



Design Technology Overview

Intent: In Design and Technology we aim to **inspire** children through a broad range of practical experiences to **create** innovative designs which solve real and relevant problems within a variety of different contexts. We encourage children to identify real problems, critically **evaluate** existing products and take risks to create solutions to problems. Time is built in to reflect, evaluate and **improve** on prototypes using design criteria throughout to support this process. Opportunities are provided for children to evaluate key events and **individuals** who have helped shape the world, showing the real impact of design and technology on the wider environment and helping to inspire children to become the next generation of **innovators**.

	Autumn		Spring		Summer	
Reception	<u>Drawing: Marvellous Marks</u> <u>ART & DESIGN</u> Exploring mark making through different drawing materials. Beginning to draw from observation using faces and self-portraits as a stimulus.	<u>Structures: Junk modelling</u> <u>DESIGN TECHNOLOGY</u> In this unit, pupils explore various junk modelling ideas by learning about different types of permanent and temporary joins. They are encouraged to tinker with a combination of	<u>Textiles : Bookmarks</u> <u>DESIGN TECHNOLOGY</u> Pupils develop and practise threading and weaving techniques using various materials and objects. They look at the history of the bookmark from Victorian times versus modern-day styles. The pupils apply their knowledge and skills	<u>Painting and Mixed Media: Paint my World</u> <u>ART & DESIGN</u> Exploring paint and painting techniques through nature, music and collaborative work. Developing creativity through child-led exploration of mixed-media, making collages and transient art.	<u>Structures: Boats</u> <u>DESIGN TECHNOLOGY</u> In this unit, children explore what is meant by 'waterproof', 'floating' and 'sinking', then experiment and make predictions with various materials to carry out a series of tests.	<u>Sculpture and 3D: Creation Station</u> <u>ART & DESIGN</u> Exploring the sculptural qualities of malleable materials and natural objects; developing the use of tools and joining techniques; designing and making clay animal sculptures.

		materials and joining techniques in the junk modelling area.	to design and sew their own bookmarks.		They learn about the different features of boats and ships before investigating their shape and structures to build their own.	
--	--	--	--	--	--	--

Year A DT in Class 2: Year 1 & 2

	Autumn		Spring		Summer	
Year 1 & 2	<u>Painting and mixed media: Life in colour</u> ART & DESIGN Developing colour mixing skills, learning about the work of artist Romare Bearden and creating textured papers using paint, children compose collages inspired by their exploration of colour and texture in the world around them.	<u>Mechanisms: Making a moving monster</u> DESIGN TECHNOLOGY Explore levers, linkages and pivots through existing products and experimentation, use this research to construct and assemble a moving monster.	<u>Structures: Baby Bear's Chair</u> DESIGN TECHNOLOGY Exploring stability and methods to strengthen structures, the children identify the weaknesses in the Bear's chair and develop an improved solution for him to use.	<u>Craft and design: Map it out.</u> ART & DESIGN Responding to a design brief, children learn different techniques for working creatively with materials and at the end of the project, evaluate their design ideas.	<u>Sculpture and 3D: Clay houses.</u> ART & DESIGN Exploring the way clay can be shaped and joined, children learn a range of essential skills for working with this medium. They learn about the sculpture of Rachel Whiteread and create their own clay house tile in response.	<u>Mechanisms: Fairground wheel</u> DESIGN TECHNOLOGY Building a rotating fairground wheel with a free-standing structure, this unit offers a simplified wheel design made from repurposed materials and an additional lesson where children design and conduct a survey to gather opinions.

Year A DT in Class 3: Year 3 & 4

	Autumn		Spring		Summer	
Year 3 & 4	<u>Painting and mixed media: Prehistoric paintings</u> ART & DESIGN Discovering how and why our ancient ancestors made art, experimenting with	<u>Digital World: Wearable technology</u> DESIGN TECHNOLOGY Designing digital wearable technology and developing a program and housing	<u>Electrical systems: Torches</u> DESIGN TECHNOLOGY Identify the difference between electrical and electronic products. Evaluate a range of	<u>Drawing: Developing Drawing Skills</u> ART & DESIGN Developing shading skills and drawing techniques to create botanical-inspired digital drawings.	<u>Craft and design: Fabric of nature</u> ART & DESIGN Using the flora and fauna of tropical rainforests as a starting point, children develop	<u>Structure: Pavilions</u> DESIGN TECHNOLOGY Investigating and modelling frame structures, the children explore ways to improve

	natural materials to make homemade paints and playing with scale to paint on a range of surfaces.	for a Micro:bit, this unit includes new teacher and pupil videos, with an increased focus on evaluation and the use of a virtual Micro:bit.	existing torches and their features, then develop a new functional torch design.		drawings through experimentation and textile-based techniques to design a repeating pattern suitable for fabric.	stability, then apply their understanding to design, build and decorate a stable pavilion.
--	---	---	--	--	--	--

Year A DT in Class 4: Year 5 & 6

	Autumn		Spring		Summer	
Year 5 & 6	<u>Drawing: Depth, emotion and movement</u> ART & DESIGN Exploring mark making for showing depth, emotion and movement.	<u>Textiles Waistcoat</u> DESIGN TECHNOLOGY Using a combination of textile skills such as attaching fastenings, appliqué and decorative stitches, the children design, assemble and decorate a waistcoat for a chosen purpose.	<u>Structures: Bridges</u> DESIGN TECHNOLOGY Testing and analysing different bridges to determine their strength and stability. Exploring material properties and sources, before marking, sawing and assembling a wooden truss bridge.	<u>Painting and mixed media: Artist Study</u> ART & DESIGN Exploring a selection of paintings through art appreciation activities. Collecting ideas in sketchbooks and planning for a final piece after researching the life, techniques and artistic intentions of an artist that interests them.	<u>Cooking and Nutrition: Come Dine with Me</u> DESIGN TECHNOLOGY Selecting three recipes to create a three-course meal, this unit includes new lessons that explore basic tastes and complementary flavours.	<u>Sculpture and 3D: Making Memories</u> ART & DESIGN Creating a personal memory box using a collection of found objects and hand-sculptured forms, reflecting primary school life with symbolic and personal meaning.

