

Yearly Overview

Subject: DT

Year Group: 4

DT Primary - Project on a page	Autumn 1	Spring 2	Summer 2
Unit of work	Food - Healthy and varied diet https://drive.google.com/file/d/1IYOkfslly-Ak0_S8bMAzfwmRkXrCPOYS/view?usp=sharing	Textiles - 2-D shape to 3-D product https://drive.google.com/file/d/1NXoki24bup_3JMAt6RCsvDYQAH9Ekvih/view?usp=sharing	Electrical Systems - Simple circuits and switches https://drive.google.com/file/d/13Cs1LtgNTtRkK2Pk1St4wN_XLGunrwD2/view?usp=sharing
NC Objectives (Linked to Programme of Study)	<p>The national curriculum for design and technology aims to ensure that all pupils:</p> <ul style="list-style-type: none"> • develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world • build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users • critique, evaluate and test their ideas and products and the work of others • understand and apply the principles of nutrition and learn how to cook. 		
Project title	Healthy snack Design, make and evaluate a healthy snack (product) for the family (user) for a picnic (purpose)	Purse / Wallet/ Bag Design, make and evaluate a purse/wallet/bag (product) for myself(user) to store money or objects (purpose)	Nightlight Design, make and evaluate a nightlight (product) for myself (user) for my bedroom (purpose)
Prior Knowledge	<ul style="list-style-type: none"> • Know some ways to prepare ingredients safely and hygienically. • Have some basic knowledge and understanding about healthy eating and The Eatwell Plate. • Have used some equipment and utensils and prepared and combined ingredients to make a product. 	<ul style="list-style-type: none"> • Have joined fabric in simple ways by glueing and stitching. • Have used simple patterns and templates for marking out. • Have evaluated a range of textile products. 	<ul style="list-style-type: none"> • Constructed a simple series electrical circuit in science, using bulbs, switches and buzzers. • Cut and joined a variety of construction materials, such as wood, card, plastic, reclaimed materials and glue.
Composite knowledge (Inc. Key Questions)	Technical knowledge and understanding <ul style="list-style-type: none"> • 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. <p>- What substances are used in the products e.g.</p>	Technical knowledge and understanding <ul style="list-style-type: none"> • Know how to strengthen, stiffen and reinforce existing fabrics. • Understand how to securely join two pieces of fabric together. • Understand the need for patterns and seam allowances. • Know and use technical vocabulary relevant to the project. 	Technical knowledge and understanding <ul style="list-style-type: none"> • Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers. • Apply their understanding of computing to program and control their products. • Know and use technical vocabulary relevant to the project. <p>- What materials have been used and why?</p>

	<p>nutrients, water and fibre?</p> <ul style="list-style-type: none"> - 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? 	<ul style="list-style-type: none"> - What properties/characteristics does the fabric have? Why has this fabric been chosen? - How has the fabric been joined together? - How effective are its fastenings? - Does its decoration have a purpose? - Which stitch is appropriate for the purpose? - Which joining techniques are suitable for the fabric and purpose? 	<ul style="list-style-type: none"> - How is it suited to its intended user and purpose? - How might different types of switches can be useful in different types of products?
<p>Key Concepts (Component / intentional knowledge - what they need to understand)</p>	<p>Designing</p> <ul style="list-style-type: none"> • 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. <p>Making</p> <ul style="list-style-type: none"> • 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. <p>Evaluating</p> <ul style="list-style-type: none"> • 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. 	<p>Designing</p> <ul style="list-style-type: none"> • Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s. • Produce annotated sketches, prototypes, final product sketches and pattern pieces. <p>Making</p> <ul style="list-style-type: none"> • Plan the main stages of making. • Select and use a range of appropriate tools with some accuracy e.g. cutting, joining and finishing. • Select fabrics and fastenings according to their functional characteristics e.g. strength, and aesthetic qualities e.g. pattern. <p>Evaluating</p> <ul style="list-style-type: none"> • Investigate a range of 3-D textile products relevant to the project. • Test their product against the original design criteria and with the intended user. • Take into account others' views. • Understand how a key event/individual has influenced the development of the chosen product and/or fabric. 	<p>Designing</p> <ul style="list-style-type: none"> • Gather information about needs and wants, and develop design criteria to inform the design of products that are fit for purpose, aimed at particular individuals or groups. • Generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, cross-sectional and exploded diagrams. <p>Making</p> <ul style="list-style-type: none"> • Order the main stages of making. • Select from and use tools and equipment to cut, shape, join and finish with some accuracy. • Select from and use materials and components, including construction materials and electrical components according to their functional properties and aesthetic qualities. <p>Evaluating</p> <ul style="list-style-type: none"> • Investigate and analyse a range of existing battery-powered products. • Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work.
<p>Vocabulary</p>	<p>hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet</p>	<p>fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance</p>	<p>series circuit, fault, connection, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip</p>

Cross-curricular links	PSHE - Health		Science - Electricity
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