

Whitefield Primary School - Long Term Curriculum Overview - Key Stage 2

**DT - Year 4**

All DT should follow 4 stages:

- RESEARCH - artists, designers, make notes, take photos, explore likes, dislikes, (this will inspire own ideas)
- DEVELOP OWN IDEAS - practise skills and own ideas, try things out
- MAKE FINAL IDEA
- EVALUATE - successes? changes ? improvements?

	Autumn 1 DT	Autumn 2	Spring 1 DT	Spring 2	Summer 1 DT	Summer 2
Year 4	<p><u>LC - How Can Usain Bolt Move So Quickly?</u></p> <p><b><u>Food</u></b></p> <p>Look at proteins and pulses. Use ASDA recipe -Spicy Baked Falafel</p> <p><b><u>RESEARCH AND KNOWLEDGE</u></b> Show class a range of different pulses (beans, lentils and peas) They can be fresh, dried or canned.</p> <p>Explain that a pulse is an edible seed which grows in a pod.</p> <p>Challenge the children to identify them:</p> <ul style="list-style-type: none"> <li>• baked beans</li> <li>• red/brown/green/yellow lentils</li> <li>• garden peas</li> </ul>		<p><u>LC - Is Plastic Fantastic?</u></p> <p><b><u>Structures- shell structures</u></b></p> <p>Shell Structures Design, make and evaluate a gift box for a family member. Use recycled materials.</p> <p>Use Projects on a page Y3/4 - Shell Structures</p> <p><b><u>RESEARCH AND KNOWLEDGE</u></b> Research and investigate a collection of different shell structures including packaging. take pictures of different items and discuss. What is the purpose of the shell structure?</p>		<p><u>LC - How Could We Cope Without Electricity?</u></p> <p><b><u>Electrical Systems</u></b></p> <p>Simple circuits and switches Make a torch to be used on an overnight field trip.</p> <p>Use Projects on a page Y3/4 - Electrical systems</p> <p><b><u>RESEARCH AND KNOWLEDGE</u></b> Investigate and research a range of battery powered torches.</p> <p>Questions to consider when observing the products: Where this product would be used? Why would it be used? What features does this product have?</p>	

<ul style="list-style-type: none"> <li>• runner beans</li> <li>• chickpeas</li> <li>• broad beans</li> <li>• kidney beans</li> <li>• butter beans</li> </ul> <p>Discuss which ones have been eaten before and when. What types of food contain pulses? (soups, stews, pies) Name some dishes which contain pulses.</p> <p>Look at the eatwell plate and identify the food group that pulses belong in. (Meat, fish, eggs, beans and other sources of protein) What main nutrient is provided by these foods? <b>PROTEIN</b></p> <p>Emphasise the importance of this in the diet of those who choose not to eat meat.</p> <p>Focus on chickpeas in this recipe.</p> <p>Research chickpeas in Middle Eastern, Mediterranean and Indian cooking. Find dishes which include chickpeas such as hummus, salads, curry, veggie burgers and falafel.</p> <p>Explain falafel is a Middle Eastern dish served with pitta bread and salad.</p> <p>Research falafel, try some and</p>	<p>Is it for protection, containment, presentation? What material is it made from? How has it been constructed? Has it been stiffened or strengthened? How? By folding, is it corrugated, has it been laminated or is it ribbed? Are the materials recyclable or reusable? What size/shape/colour is it? What information does it show? Is the design attractive? To who? Take photos and annotate in sketchbook.</p> <p>Take a package apart and identify and discuss parts of a net including the tabs. Discuss the different faces of the package and how the tabs join the edges of the net?</p> <p>Research existing products to determine which are the most effective. Which shell structures are suited for their purpose and user? Discuss use of colour, graphics, logos, fonts,</p>	<p>How does it work? Is it controlled manually or by a computer? What materials have been used? Why have certain materials been used? Is its design suited for its user? How?</p> <p>Remind children of the importance of safety when using electricity.</p> <p>Look at different switches: push- to- make switches push-to-break switches toggle switches Investigate them in different circuits and how they work.</p> <p><b><u>DEVELOP OWN IDEAS</u></b> Practise skills and ideas by trying things out.</p> <p>Recap making simple series circuits using batteries, switches, bulbs and buzzers.</p> <p>Which are input devices (switches) and which are output devices? (bulbs and buzzers)</p>	
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

<p>identify other ingredients in the product.</p> <p>Record responses in DT book, through pupil voice, video clips and photos. Use Seesaw to record research and investigations.</p> <p><b><u>DEVELOP OWN IDEAS</u></b> Practise skills and try things out. Look at the list of ingredients needed to make falafel and the utensils that will be used.</p> <p>Before cooking explain the importance of safety, following instructions and hygiene.</p> <p>Demonstrate how to prepare the falafel ingredients. Peel and chop an onion safely and efficiently - refer to demonstration leaflet.</p> <p>Show children how to prepare garlic and the use of a garlic crusher.</p> <p>Demonstrate how to use a blender safely or mash the chickpeas with a potato masher or crush in a bag with a rolling pin.</p> <p>Demonstrate how to add the remainder of the ingredients and shape into small balls with wet hands to avoid it sticking.</p>	<p>express preferences and why. Identify packaging suitable for purpose and user. Record all observations in sketchbook.</p> <p><b><u>DEVELOP OWN IDEAS</u></b> Practise skills and ideas by trying things out.</p> <p>Construct nets from flat faces out of card. Practise joining with masking tape to make a 3D shape. Practise assembling nets in different ways and record work and comments.</p> <p>Practise different techniques e.g. cutting, scoring and joining using pre-drawn nets.</p> <p>Practise assembling a simple box. Demonstrate cutting out a window and attaching an acetate sheet.</p> <p>Practise different ways of stiffening/ strengthening structures e.g. folding, corrugating, ribbing, laminating</p> <p>Try different graphic</p>	<p>Draw diagrams in DT book and annotate components and the input/output devices of the circuits made.</p> <p>Discuss faults in circuits, identify them and how to correct them. Why won't bulbs light in circuits? What could the fault be? How can it be fixed?</p> <p>Practise making circuits with switches using simple classroom materials e.g. card, corrugated plastic, foil, paper fasteners, paper clips</p> <p>Try operating the switches in different ways: when pressed when turned when moved from side to side</p> <p>Discuss short circuits and how to avoid making them.</p> <p>Record investigations in DT book and on Seesaw</p> <p><b><u>MAKE FINAL IDEA</u></b> Develop a design brief for own product. What is its use and for who? A torch to be used on a school overnight trip.</p> <p>Make annotated sketches to communicate ideas for the design.</p>	
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

<p>Lightly brush with oil and place on a lined baking tray.</p> <p>Cook in the oven for 10-15 minutes until crisp and golden.</p> <p>Make a dip to accompany using yogurt and cucumber mixed.</p> <p style="text-align: center;"><b><u>MAKE FINAL IDEA</u></b></p> <p>With supervision and recipe make spicy baked falafel accompanied by a yogurt and cucumber dip and pitta bread.</p> <p>Record steps through photos and evaluate as the process continues.</p> <p style="text-align: center;"><b><u>EVALUATE</u></b></p> <p>Describe the appearance, smell, taste and texture of the finished product.</p> <p>Record observations in DT book using correct and appropriate vocabulary.</p> <p>Discuss spices used and consider use of other spices and herbs in the recipe.</p> <p>Discuss how the finished product might be served.</p> <p>Discuss whether they liked the falafel and explain opinions.</p>		<p>techniques and media for appearance of products.</p> <p style="text-align: center;"><b><u>MAKE FINAL IDEA</u></b></p> <p>Develop a design brief for own product. What is its use and for who?</p> <p>Make annotated sketches and prototypes of designs. List tools, materials and equipment needed. Construct product working with accuracy and skills practised.</p> <p style="text-align: center;"><b><u>EVALUATE</u></b></p> <p>Evaluate throughout the design and the final product.</p> <p>Does the final product match the intended purpose and the user.</p> <p>How closely did it follow the original design brief?</p> <p>What changes were made?</p> <p>Is there anything you would do differently next time?</p> <p>Record comments in sketchbook and on Seesaw. Take photos of final product and review.</p>		<p>Assemble the product, test carefully and modify if needed to complete the project. Record steps in the process of making.</p> <p style="text-align: center;"><b><u>EVALUATE</u></b></p> <p>Evaluate throughout the design and the final product.</p> <p>Identify the strengths in the completed product and suggest any areas for improvement. Where any parts of the design modified? Why?</p> <p>Use technical vocabulary in evaluations and record responses showing correct use of appropriate vocabulary.</p>	
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

<p>Discuss when they might eat this recipe and what they might eat them with for different meals e.g. for a picnic, evening meal, lunch box etc</p> <p>How would they be different depending on which meal they were eating?</p> <p>What other dressings could accompany the falafel?</p>					
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	--	--	--