

Design and Technology

Springfield Infant School and Nursery



Intent

At Springfield, we have designed and follow a creative curriculum. We feel that this provides the opportunity to celebrate individuality and creativity in all of our children.

At Springfield our design and technology teaching and learning is inspiring, challenging and practical. It encourages children to think creatively, solve problems and work collaboratively. These are highly important skills, which can be transferred and applied to all other areas of the curriculum, as well as, imperative skills for their future adult lives. We believe that children learn best when there is a purpose for their learning. Where the children can make links and connections to other parts of the curriculum, their learning and their wider life. At Springfield, we follow a creative curriculum, thus we incorporate a creative, cross curricular approach to the teaching of design and technology, linking where possible to our over-arching topics. In design and technology children are required to draw upon skills previously taught in mathematics, art, science, RHE and computing.

Our Springfield 'I CAN' values are embedded in our design and technology curriculum. At Springfield, design and technology has a pivotal role of enabling **inclusivity**, children feeling **nurtured** along their learning journey, being **creative** and having the chance to challenge themselves and be **ambitious** with the work that they produce. The skills children acquire in design and technology are a means of supporting their learning in a range of ways, and can be transferred to other areas of the curriculum.

Design and technology gives children the opportunity to develop skills, knowledge and understanding of designing and making functional products. At Springfield, we feel it is vital to nurture creativity and innovation through design, and through the exploration and evaluation of past and present design and technology. This enables children to develop a critical understanding of its impact on daily life and the wider world.

Implementation

Our design and technology curriculum teaches children the knowledge, understanding and skills needed to engage in the interactive process of designing and making through a variety of creative, cross-curricular and purposeful practical activities. When designing and making we have four strands that run through each theme, directly linked to the National Curriculum:

Designing

- 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.

Making

- Select from and use a range of tools and equipment to perform practical tasks, (or 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.

Evaluating

- 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.

In the EYFS our children are provided with opportunities to explore and use a variety of media and materials through a combination of child initiated activities, known as 'Busy Bee' time and adult directed activities. We encourage children to use different media and materials to express their own ideas and develop their ideas in original ways, thinking of form, function and purpose. We encourage children to make plans and construct with a purpose in mind using a range of resources. In the EYFS children are introduced to tools and techniques, and are provided with opportunities to develop their skills in using these appropriately, effectively and safely. At Springfield, our children are taught to become innovative and creative learners, selecting appropriate resources for a product and adapting their work where necessary.

As the children progress through Key Stage One, we provide them with a variety of creative and practical activities that develop the knowledge, understanding and skills needed to engage in an interactive process of designing and making. Key skills and knowledge for design and technology have been mapped across the school to ensure progression throughout each year in our 'progression of skills' documents. We ensure there is a context for the children's work linking to our over-arching termly topics. Our children learn about real life structures and the purpose of products, then are able to design and make products with a purpose in mind and for an intended user. Furthermore, we look at products from a range of cultures and countries. We feel this broadens our children's understanding and enables them to have a non-Eurocentric learning experience. An example of this, is when designing a musical instrument in Year 2, the children will research and evaluate instruments from around the world such as the Djembe drum from West Africa or the Hulusi from China. Moreover, cooking and nutrition is implemented across the school with children developing an understanding of where food comes from, the importance of a varied and healthy diet as well as how to safely prepare food.

The children's learning is further enriched and developed through a Springfield themed week, which will always have a creative thread. The children have the opportunity to come off of the 'typical' curriculum timetable and become fully immersed in a creative theme. In addition to this, we use links with our local school community and we invite in local figures, designers and artists to share their knowledge and expertise with our children. Not only does this develop the children's learning further but it helps them feel immersed within their local community.

We believe that design and technology is a crucial part of children's education and are dedicated to teaching and delivering a high quality design and technology curriculum and providing well planned and resources projects and experiences.

Impact

At Springfield our design and technology curriculum equips the children to explore, take risks, evaluate, reflect and become resourceful, innovative and capable citizens. We want our children to develop their imagination, their critical thinking and their understanding of the world around them through their love of design and technology. We aim for our children to become engaged in the world around them, to question and think innovatively in order for them to develop their own products with a purpose in mind. Our children are able to grow and develop as individuals whilst learning vital skills and being provided with opportunities to explore for themselves.