# Design and Technology – Year 6

## Content- Food- Celebrating culture and seasonality

## Big Question: How does market research support recipe design?

| NC objectives - **areas of study** | End point of area of study | Vocabulary | | |
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| | | Basic | Adventurous | Technical |
| 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 create 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:<br><br>-Understand and apply the principles of a healthy and varied diet.<br>-Prepare and cook a variety of predominately-savoury dishes using a range of cooking techniques.<br>-Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.<br>-Use research to develop design criteria to inform designs of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.<br>-Generate, develop, model and communicate their ideas through discussion, annotated sketches, | **Food**<br>They can understand how key chefs have influenced eating habits to promote varied and healthy diets.<br><br>Children can identify a range of cooking techniques and skills used in cooking and can use when creating their product- mixing, kneading, combining, folding, rubbing in etc.<br><br>Children will compare the seasonality of foods and cultural foods.<br><br>Children will be able to consider dietary requirements of their intended users and how to meet them when designing their products.<br><br>They can demonstrate how to use appropriate utensils for their dishes and use them hygienically and safely.<br>Children know how to use utensils and equipment including heat sources to prepare and cook food<br>Children know some chefs who have influenced eating habits to promote varied and healthy diets.<br>Children know and use sensory and technical vocabulary to describe existing products and their own. (Tier 3 vocabulary list) | sprinkle, whisk, beat, roll out, shape, crumble | Aesthetics,<br>Desirable<br>Alluring<br>Aroma | Nutrition<br><br>Allergy<br><br>Intolerance<br><br>Halal<br><br>dietary requirements |

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| cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.<br>-Select from and use a wide range of ingredients according to their functional properties and aesthetic qualities.<br>-Investigate and analyse a range of existing products.<br>-Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.<br>-Understand how key events and individuals in design and technology have helped shape the world. | | | | |

## Knowledge

### Substantive Knowledge

Food- concepts- Authenticity and Innovation

**Lesson 1:**

**LO: To know how to evaluate savoury dishes and know their nutritional value.**

**Vocabulary: nutrition, desirable, aroma**

(Retrieval- What foods are healthy? What is a balanced and healthy diet. Link to knowledge from years 3 and 4.)

Children to evaluate a range of burgers and discuss the ingredients that have been used. Children to discuss whether burgers can be healthy and make links to seasonality ingredients that have been used. (Retrieval year 5)

Encourage use of sensory vocabulary to discuss taste, appeal, aroma and texture.

### Disciplinary Knowledge

**Each lesson: Tell chn-** Explain to the children that today they are going to be chefs and their role is to create a savoury dish that includes cultural preferences for their user. Their role is to think about the different cooking techniques needed to create a dish but also the additional ingredients to add flavour, texture, aroma and appearance. Children may include information regarding dietary requirements and conduct research to support the creation of design brief, criteria and specification.

Throughout the unit, children will draw upon other subject disciples such as

**Science** – properties of materials and changes of state.

**Mathematics** – measuring mass kg/g. Understand and use approximate equivalences between metric and imperial units.

**Spoken language** – new technical vocabulary and developing relevant vocabulary including sensory descriptors. Give well-structured explanations.

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| **Lesson 2:**<br>**LO: To understand how food products can meet dietary and cultural requirements.**<br>**Vocabulary: allergy, intolerance, halal, dietary requirements**<br>Children to learn about different ingredients can be used to meet the needs of a range of users. Discuss how some users may have allergies, are vegan or vegetarian. Think about how some cultures may not eat certain foods. Children to understand the importance of considering users opinions and taste preferences. This may include children evaluating burgers with dietary and cultural requirements- how do the products still have the taste of a burger? What ingredients have been used? What the substitutes?<br><br>Discuss design brief and children to be set the homework of researching taste preferences of a family member ready for the design process in the following lesson.<br>Consider how food can be adapted to reflect requirements for different cultures, e.g. halal (others, beyond)<br><br>**Lesson 3:**<br>**LO: To understand how sensory evaluation can support the designing and making process of a product.**<br>**Vocabulary: aesthetics, alluring**<br>Children to use sensory evaluation to taste a range of sauces, burgers and bread types to support their design. Children carry out sensory evaluations of a variety of existing food products and ingredients relating to the project. The ingredients could include those that could be added to a basic recipe such as herbs, spices, vegetables or cheese. These could be locally sourced, seasonal, Fair Trade or organic. Present results in e.g. tables/graphs/charts and by using evaluative writing.<br><br>**Lesson 4:** | **Mathematics and computing** – making use of mathematical and computing skills to present results of sensory evaluations graphically, handling and interpreting data. They will measure mass using kg/g and understand and use approximate equivalence of metric and imperial units.<br>**Science** – using and developing skills of observing, questioning, changing state of ingredients. They will recognise the impact of diet on the way their bodies function.<br>**Geography** – distribution of natural resources i.e. food.<br>**Computing** – use technology purposefully to retrieve digital content.<br>**Mathematics** – measurement of mass kg/g; understand and use approximate equivalence of metric and imperial units.<br>**Art-** Use of developing drawings and designs.<br><br>Children to follow the four aspects of Design and Technology- research, design, make and evaluate whilst building upon technical knowledge to make their finished product. |

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| **LO: To know how to design a savoury dish and understand how the product celebrates culture.**<br>**Vocabulary: Halal, dietary requirements**<br>Develop a design brief and simple design specification with the children within a context that is authentic and meaningful. This can include design criteria relating to nutrition and healthy eating. Discuss the purpose of the products that the children will be designing, making and evaluating and who the products will be for. Ask children to generate a range of ideas encouraging innovative responses. Agree on design criteria<br>that can be used to guide the development and evaluation of the children's product. Using annotated sketches, discussion and information and communication technology if appropriate, ask children to develop and communicate their ideas. Ask children to record the steps, equipment, utensils and ingredients for making the food product drawing on the knowledge, understanding and skills learnt throughout the unit.<br>To celebrate personal creativity while considering which cultures the design is appropriate for. (self, others, beyond)<br><br>**Lesson 5:**<br>**LO: To know how to plan a food product and know the utensils and ingredients they will need.**<br>**Vocabulary: crumble, whisk, sprinkle, beat, roll out, shape**<br>Children to make burgers and use the correct utensils and heat sources throughout. Children to articulate how their product meets the design brief and draw upon practical knowledge taught across each year group.<br><br>**Lesson 6:**<br>**LO: To understand how to make and evaluate a savoury food product.**<br>**Vocabulary: All**<br>Evaluate the work as it progresses and the final product against the intended purpose and user reflecting on the design specification previously agreed.<br><br>Authenticity/Innovation | |

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| Pupils in Y6 develop a range of savoury dishes within a **mini-enterprise context**. They **visit** a local supermarket which commissions them to develop a new range of cultural products suitable for primary-aged children. Pupils carry out **market research** using existing food products to identify the preferences of their target group.<br>They establish design criteria that specify the taste, texture, appearance and aroma of their products, how they will form part of a healthy, varied diet and how they will offer good value for money and hit cultural/dietary preferences. They **pitch** the range of products to **representatives** from the supermarket and modify their recipes on the basis of feedback. | |

## Concepts

| Functionality | Authenticity | Innovation | Significance |
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| | Carry out projects that are real and meaningful to them and others.<br>• Work within a range of relevant contexts, ranging from domestic to industrial. | When designing and making, pupils need some scope to be original with their thinking.<br>Projects that encourage innovation lead to a range of design ideas and products being developed and are characterised by | |

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| | • Work towards realistic and credible outcomes that can be evaluated in use.<br>• Engage in activity that mirrors design and technology in the wider world.<br>• Create products with a genuine purpose and for a real user.<br>• Create products which need to work in some way in order to be successful. | engaging open-ended starting points for learning.<br>Demonstrate some originality when designing and making.<br>Learn how to take creative risks.<br>Understand the meaning of 'innovation' within design and technology.<br>Understand how innovation is an important part of the process of designing and making products. | |

## ASSESSMENT

**KNOW MORE, REMEMBER MORE, DO MORE...**

In this unit of learning, progress has been made when a learner knows more. This 'distance travelled' from the starting point is evidenced through them remembering more and doing more: in books, low stakes quizzes, retrieval, use of mind maps, answering the big question and being able to feel more confident about this unit.