

How are concepts developed in Design Technology within the school's curriculum plan?

Each concept is interwoven into each unit of work. However some units naturally provide greater opportunity for the concept to be explored and children's understanding deepened. Examples of this as below.



In EYFS children are encouraged to make things as a daily opportunity within the continuous provision. This may be junk modelling, construction toys, Lego and brick building and so on. There are a variety of opportunities for children to experiment and explore with. Children can think about how they respond to a specific problem "What could we do/make to help keep the treasure safe?" As well as follow enquiries given, children are encouraged to create their own problems and briefs to solve. Children have practical experiences of decorating biscuits and cakes where they look at designs that they have seen in the shops.

In KS1 children research and find out about making things move including wheeled items and using levers and sliders. They look at how they are used in real life items and different mechanisms. They also explore different types of bread and bread making ingredients and techniques. Children research different ways of joining materials and respond to a brief to join materials. They also research and have a go at building simple structures.

By KS2 children have a good grounding in Food Technology and use this to help them research origins of food and how food is handled safely. Children respond to a brief to create a healthy meal as well as how to make a meal out of limited ingredients available to them. As part of this they look to experiences of the past (rationing). They also build

upon their research around structures finding out about bridges around the world and their different designs and compositions. Children test strength and stability of different options before embarking on their own designs. Children within KS2 further their understanding of textiles and joining techniques.



Throughout their time in school children strengthen their knowledge and understanding of design. Their skills develop alongside this growing knowledge and understanding.

From EYFS and KS1 children will be able to discuss the designs they like and dislike and why. In KS2 children will be able to take inspiration from design and identify some of the great designers in different areas to generate their own ideas for design.

Within EYFS children may be asked to try and draw or plan out what they are going to make, however we understand that sometimes little ones can only do this once they have created their finished piece as their processing is not yet fully developed.

By KS1 children are expected to follow the design process properly, sketching out at least one design in Year 1, building to at least 2 in Year 2 that they can annotate simply with colours and materials.

By KS2 children understand well the value of design in drafting ideas, learning from the work of others (looking at designs from others in the research stage) and how they can improve and adapt their designs as they go along as needed. Children are encouraged to provide detailed annotations and then evaluate the viability of these in being produced within the constraints of equipment and materials available to them. Children will be able to name key designers within different fields and

understand the way that their designs have contributed to improving life.

By KS2 children will be able to design with purpose and increase the use of software within the design process using Purple Mash and other packages.



As would be expected children will encounter a variety of different ways of making things within the curriculum. They will access a range of tools and as they move through school their making will require less adult modelling and assistance and become more independent.

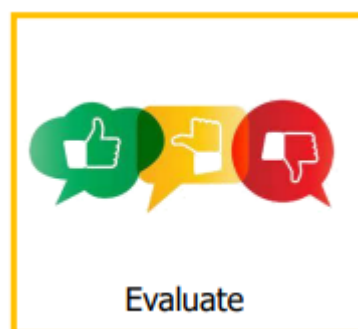
The tools children access develop in complexity and sophistication. In EYFS and KS1 they will concentrate on developing good scissor control and skills of folding, curling, tearing etc. In KS2 they will develop these skills further and introduce the use of careful measurements and incorporating cuts and slots etc.

Within EYFS all efforts will be appreciated so that children feel confident to have a go. By KS1 children will be challenged to ensure that their making is of a good standard and by KS2 children will be supported to show pride in their work, overcome barriers and challenges and ensure that their work meets the brief set.

Within the area of Food Technology children will develop their skills of cutting, chopping and peeling but then move on in to KS2 measuring and weighing out ingredients themselves and following a recipe.

Children will understand different ways that engineers contribute to the world and how important making is in KS1. Children will be able to suggest improvements on existing designs by KS2.

Within EYFS all efforts will be appreciated so that children feel confident to have a go. By KS1 children will be challenged to ensure that their making is of a good standard and by KS2 children will be supported to show pride in their work, master techniques, overcome barriers and challenges and ensure that their work meets the brief set.



In EYFS children will be taught to reflect upon the success of their design. E.g "I like the way it opens". This will need to be supported and scaffolded and in some cases modelled. Children will have an opportunity to evaluate the work of others also "I think the window needed to be bigger". This will almost certainly be done verbally.

By KS1 children can reflect and evaluate upon the success of the finished product as well as comment on what went well during the make process and what could have gone better. They have a sense of how work can be improved and can comment with greater accuracy on quality of design, fit for purpose and aesthetics. "I like the way the wheels turn together, the back wheels needed to be bigger though."

By KS2 children can evaluate established designs for their suitability to meet a brief (e.g different kinds of tin openers for ergonomics, aesthetics and functionality) and can apply this critical thinking to their own designs and products and those of others. Children can think throughout the making process about where they need to adapt their designs to ensure functionality.



Throughout their time in school children will have a growing bank of technical knowledge and technical language at their disposal. Within different disciplines and themes this may be revisited over time. E.g as part of Food Technology.

Children have time to revisit previous techniques throughout the curriculum but use and apply them with increasing skill and complexity within their makes.

Children will understand well food preparation and food hygiene practices with these really being tested independently by the time they reach KS2.

Within each unit the key technical knowledge and language that children must retain and know is mapped out showing progression throughout the school.