

**Key Stage 1 Progression in Design and Technology - Skills and Knowledge**

**Aims**

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].

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

<b>Design</b>		<b>Make</b>		<b>Evaluate</b>	
Design purposeful, functional, appealing products for themselves and other users based on design criteria	Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]	Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	Explore and evaluate a range of existing products	Evaluate their ideas and products against design criteria

**Technical Knowledge**

<b>Know how to</b>	<b>Key Concepts</b>	<b>Know how to</b>	<b>Key Concepts</b>
Build structures, exploring how they can be made stronger, stiffer and more stable	User Purpose Innovation Authenticity Functionality Design Decisions	Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	User Purpose Innovation Authenticity Functionality Design Decisions
<b>Year 1</b> Structures - Freestanding	Know how to make freestanding structures stronger, stiffer and more stable Know and use technical vocabulary relevant to the project	<b>Year 1</b> Mechanisms and Sliders Puppets and story book scenes	Explore and use sliders and levers Understand that different mechanisms produce different types of movement Know and use technical vocabulary relevant to the project
<b>Year 2</b> Textiles Templates and joining Techniques Felt Decorations / Toys	Understand how simple 3D textile products are made, using a template to create two identical shapes Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling Explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons Know and use technical vocabulary relevant to the project	<b>Year 2</b> Wheels and Axles Design / Make vehicles	Explore and use wheels, axles and axle holders Distinguish between fixed and freely moving axles Know and use technical vocabulary relevant to the project.

**Cooking**

**Aims**

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 great 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:**

Use the basic principles of a healthy and varied diet to prepare dishes	Understand where food comes from
<b>Year 1 and 2</b> Food – Preparing fruit and vegetables	Understand where a range of fruit and vegetables come from e.g. farmed or grown at home Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of the eatwell plate Know and use technical and sensory vocabulary relevant to the project

**Websites**

**STEM:** <https://www.stem.org.uk/resources/collection/2891/nuffield-primary-design-and-technology>  
**The Design and Technology Association** <https://www.data.org.uk/for-education/primary/#>