

## Progression of Knowledge and Skills in Design and Technology

Moving and handling: Children show good control and coordination in large and small movements. They move confidently in a range of ways, safely negotiating space. They handle equipment and tools effectively, including pencils for writing.

Health and self-care: Children know the importance for good health of physical exercise and a healthy diet, and talk about ways to keep healthy and safe. They manage their own basic hygiene and personal needs successfully, including dressing and going to the toilet independently.

Shape, space and measures: Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.

Technology: Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.

**EYFS** 

Exploring and using media and materials: Children sing songs, make music and dance, and experiment with ways of changing them. They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

Being imaginative: Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.

Knowledge	Planning/Designing	Making	Evaluating	Food Technology
Year 1/ Year 2	Explore a range of existing products to identify likes and dislikes  Explore the designers Emma Sewell Harriet Wallace-Jones (designers of London Transport textiles)	Follow basic procedures of safety Build structures and explore how they can be made stronger stiffer and more stable Understand the 'in and out' sequence needed to weave Explore a range of products that use weaving techniques Assemble join and combine materials and components Identify and name wheels and axles on vehicles and explain simply their purpose	Start to know how to evaluate their product by discussing how well it works	Name and taste a variety of fruits Understand that food comes from a variety of different places Use basic principles of healthy and varied diet to prepare dishes Know that everyone should eat at least five portions of fruit and veg each day

		Know that levers and sliders make		
		things move and are mechanisms		
		times more and are medianisms		
Year 3/ Year 4	Investigate and analyse a range of existing products and dissemble where possible to understand how they work  Investigate how well products have been made, what materials have been chosen, what methods of construction have been used, how well the products work Identify some great designers and inventors and explore their work  Explore the designers David Misell (1899)- invented of the portable flash light Michael Faraday Julie Taymor: puppet designer of Lion King Brunel – Clifton bridge Zaha Hadid – Sheikh Zayed Bridge in Abu Dhabi. Norman foster – Gherkin and Millennium bridge London	Follow procedures of safety  Apply their knowledge of how to strengthen stiffen and reinforce more complex structures  Name the basic components of an electrical circuit  Know the basic paper folding techniques needed to create pop up paper designs  Identify and name gears, pulleys and levers and know that these a mechanisms that can help us.	Start to know how to evaluate their product against the original design	Have knowledge of a range of fruits, veg and foods and where they come from  Understand the basic health and safety issues when using tools and basic electrical equipment in a kitchen.  Understand and apply principles of healthy and varied diet — a healthy diet is made from a variety and balance of different foods and drinks
Year 5/ Year 6	Investigate and analyse a range of existing products suggest improvements to the users experience  Investigate how much products cost to make and how innovative products are and how sustainable the materials are  Identify great designers and their work: William Morris- arts and craft movement	Responsibly follow procedures of safety Understand how a cam mechanism works within products Understand and use electrical systems and know how simple electrical circuits work in products	Know how to evaluate their product critically	Know that being active and eating healthy  Know that food contains different substances – water, fibre and nutrients- all needed for a healthy diet  Know that a recipe can be adapted by adding or substituting one or more ingredients  Understand the needs for correct storage

Explore the designers: William Patterson – designer of the Anderson shelter Siba Mtongana- South African chef		

Skills	Planning	Making	Evaluating	Food Technology
Year 1/ Year 2	Select from a range of materials and components according to their characteristics  Generate ideas and plans through talk, drawing and using their own experiences	Perform practical tasks of cutting, shaping, Joining and finishing  Explore and use mechanisms levers, sliders wheels and axles in their products  Join textiles using glue, weaving techniques and simple running stitch through pre punched holes	Evaluate their products and identify strengths and simple ways their product could be improved  Use the words up, down, right, left, vertical and horizontal to describe movement.	Use techniques such as cutting, grating and peeling Prepare simple dishes safely and hygienically without a heat source Assembly healthy ingredients Use appropriate equipment safely to prepare food
Year 3/ Year 4	<ul> <li>Their design will</li> <li>order the main stages of making</li> <li>identify and produce a list of tools, equipment and materials that they need</li> <li>with support, generate ideas for an item considering its purpose and the user.</li> </ul>	Measure, mark out, cut and shape materials and components with some accuracy Assemble join and combine materials and components with some accuracy Apply a range of finishing techniques Join fabrics with running stitch and/or back stitch	Evaluate their product – identify strengths and weaknesses of their product  Evaluate their products against the original design	Prepare and cook a variety of predominately savory dishes using a range of cooking techniques and equipment  Use a range of techniques such as peeling, chopping, slicing, mixing, spreading  With support, follow a simple recipe

	With support, thread a needle and knot thread. Experiment with gear, pulleys and levers to support movement.		
Start to generate, develop, model and communicate their ideas and plans through discussion, annotated sketches, cross sectional drawings and labelled diagrams.  Year 5/ Year 6	Accurately measure, assemble join and combine materials and components  Combine electrical components safely and accurately  Accurately apply a range of finishing techniques including those from art and design  Create and use a cam mechanism within their product  Practice running, back and blanket stitch to join two materials including casting on and off. Use and thread a needle with increasing independence  Employ a seam allowance when using textiles	Record evaluations using drawing and labels  Compare products to their original design specification  Critically evaluate the quality of the design, manufacture and fitness for propose, as they design and make and at the end of the assignment	Use a range of techniques such as peeling, chopping, slicing, mixing, spreading and baking  Measure ingredients accurately using grams  Prepare simple dishes safely and hygienically with a heat source  With increasing independence follow a simple recipe