

MERIDEN CHURCH OF ENGLAND PRIMARY SCHOOL



DESIGN & TECHNOLOGY POLICY

In our school Design & Technology is a robust, inspiring and practical area of the curriculum. At the root of Design & Technology provision is the development of knowledge and the teaching of practical skills that can be utilised in many different contexts. Our DT curriculum enables all learners to gain knowledge and practical skills alongside developing personal skills including problem solving and teamwork. We encourage all children to develop their creativity and imagination as they design innovative and purposeful products that solve real and relevant problems. We also value time given for evaluation and reflection, so that children can become resilient risk-takers who will ultimately be enterprising, resourceful, innovative and capable citizens.

Aims

All pupils will:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook
- through a variety of creative and practical activities, pupils will engage in the process of designing and making.
- work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].

Curriculum

The table below maps out the DT projects that link to each topic across school. The topics cover the appropriate skills for each year group. Individual year group pages of long term planning offer more information on each project, these can be found on the website and in W drive. A minimum of 8-12 hours should be spent on the **design, making and evaluating** process for each project. It is the expectation that children will be using the STEM suite to carry out each project where appropriate. Food prep should be in classrooms. Food technology equipment will only be washed in designated sink areas. STEM lessons are marked in green. All projects should follow this sequence: **BRIEF/ CHALLENGE ---- RESEARCH ---- DESIGN----- MAKE PROTOTYPES----- TEST----- EVALUATE**

		AUTUMN		SPRING		SUMMER		STEM
Year 1	Topic - Toys	Construction and Textiles Pop up puppet	Topic- Antarctica	Mechanisms- sliders and levers Penguins moving picture.	Topic- Meriden The enchanted forest	Food- Healthy and varied diet, vegetable salad and a fruit salad.		Autumn: Christmas wreath from recycled materials – see art plan Spring: Zip wires Summer: Zip wires
Year 2	Topic- Land Ahoy Mary Seacole and F Nightingale	Preparing fruit and vegetables- Make a fruit smoothie for the beach Textiles- Joining techniques Making puppets	Topic- London	Construction Wheels/ Axles for model London Buses	Topic- Castles	Mechanisms- Create a moving trebuchet or cannon launcher to catapult marbles over a castle wall.		Autumn: Parachutes Spring: Boats (Sails) Summer: multi terrain buggy
Year 3	Topic- Stone Age	Food - Research and create a stone age meal with pudding.	Topic- Egyptians	Challenge: Can you create a pyramid which uses levers or linkages to open it? You must create your pyramid from a net and it should also have a map inside of how to get to the mummy.	Topic- Rivers and Mountains	Textiles- 2D shape to 3D product Design and make tote bags.		Autumn: Machine to move rocks (pneumatics) Spring: Marble runs Summer: Wind power (Theo Jansen)
Year 4	Topic- Romans	Mechanical systems- levers and linkages Trebuchet	Topic- South Africa	Food- Healthy and varied diet. South African healthy meal.	Topic- Planet earth Saxons	Design and make a model of a house for a flood plain. The house must have a working fan and a pulley system to help move supplies upstairs.		Autumn: Design a fan to keep cool Spring: House for a flood plain
Year 5	Topic- Space	Food- research, prepare and test (scientifically) food that is fit to take into space.	Topic- Rainforest	Design and make a moving toy with a rainforest theme and at least one light that works off a switch.	Topic- Tudors	Textiles- combining different stitches and fabric shapes to create a new Tudor Rose Food- Create Jumble biscuits on Tudor Day		Autumn: Bridges Spring: Design a new carriage to carry people.
Year 6	Topic- Behind the bombs	Textiles- combining different fabric shapes Wartime Bunting Food - Create a fish and chip supper from scratch	Topic- Natural Disasters (link to Behind the bombs)	Electrical systems- switches and circuits Challenge: Design and create an Anderson shelter with a light bulb and a doorbell buzzer.	Topic- The Mayans	Explore the spices traditionally used in Mayan cooking before creating your own dish 'Guacamole bake off'		Autumn: Robots Spring: Rollercoasters

The Foundation Stage

We encourage the development of skills, knowledge and understanding that help Foundation children make sense of their world. This learning forms the foundations for later work in Design and Technology. These early experiences include asking questions about how things work, investigating and independently using a variety of materials, tools and products. The children develop a range of making skills through handling appropriate tools and construction materials safely and with increasing control. Children are free to play, independently or with friends, with construction sets and materials including recycled materials and themed contrived tasks. All of these experiences encourage exploration, skill development, observation, dexterity, problem solving, critical thinking, teamwork and discussion. These activities are available indoors and outdoors and always attract the children's interest and curiosity. Observations of the children at work, their progress and their creations are documented on the school EYFS 2Simple EvidenceMe account.

Cooking & Nutrition

As part of their work with food, pupils will be taught how to cook and apply the principles of nutrition and healthy eating. At Meriden we believe that learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Pupils will be taught to:

- understand and apply the principles of a healthy and varied diet to prepare food
- prepare and cook a variety of dishes using a range of cooking techniques
- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Assessment and recording

Work in Design and Technology is assessed through judgements of recorded work, practical application and language development involving discussion, description and explanation skills. On completion of a product children self-assess their work and the work of their peers using the Seesaw app as a method of recording this. Evidence may also be seen on 2-D displays and most commonly through 3-D models and photographs of children's work which

can be found in the Seesaw folder for each class. **It is the class teacher's responsibility to make sure that each final product is photographed and evaluated on seesaw before anything is taken home to be shared with family.** At the end of a term the teacher makes a summary judgement about each child in relation to the NC expectations. This is then documented on the Design Technology assessment tracker and analysed by the subject leader to see year group performance, areas of concern or excellence or any trends that mean certain types of pupils need support.

Resources

Consumable resources are stored in the cupboards in the staff room or in the STEM suite. Tools and equipment, if not found already in the classroom, are locked in the science cupboard.

Various construction sets and projects are stored in the STEM suite.

Health & Safety

All subjects are taught with reference to the school Health and Safety policy. Risk assessments are carried out as appropriate by the class teacher and pupils where appropriate. Pupils and staff will take care to undertake and talk about appropriate hand washing and other hygiene related activities prior to preparing food. Pupils and staff working with food must wear aprons designated for cooking. Food technology equipment will only be washed in designated sink areas. All jewelry will be removed and hair tied back.

Equal opportunities

D.T. teaching reflects that all pupils have equal access to a full range of educational opportunities; regardless of family income, gender, race or religion. Where a voluntary contribution is needed to pay for resources all children will have access to these resources regardless of if the contribution has been made or not, unless lack of contributions means the whole project has to be altered.

Signed:

Julie Dorney DT subject lead.

Date to be reviewed: July 2024