

Design and Technology

Design and Technology is a cross-curricular subject which draws on and develops the children's knowledge of Mathematics, Science, Engineering, Computing and Art. It provides practical learning which lays the foundations for designing and problem solving in everyday life. It allows children to explore materials, create from their imaginations and encourages children to take risks, allowing them to become resourceful, innovative, enterprising and capable young global citizens.

Intent

At Dartford Primary Academy, we intend to deliver a Design & Technology curriculum which develops learning and results in the acquisition of knowledge and skills. Our children will know more, remember more and understand more through completing projects that derive from real and relevant problems and allow them to take risks so that they become resourceful, innovative and enterprising young global citizens. We will do this through a curriculum that has appropriate subject knowledge and skills as set out in the Early Years Foundation Stage and the National Curriculum, using the philosophy of the IB to deliver it in an inquiry based way where children have their own agency over their learning.

Implementation

The implementation of the Design & Technology curriculum takes place across the year groups through the transdisciplinary themes of the International Baccalaureate PYP. As children progress through the school, they will develop the skills of the design, make and evaluate cycle, building on their technical knowledge and working within a variety of relevant contexts. From nursery through to year six, children will develop skills around building structures and how to make them stronger, working with textiles and how to join them and explore the use of mechanisms such as levers, linkages, axles and pulley systems. Alongside this, children will prepare food dishes that use the basic principles of a healthy and varied diet and will begin to understand where food comes from as part of the cooking and nutrition section of the programme of study.

Impact

By the time children leave Dartford Primary Academy they will be able to use their time efficiently and work constructively and productively with others. They will be able to carry out research, show initiative and inquire to develop a detailed knowledge of the user's needs. They will have the ability to act as responsible designers, working safely with tools and equipment in order to manufacture safely and hygienically. But most importantly they will have a clear enjoyment and confidence in Design & Technology that they can then apply to other aspects of their learning, including beyond school and into future enterprises.



Design & Technology Curriculum Map



DT Curriculum Map - Autumn Term

| Term | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---|--|--|--|--------------------------------------|---|---------------------------------------|
| Autumn 1 Who we are | Food Healthy Foods, Food categories, 5 a day | Food Communities and Traditional Foods | | Food Pastry and Fruit Flan | Electrical Systems and Mechanisms Controllable Prisoner Barge | |
| Autumn 2 Where we are in time and place | Freestanding Structures A castle with walls and towers | Freestanding Structures A Wooden House Mechanisms A Fire Engine | Food Stew Textiles Medicine Bag | Electrical Systems Torch | | Structures Air Raid Shelter |

DT Curriculum Map - Spring Term

| | | | | | | |
|---------------------------------------|--|----------------------------|--|---------------------------------------|-----------------------------|---|
| Spring 1 How the world works | | | Structures Eye Protection | | | Electrical Systems and Mechanisms Making a Windmill |
| Spring 2 How we organise ourselves | Mechanisms Moving Animal Picture using levers | Textiles Puppets | Food Pizza Structures Pizza Box | Structures Bird Seed Holder | Food Viking Feast | Food Cooking a Healthy Meal |

DT Curriculum Map - Summer Term

| | | | | | | |
|--------------------------------------|--|---------------------------------|---|--|---|--|
| Summer 1 Sharing the planet | Food Where does food come from? | Food Vegetarian Meals | Mechanisms Moving display about the importance of bees | Mechanisms An Opening and Closing Bridge | Structures Sustainable Bird Hideout | |
| Summer 2 How we express ourselves | Textiles Joining materials by gluing | | | Textiles Carnival Costume | Textiles Ancient Greek Sandals | Textiles Production Props and Costumes |

DETERMINED PERSISTENT ACHIEVERS
Learning to Change the World