## **Design Technology Intent and Overview**

At Maple Tree Primary School (MTPS) we aim to design a Design Technology curriculum with appropriate subject knowledge, skills and understanding as set out in the National Curriculum. We aim to provide an inspiring, balanced and broad curriculum, which engages all children and promotes a love of exploring how and why different machines, mechanisms and technologies work. We aim to draw on children's knowledge and understanding from mathematics, computing, art and science. Our children try to develop their critical understanding through taking risks, evaluating present day designs and technologies and through considering a wide range of users.

Design Technology encourages children to learn to think creatively to solve problems both as individuals and a member of a team. At MTPS, we encourage children to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. We would love our children to leave Year 6 with a drive to enter the world of work with the aspiration of developing creative tech-based solutions to existing problems.



|                                  | Autumn 1   | Autumn 2                          | Spring 1                             | Spring 2                 | Summer 1                                     | Summer 2                              |
|----------------------------------|--|-----------------------------------|--------------------------------------|--------------------------|--|---------------------------------------|
|                                  | <ul> <li>Over the course of the year, children will be provided with opportunities to:</li> <li>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> </ul> |                                   |                                      |                          |  |                                       |
| Reception                        |  |                                   |                                      |                          |  |                                       |
| Expressive<br>Arts and<br>Design | Share their creations, explaining the process they have used.  |                                   |                                      |                          |  |                                       |
|                                  | <ul> <li>Construct with a purpose in mind, using a variety of resources.</li> </ul>  |                                   |                                      |                          |  |                                       |
|                                  | Manipulate materials to achieve a planned effect.  |                                   |                                      |                          |  |                                       |
| Design                           | Selects appropriate resources and adapts work where necessary.   |                                   |                                      |                          |  |                                       |
|                                  | Make use of props and materials when role playing characters in narratives and stories   |                                   |                                      |                          |  |                                       |
|                                  | The use of Design and Technology skills and knowledge will also be encouraged during continuous provision using  |                                   |                                      |                          |  |                                       |
|                                  | The creative table   |                                   |                                      |                          |  |                                       |
|                                  | Construction area (kits)   |                                   |                                      |                          |  |                                       |
|                                  | Construction area (modelling)  |                                   |                                      |                          |  |                                       |
|                                  | Block play   |                                   |                                      |                          |  |                                       |
|                                  | Small world play   | 1                                 |                                      |                          |  |                                       |
| Year 1                           | Diorama of under the sea   | Making a lighthouse               | Making shields                       | Design and make a castle | Making a weather vane                        |                                       |
|                                  |  |                                   |                                      |                          |  |                                       |
| Year 2                           | Designing a Tudor Home<br>Fixing and joining a Tudor Home  |                                   | Design clothing for the              | Design a model           | Making bread                                 | Design and create a picnic            |
|                                  |  |                                   | Emperor                              |                          |  | plate                                 |
|                                  |  |                                   |                                      | Clay models inspired by  | Design and create a                          |                                       |
|                                  |  |                                   | Decorate a T shirt using             | Barbara Hepworth         | habitat for an imaginary                     |                                       |
|                                  |  | 1                                 | fabric pens                          |                          | animal                                       |                                       |
| Year 3                           | Design and make stone and tools  | Design and make a                 |                                      |                          | Design make and                              | Maka a Canania lan/King               |
| rear 5                           | Design and make stone age tools  | Design and make a<br>healthy meal | Make a river and<br>mountains model  | Make a working volcano   | Design, make and evaluate a shaduf           | Make a Canopic Jar/King<br>Tut's mask |
|                                  |  | nearthy mean                      |                                      |                          |  | Tut S Mask                            |
| Year 4                           | Design, make and evaluate a Roman soldier's shield   |                                   |                                      |                          | Design, make and evaluate a Viking long ship |                                       |
| Year 5                           | Earthquaka proof buildings   |                                   | Docign Grook clothing                |                          | Create a model of the color system           |                                       |
|                                  | Earthquake proof buildings   |                                   | Design Greek clothing                |                          | Create a model of the solar system           |                                       |
| Year 6                           | VE Day street party – plan and food prep   |                                   | Evaluate bird boxes, design and make |                          | Build a ski lift – Alps link                 |                                       |



## **Design Technology Implementation**

At MTPS, we teach the National Curriculum which is supported by clear progression of skills and knowledge. This ensures that skills and knowledge are built on year by year and sequenced appropriately in order to maximise learning for all children. All teaching of DT continues to follow the design, make and evaluate cycle, exploring innovative designs that inspire us to make life better through design and technology. Each stage should be rooted in technical knowledge. The design process explores real life, relevant contexts in order to give meaning to learning. While designing and making, we aim to equip children with choice and a range of tools to choose freely from. To evaluate, children are able to evaluate their own products against a relevant criterion. Each of these steps reflect and develop the use of technical knowledge and vocabulary.

Design and technology is usually project based and teachers may decide to teach it as a block through a 'DT week', or in weekly sessions. This may change depending on the outcome of the project.

In Early years, pupils explore and use a variety of media and materials through a range of both child-led and adult-led learning activities. Children's interests are explored when they arise in order to build a sense of curiosity and interest. Inside, pupils explore and experiment with construction kits and 'junk modelling' materials, and are encouraged to try new ways of constructing models. A range of cutting and joining resources are always available to find new and innovative solutions. Outside, pupils explore construction and design further through forest school, exploring design and technology skills through enriched experiences. Den making, village building and constructing with a purpose is continuously explored.

This love of learning is developed upon in Key stage 1 and Key stage 2, with an emphasis on exploring materials and using new resources in order to create a range of outcomes (written in the overview). Through presenting, explaining and using these products, pupils are able to articulate how the meet the needs and wants of our local community.

## **Design Technology Impact**

Assessment of children's learning in Design Technology is an ongoing monitoring of children's understanding, knowledge and skills by the class teacher, throughout sequenced units of work. This assessment is then used to inform differentiation, support and challenge each pupil in future lessons.

The progress and impact of our curriculum is measured in the following ways:

- Pupil's will have a deeper understanding and greater knowledge of
- More pupils will attend eco club.
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