <p>Introduce pupils to bulgur wheat, an edible cereal made from cracked wheat. Cover the bulgur wheat with a small amount of boiling water, explaining to pupils that the purpose of the water is to hydrate the wheat.</p> <p>Prepare the pepper, revisiting the bridge hold which pupils have been introduced to in previous units. Ask pupils how they think the peppers will change after being roasted in the oven.</p> <p>Pupils then practise the skills of cutting, finely slicing and grating a range of vegetables which they add to the bulgur wheat. Once lemon juice, olive oil and pomegranate seeds are added, they fill the cooked peppers with the mixture. Encourage pupils to taste and add feta for saltiness if needed. Prompt pupils to describe the textures and flavours and challenge them to identify which of the ingredients provide a bitter, sour and sweet taste.</p> <p>Pupils evaluate their dishes, making a record of their thoughts in their portfolios. They then complete Vocabulary Task 1.</p>	<p>Can explain why fibre is important for health</p> <p>Can identify foods that contain fibre</p> <p>Can use the bridge technique effectively</p> <p>Can slice and grate vegetables and fruit with accuracy and control</p> <p>Can identify which ingredients provide specific flavours and make suggestions about how to adjust flavours in a dish</p>

Point of delivery:

Y3 Food and Nutrition – Block D

Revisiting prior learning 	Taught content 	Point of practice 	Point of reflection 
<p>3. Recognise the importance of fibre and how it aids digestion</p> <p>Identify foods that are high in fibre such as wholegrains</p> <p>Revisit and practise the bridge technique</p> <p>Revisit and practise knife skills and grating</p> <p>Identify flavours and suggest ways in which flavours can be adjusted</p> <p>Make a marinade</p>	<p>Identify a range of spices and use them to season food</p> <p>Describe how the texture and taste of food can be changed or enhanced by using seasoning, by roasting and by marinating</p> <p>Evaluate outcomes, state preferences and make suggestions about how flavours could be changed or improved</p>	<p>Refer pupils back to the key question for the unit: How does food affect your body and mind? Discuss the link between physical and mental health.</p> <p>Through questioning and discussion, elicit pupils' recall and understanding of the nutritional value of the foods they have worked with over the past two lessons. If time allows, pupils could conduct further research to identify the foods they should include in or remove from their diet to boost their immunity, improve their concentration or give them energy etc.</p> <p>Explain that pupils are going to create a dish using cauliflower, a vegetable rich in fibre, and demonstrate how to separate the florets. Encourage pupils to taste the raw cauliflower and describe the flavour and texture. Provide a range of spices for pupils to sample and allow them to make their own selection to add to olive oil to make a marinade. Add salt to the marinade, which could prompt a discussion about how processed food contains high levels of salt and should not form the basis of our diet. Adding small amounts of salt, however, to fresh ingredients is not unhealthy.</p> <p>Once the cauliflower is coated in the marinade, challenge pupils to predict how the cauliflower will change once roasted. Pupils then prepare the tomatoes, onion, carrot and apple by grating them to make the dip, tasting and adjusting the seasoning as they go.</p> <p>Once the dish is complete, prompt pupils to sample what they have made and describe the flavours and textures. Can they describe how the marinated roasted cauliflower compares with the raw cauliflower they tasted earlier in the lesson?</p> <p>Using photos, drawings and annotations, pupils make a record in their portfolios of what they have created and learnt, together with their evaluative comments.</p> <p>Finally, pupils complete Vocabulary Task 2.</p>	<p>Can identify foods that contain vitamins and fibre</p> <p>Can name some spices and describe their flavour, stating preferences</p> <p>Can explain the effects of marinating and roasting</p> <p>Can explain what caramelisation means and how it affects the flavour and texture of food</p> <p>Can state preferences about the food they have made and suggest ways in which flavours could be changed or improved</p>

Questions for assessment

Are all vegetables better for us eaten raw?

Why does the body need vitamins daily?

How would your body and mind feel if you ate only cheese sandwiches every day?

Why are peppers a good choice of vegetable to eat?

Will the pepper look, feel and taste the same before and after cooking?

What could you use to make food taste sweet, sour or salty?

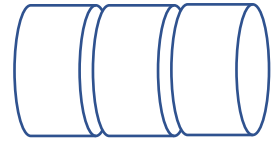
Does adding sugar or salt to food make it unhealthy?

What is the purpose of the marinade?

What changes would you make to your final dish and why?

Oracy and Vocabulary: Y3 Food and Nutrition – Block D

Task 1:
Sort these nouns from the thinnest to the thickest.



sliver chunk slice block hunk

How could you sort these adjectives?

sour sweet acidic
zesty unsavoury briny
sharp salty sugary

Exploration:



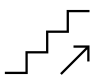
1. What is the difference between a sliver and a slice?
2. Is ribboning the same as slicing finely?

Task 2:

Work with a partner to answer these questions about the dishes you have made.



Explain the steps you completed and the techniques you used to make the stuffed pepper.



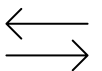
Explain how the cauliflower changed once it was marinated and roasted.



Explain which dish you are most pleased with and why.



Explain which dish you were least pleased with. What would you do differently if you made the dish again?



Tell a partner about three key things you have learnt in these lessons.

3

Vocabulary: Y3 Food and Nutrition – Block D

OWN-it	Analyse
<p>Change this noun to a verb.</p> <p style="text-align: center; font-size: 1.2em; margin-top: 20px;">seasoning</p>	
<p>Underline the root word.</p> <p style="text-align: center; font-size: 1.2em; margin-top: 20px;">saltiness</p>	
<p>Underline the part of this word that means <i>the most</i>.</p> <p style="text-align: center; font-size: 1.2em; margin-top: 20px;">sweetest</p>	

KNOW-it	Define						
<p>Write another meaning of the word <i>season</i>.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0; min-height: 20px;">to use herbs and spices to add flavour to food</div> <div style="border: 1px solid black; padding: 5px; margin: 5px 0; min-height: 20px;"></div>							
<p>Why is the <i>bridge</i> technique used in cooking? Tick one.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">to chop food safely</td> <td style="width: 50px;"></td> </tr> <tr> <td style="padding: 5px;">to chop food quickly</td> <td></td> </tr> <tr> <td style="padding: 5px;">to chop food evenly</td> <td></td> </tr> </table>		to chop food safely		to chop food quickly		to chop food evenly	
to chop food safely							
to chop food quickly							
to chop food evenly							
<p>Tick true or false.</p> <p>Minerals are substances that are essential for good health.</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; border-radius: 10px; padding: 5px 15px; text-align: center;">true</div> <div style="border: 1px solid black; border-radius: 10px; padding: 5px 15px; text-align: center;">false</div> </div>							

LINK-it	Connect						
<p>Tick two words associated with the word <i>nutrition</i>.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="padding: 5px; text-align: center;">diet</td> <td style="width: 50px;"></td> </tr> <tr> <td style="padding: 5px; text-align: center;">starve</td> <td></td> </tr> <tr> <td style="padding: 5px; text-align: center;">nourish</td> <td></td> </tr> </table>		diet		starve		nourish	
diet							
starve							
nourish							
<p>Circle the odd one out.</p> <p style="text-align: center; font-size: 1.2em; margin-top: 20px;">fibre minerals seasoning</p>							
<p>Write a word that means the opposite of <i>acidic</i>.</p> <div style="border: 1px solid black; border-radius: 10px; height: 40px; margin-top: 10px;"></div>							

USE-it	Use in context
<p>Complete this sentence.</p> <p>Wholegrains are good for the body because ...</p> <div style="border-bottom: 1px solid black; height: 20px; margin-top: 5px;"></div>	
<p>Tick the sentence if the word <i>seasoning</i> has been used correctly.</p> <p>Mix the lemon juice and <i>seasoning</i> with yoghurt to make the dip.</p> <div style="text-align: right; margin-top: 5px;"> <input style="width: 40px; height: 20px;" type="checkbox"/> </div>	
<p>Write a sentence using the words <i>safely</i>, <i>slice</i> and <i>claw</i>.</p> <div style="border-bottom: 1px solid black; height: 20px; margin-top: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-top: 5px;"></div>	

Knowledge Note:

Y3 Food and Nutrition – Block D

Year 3: Food and Nutrition

How does food affect your body and mind?



Core content:

Explore the nutritional value of food and its effect on our physical and mental health. Practice methods for preparing vegetables to create different dishes. Learn how to change the texture and flavour of food by roasting and adding herbs and spices.

Technical vocabulary:

Fibre – the part of food that cannot be broken down by the body and aids digestion.



Nutrition – the process by which living things receive the food necessary for them to grow and be healthy.



Minerals – substances present in food and drink and in the human body which are essential for good health.



Seasoning – salt, herbs or spices added to food to enhance its flavour.



Claw – a way of holding food to protect the fingers whilst cutting, chopping or slicing.



Bridge – a technique used when chopping food where the thumb and index finger are placed either side of the food item, forming a kind of bridge shape.



Techniques:



claw



roasting



bridge

Year 3: Food and Nutrition

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Techniques:



claw



roasting



bridge

Exemplification: Y3 Food and Nutrition – Block D

How does food affect your body and mind?

Use questioning to ascertain pupils' recall of the role vitamins and minerals play in keeping healthy

Make links between physical and mental health

Pose questions to pupils:

How would you feel if you ate the same food every day?

Why is it important to eat vegetables of a variety of colours?

Pupils practise their knife skills to prepare different vegetables and then experiment with adding flavours to their noodle salad

Pose questions to pupils:

What is seasoning?

What can you use to change the flavour of your food?

How could you make the food sweeter, saltier or more sour?

Y3 FOOD and Nutrition

How does food affect your body and mind?

Some vitamins and minerals help concentration

When I have more energy I feel happier

Vitamins boost immunity

Food gives us energy

Fibre helps digestion

Good nutrition helps the body grow and repair

We should eat vegetables of different colours.

1. Noodle salad:

- crunchy
- citrus
- tangy

Soak rice noodles, slice, ribbon and grate vegetables. Make dressing using different flavours: Sweet, Salty, Sour, Spicy

I would use less sugar in the dressing.

I like the colours and textures.

2. Stuffed pepper:

- egg
- egg
- egg
- egg
- bulgur
- wheat
- cereal
- cracked wheat
- wholegrains help digestion

I used pomegranate seeds to add sweetness and colour to my stuffed pepper.

3. Roasted Cauliflower:

- flour
- source of fibre
- cauliflower
- on crunchy
- on bitter
- on sweeter when it has caramelised in the oven

Food browns and sweetens

caused by natural sugars or golden colour

Improvements I would make:

Noodle Salad: I found the flavour slightly too sweet so I would add less sugar to the dressing next time.

Stuffed pepper: I did not like the texture of the pomegranate seeds so I would not use those next time. I could add more grated apple for sweetness.

Roasted cauliflower: I preferred the taste of onion and would use more of this in the marinade next time.

Techniques I have learnt...

I have learnt different knife skills and used these to prepare vegetables in different ways. I found the claw technique tricky.

Pose questions to pupils:

Can you remember what caramelised means?

What effect does caramelisation have on food?

How does it change the flavour?

Encourage pupils to use appropriate vocabulary to describe the flavours and textures of their food and experiment with ways of modifying flavours using herbs and spices

Prompt pupils to evaluate their meals and explain their preferences in terms of the appearance, texture and taste

Ask pupils to explain what they have learnt and which skills they felt confident with and which they need to improve