Tower Hill Primary School
Design and Food Technology Rationale

Intent:

At Tower Hill Primary School our core vision is that ALL children will be equipped with the skills, knowledge, understanding and empathy that will lead to them being able to make their own choices in life, successfully. The intent of our Design and Technology curriculum is to design a curriculum, where children learn to think and intervene creatively to solve problems, both as an individual and as part of a team.

We believe the learning of Design and Technology develops the creative, technical and practical expertise needed to perform everyday tasks confidently, allowing children to participate successfully in life, using the knowledge they are equipped with to make the right choices; in an increasingly technological world. This is directed to all children, irrespective of their background and ability, following the policy 'no ceiling to learning and achievement'. The teaching of Design and Technology should provide children with the confidence to use their repertoire of knowledge, understanding and skills, in order to design and make high-quality prototypes and products for a wide range of users. Design and Technology at, Tower Hill, should provide children with the key skills of critique, evaluation and testing ideas, fairly, equipping them to transfer successfully to Key Stage 3.

Implementation:

At Tower Hill, our Design and Technology Curriculum is coherently planned and sequenced towards all children (including those classified Disadvantaged or with SEND) to develop and build sufficient knowledge and skills for future learning. Tower Hill's Design and Technology Curriculum children will develop the key skills and knowledge for each unit. These skills will build on sequentially from each other from KSI to KSII for the specific outcomes expected. Children should see and make the connections to their learning in Mathematics, Science, Literacy, Computing, Art and many others, using written and spoken language.

Early Years Foundation Stage:
The Early Learning Goal for exploring Media and Materials states: 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. This is used alongside the Early Learning Goal for Being Imaginative which states: 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.

In EYFS the children are given a variety of opportunities to explore different tools and materials. They are encouraged to experiment with how to join materials and represent their ideas. These opportunities are provided through child initiated time and the children are assessed through observations.

Key Stage I:

The National Curriculum states that in KSI: 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.

- In the project of ***'Moving Pictures',*** Year 1 are introduced to tools and equipment to perform practical tasks, such as cutting, folding and sticking. Additionally, they are beginning to explore mechanisms, such as sliders.
- Year 1 select a range of materials and components to construct a suitable house, looking at the materials characteristics, when building a house for The Three Little Pigs in the project, ***'Construction of Homes'.*** Children are given the opportunity to begin communicating their ideas and drawing designs and templates. This is later developed further in Year 2.
- Through the ***'Models of Wonders'*** project in Year 2, children are able to generate ideas to design an appealing and purposeful piece of equipment, after exploring and evaluating different playground equipment and their materials and mechanisms. They then use this information to communicate ideas in groups to plan and draw designs. Once their equipment and its structure is built, the opportunity to evaluate their design for its purpose, against their design, is given. This will lead to the discussion on how it can be made more stable.
- The project in Year 2, ***'Puppets'***, allows the children to use and develop on their design skills and techniques using a further range of materials, textiles. Children will begin developing the skill and technique of sewing that will be later developed in Key Stage II.
- Throughout KSI, children are instilled with a love of cooking through creativity. This is shown when making hedgehog bread in Year 1 and the link to Remembrance when making vegetable soup in Year 2. This builds the fundamental foundation for this crucial life skill. Additionally, children are continuously reminded of the importance of health and safety, as well as hygiene, both when preparing and cooking their own food, and before eating.

The National Curriculum states that in KSII: 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 (the home, school, leisure, culture, enterprise, industry and the wider environment).

- Through the unit ***'Leavers – Shadufs'*** in Year 3, children are given the opportunity to research, investigate and analyse the design of the mechanism, levers. This allows them to select the right tools and equipment to perform the practical task of cutting and joining to create the mechanism. These skills will prepare them for Year 5, when they create cams.
- Year 3 and 4 are given the opportunity to continue and develop the skill of evaluating their work within the topics, ***'Joining- Photo frames'*** and ***'Constuction – Boats'.*** During their evaluation task, against their design criteria, they are given the opportunity to apply their understanding to strengthen, stiffen and reinforce their joins and constructions.
- The opportunity to select a wide range of materials and components are given throughout KSII, for children to practise their practical skills. During Year 4, children are able to develop their cutting and finishing skills when creating a ***'Pop Up Book'*** for a specific researched group of people. The sewing skills and textile work is further grown and enhanced within Year 5 when making felt pillows for the topic ***'Textiles – European Flags'.*** They will consider the properties of the pillow and the aesthetic qualities.

- When planning, across the Key Stage, children will create prototypes and annotated sketches to inform their making process. These include cams, boats, sandals and shadufs. This is often done through discussion and communication in pairs or small groups.
- In Year 6, children are able to look and understand how individuals and groups of people have helped shape the world with their designs and inventions. This takes place when completing the unit, ***'Textiles – Ancient Greek Sandals'.***
- Children's love for cooking continues to grow as they are introduced to a variety of savoury food through food tastings and Tudor banquets. Children research a range of ingredients that can be included in one dish. For example, when completing the topic of ***'Homemade Burgers',*** children steer from beef or chicken, to the option of a turkey or bean burger.
- There are a range of savoury dishes created in KSII, such as pasta sauce in Year 3, burgers and pizza in Year 4, toad in the hole in Year 5 and moussaka in Year 6. However, sweet dishes are also included in the curriculum, such as, scones, eggless sponge cake and rock cakes. Throughout each lesson, the understanding of the basic principles of a healthy and varied diet is reinforced.

Impact:

In Design and Technology, we assess the impact of the curriculum on our learners in a number of ways. Firstly, we ensure that our children's skills and knowledge, linking directly to the National Curriculum, is developed and built on throughout KSI and KSII, and at times across the two Key Stages. Children should be able to talk and discuss their learning, linking it to their prior learning. For this to happen, end outcomes are shared with the children, as well as the steps and the skills developed on this Learning Journey. This will lead to a sequence of lesson that include design, making, evaluating and the inclusion of technical knowledge within all these aspects. Following the each unit, children are given the time and guidance needed to evaluate their work, against their design criteria.