



# Design and Technology Intent

## Key Purpose: Why is this subject important?

- Design and Technology education helps develop children's skills knowledge in design, materials, structures, mechanisms and electrical control. It also provides contexts for children to explore broader issues such as environmental impact and sustainability as well as enterprise and economics.
- Design and Technology offers opportunities for children to develop their capability and understanding of quality in terms of both function and aesthetics. By combining their design and making skills with knowledge and understanding they learn to create products that meet particular specifications.
- Design and Technology education involves two important elements - learning about the designed and made world and how things work, and learning to design and make functional products for particular purposes and users.
- The skills learned in D&T also help with learning across the curriculum. Knowledge about the properties of materials helps in science and the practice of measuring accurately helps in maths. These skills help in information technology through the children's use of computer control and, naturally, in art and design.

## Key Principles: What are the distinctive ways of knowing, working and learning in this subject?

- Our children receive a design and technology curriculum which allows them to exercise their creativity through designing and making. It is based closely on the National Curriculum, and is supported by a well-designed sequence in skills and knowledge progression. This also ensures that there is appropriate breadth through regular encounters with the different strands such as cooking, textiles, materials and mechanisms.
- D&T is usually taught in short blocks to enable children to remain focused and to make management of materials and resources more efficient.
- The teaching of DT should follow the design, make and evaluate cycle. The design process is enhanced when rooted in real life with relevant contexts often giving meaning to the learning. For instance; activities in which children design and make '*something*' for '*somebody*' for '*some purpose*'.
- While making, children should be given choice and a range of tools to choose freely from. To evaluate, children should be able to evaluate their own products against specified design criteria. Each of these steps should be rooted in technical knowledge and vocabulary.

## Expectations: What does success look like?

By the time children leave our school they will:

- Demonstrate the ability to use time efficiently and work constructively and productively both independently on projects and with others.
- Carry out thorough research, show initiative and ask questions to develop a detailed knowledge of users' needs.
- Show the ability to act as responsible designers and makers, working ethically, using finite materials carefully and working safely.
- Have a thorough knowledge of which tools, equipment and materials to use to make their products.
- Exhibit the ability to apply mathematical knowledge and skills accurately though measurement, geometry and statistics.
- To be able to cook and bake safely and hygienically showing an understanding of nutrition
- Have multiple experiences of using sewing and textiles.
- Use a variety of resistant and flexible materials including incorporating the use of electrical and mechanical components and mechanisms.