Design and Technology

Teaching children practical skills for life.

Through the teaching of Design and Technology, children learn specific skills, including correct use of tools and specific methods of construction. They are provided with opportunities to apply these in their own products and to consider the purpose of their designs. The skills taught in Design and Technology are set to provide a lifelong bank of key skills to build upon. It is not the end product that counts, but the journey towards it.

Key Objectives EYFS *In Foundation the past is taught through the curriculum area 'understanding the world'. The Early Learning Goal for this area is:*	*Key Objectives for KS1* *Children will learn:*
Expressive Art and Design: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Share their creations, explaining the process they have used; - Make use of props and materials when role playing characters in narratives and stories.	**Design** • 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 **Make** • 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 **Evaluate** • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria Technical knowledge • build structures, exploring how they can be made stronger, stiffer and more stable • explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. **Cooking and Nutrition** • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from

Throughout Foundation, opportunities for children to develop design and technology skills are created throughout the curriculum. Children are taught and given opportunity to develop skills such as cutting, mixing, attaching materials using a range of tools and construction equipment. As part of ongoing dialogue, teachers question children to consider the success of their work and to develop children's ability to evaluate what they have done. Skills in Foundation are to be taught explicitly and through continuous provision. Teachers skilfully build upon skills observed and increased the complexity of tasks set.

Key skills to be developed in Foundation

Cutting

Fixing (using glue, tape etc)

Folding

Key Tools/Materials to be used in Foundation

Scissors

Hole Punch and butterfly hooks

Pencil

Glue

Staples and Stapler

Various tapes (sellotape and masking tape)

Sewing equipment (needle and thread)

Cooking equipment

Key Stage One

In Key stage one, good Design Technology follow a progression of teaching:

Design Brief – Considering the purpose for design and construction

Evaluation – Evaluation of current products against a given design criterion

Focus Practice Task – The teaching of specific construction skills and technique – for example, teaching children various ways of constructing an axel, teaching children how to use cooking utensils.

Design – Using what children have already learnt to design a functional product to meet a design brief

Make – Using learnt skills to create an appealing product

Evaluation – Testing out the finished product, evaluating against the design brief and offering modifications

In Key Stage One, Design Technology is taught as a sequence of lessons, each term. Each Block focusses on a different skill

The key knowledge and skills to be mastered are highlighted in purple, which will enable children to progress through this particle subject.

	Levers and sliders	Textile	Food (basic principles of a varied diet)
Cycle A	▪ Design Brief (i.e. design a moving picture for a children's book) ▪ Evaluate various products which use levers and sliders ▪ FPT – Children will be taught the term pivot. Children will learn how to make moving pictures **– exploring pivot points** with levers and various ways of constructing sliders. (Evaluate construction methods for strength and stability). Children will also be taught an example of a multiple pivot lever. ▪ Design a product based on given criteria and taught skills ▪ Make product ▪ Evaluate against design brief	▪ Design brief (i.e. create a finger puppet to retell a story) ▪ Evaluate existing products i.e. puppets ▪ FPT - Teach three different techniques for joining fabrics – stich, adhesive and staples (Evaluate construction methods for strength and stability) ▪ Design a product based on given criteria ▪ Make product ▪ Evaluate against design brief	▪ Design Brief (i.e create a healthy smoothie) ▪ Evaluate various foods, considering things which are and are not health. Consider what foods may go well together to create good taste. ▪ FPT -Teach children how to use cooking tools sensibly and safety and evaluate which tools to use for which foods. ▪ Design a product/meal based on given criteria ▪ Make product ▪ Evaluate against design brief

	Wheels and Axels	*Where food comes from*	*Textile*
Cycle B	▪ *Design Brief i.e. create a pull along toy for a toddler* ▪ *Evaluate various products which use wheels and axels* ▪ *FPT -Teach children how to make moving wheels* ***– fixed axels, attached axels and individualised axels*** *(Evaluate construction methods for strength and stability)* ▪ *Design a product based on given criteria* ▪ *Make product* ▪ *Evaluate against design brief*	▪ *Design brief i.e. design a pizza using toppings grown in UK* ▪ *Evaluate existing products* ▪ *FPT -Teach the children how to make a basic pizza base and prepare toppings* ▪ *Design a product based on given criteria* ▪ *Make product* ▪ *Evaluate against design brief*	▪ *Design brief i.e. design a small purse for loose change* ▪ *Evaluate existing products* ▪ *FPT -Teach three different stich techniques for joining fabrics (running stich, whip stich and back stich) – For children with particular SEND, succeeding in running stich will be key. (Evaluate construction methods for strength and stability)* ▪ *Design a product based on given criteria* ▪ *Make product* ▪ *Evaluate against design brief*