

Our Intent is: To support our pupils in answering the question, "How do we design, make and evaluate solutions to real and relevant problems?" Using creativity and innovation, we inspire pupils to develop skills which impact on daily life.



Forton Primary School Design and Technology

Clougha Class
Autumn 1
Year B

Key Concept: Food

Focus

Healthy and varied diet

Key Question: What do you need to stay healthy and grow?

N.C. LINKS:

When designing and making, pupils should be taught to: **Design**

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
- **Make**
- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities
- **Evaluate**
- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world
- **Technical knowledge**
- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]

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	<ul style="list-style-type: none"> • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • apply their understanding of computing to program, monitor and control their products
<p>Unit Overview: To design a healthy snack using a range of ingredients and preparation techniques.</p>	<p>Vocabulary:</p> <p>name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury</p> <p>hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet</p> <p>planning, design criteria, purpose, user, annotated sketch, sensory evaluations</p>
<p>Possible Outcome:</p> <p>sandwiches wraps rolls pitta pockets blinis rice cakes toasties snack bar salad snacks</p>	
<p>Intended User:</p> <p>themselves older children younger children parents grandparents friends family visitors</p>	
<p>. Building on Prior learning KS1:</p> <ul style="list-style-type: none"> • Experience of common fruit and vegetables, undertaking sensory activities i.e. appearance taste and smell. 	<p>Building on Prior learning when A follow B:</p> <p>Know some ways to prepare ingredients safely and hygienically.</p> <ul style="list-style-type: none"> • Have some basic knowledge and understanding about healthy eating and <i>The Eatwell plate</i>.

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- Experience of cutting soft fruit and vegetables using appropriate utensils.

- Have used some equipment and utensils and prepared and combined ingredients to make a product.

Key Skills (Disciplinary)

Designing

- Generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose.
- Use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas.

Making

- Plan the main stages of a recipe, listing ingredients, utensils and equipment.
- Select and use appropriate utensils and equipment to prepare and combine ingredients.
- Select from a range of ingredients to make appropriate food products, thinking about sensory characteristics.

Evaluating

- Carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs.
- Evaluate the ongoing work and the final product with reference to the design criteria and the views of others.

Technical knowledge and understanding

- Know how to use appropriate equipment and utensils to prepare and combine food.
- Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught.
- Know and use relevant technical and sensory vocabulary appropriately.

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Sequence of Lessons:

1. Investigative and Evaluative Activities (IEAs)

- Children investigate a range of food products e.g. the content of their lunchboxes over a week, a selection of foods provided for them, food from a visit to a local shop. Link to the principles of a varied and healthy diet using *The eatwell plate* e.g. *What ingredients have been used? Which food groups do they belong to? What substances are used in the products e.g. nutrients, water and fibre?*
- Carry out sensory evaluations on the contents of the food from e.g. a variety of bought food products such as a range of wraps or sandwiches. Record results, for example using a table. Use appropriate words to describe the taste/smell/texture/appearance e.g. *How do the sensory characteristics affect your liking for the food?*
- Gather information about existing products available relating to your product. Visit a local supermarket and/or use the internet.
- Find out how a variety of ingredients used in products are grown and harvested, reared, caught and processed e.g. *Where and when are the ingredients grown? Where do different meats/fish/cheese/eggs come from? How and why are they processed?*

2. Focused Tasks (FTs)

- Learn to select and use a range of utensils and use a range of techniques as appropriate to prepare ingredients hygienically including the bridge and claw technique, grating, peeling, chopping, slicing, mixing, spreading, kneading and baking.
- Food preparation and cooking techniques could be practised by making a food product using an existing recipe.
- Discuss basic food hygiene practices when handling food including the importance of following instructions to control risk e.g. *What should we do before we work with food? Why is following instructions important?*

3. Design, Make and Evaluate Assignment (DMEA)

- Discuss the purpose of the products that the children will be designing, making and evaluating and who the products will be for.
- Develop and agree on design criteria with the children within a context that is authentic and meaningful. This can include criteria relating to healthy eating and a varied diet e.g. *What do you need to consider to make it part of a balanced diet? How do we select the ingredients? How could we make it appealing to eat?*
- Ask children to generate a range of ideas encouraging realistic responses.
- Using discussion, annotated sketches and information and communication technology if appropriate, ask the children to develop and communicate their ideas.

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- Ask children to consider the main stages in making the food product, before preparing/cooking the product including the ingredients and utensils they will need.
- Evaluate as the assignment proceeds and the final product against the intended purpose and user, reflecting on the design criteria previously agreed. Consider what others think of the product when considering how the work might be improved.

Enhancements:

Visit to Pizza Express

End of Unit Outcome:

A balanced and healthy snack.