

	Autumn	Spring	Summer
<b>EYFS 1</b>	<b>Design Technology Expressive art and design - Creating with materials</b>		
	Children in Pre School develop their skills in creating with materials by learning through <b>independent play</b> as well as through guided sessions. They will safely learn <b>skills</b> using <b>scissors, paintbrushes, playdough modelling tools and construction</b> . These skills will be <b>modelled</b> and broken down into <b>small chunks</b> of learning. Children will use these basic skills to <b>construct</b> ideas from their <b>own imagination</b> . Children will learn basic <b>joining techniques</b> which will allow them to begin to build models or add to their initial design, such as making pet leads during our 'Precious Pets' topic in term 2. The skills will underpin future learning and continue to progress as they move into the reception year in school.		
<b>EYFS 2</b>	<b>Design Technology (Expressive art and design - Creating with materials)</b>		
	Children in our Reception classes begin to develop their understanding of Design and Technology from the very beginning. Through the <b>safe</b> use of scissors, paintbrushes, playdough modelling tools and construction, children learn 'the best tools for the job'. Throughout the year, children have access to a well-resourced creative area where they <b>design</b> and <b>make</b> their own models; it is here they <b>discover</b> the joys of PVA glue compared to a glue stick or masking tape compared to sticky tape. In term 1, the children are given the opportunity to explore their new creative area and begin to experiment with different ways of joining materials. Term 2, allows time for the children to begin to research the different items that astronauts would take to the Moon and then recreate that themselves using recyclable materials. In Term 3 during their 'Where in the World' topic the children will create their own moving animals, selecting the tools they need to join their components together and in Term 5, they design and build homes for bugs, butterflies and other creatures that they discover during their 'Amazing Changes' topic. In Term 6 the children design boats for Pirates and are encouraged to articulate a rationale for their designs. Throughout the year, daily Plan, Do and Review sessions where children <b>plan</b> and <b>critically evaluate</b> their ideas, help to develop the essential critical thinking skills that are required for later success in their Design and Technology learning.		
<b>Year 1</b>	<b>Structures: Windmill</b>	<b>Mechanisms: Moving storybook</b>	<b>Cooking and Nutrition: Fruit and Vegetables</b>
	Inspired by the song, 'Mouse in a windmill', design and construct a windmill for a client (mouse) to live in. Explore various types of windmill, how they work and their key features.	Explore slider mechanisms and the movement they output, to design, make and evaluate a moving storybook from a range of templates.	Learn to distinguish between fruit and vegetables and where they grow. Design a fruit and vegetable smoothie and accompanying packaging.
<b>Year 2</b>	<b>Mechanisms: Moving monster</b> Adapted to make a moving vehicle	<b>Textiles: Pouches</b>	<b>Cooking and nutrition: A balanced diet</b>
	Explore levers, linkages and pivots through existing products and experimentation, use this research to construct and assemble a moving vehicle.	Learn how to sew a running stitch ready to design, make and decorate a pouch using a template.	Learn about the food groups (carbohydrates, proteins, fruits and vegetables, dairy, oils and spreads) to understand a balanced diet to develop a healthy wrap.
<b>Year 3</b>	<b>Cooking and Nutrition: Eating Seasonally</b>	<b>Structures: Constructing a building</b>	<b>Textiles: Cushions</b> Adapted to make an appliqué wall hanging
	Learn about various fruits and vegetables, and when, where and why they are grown in different seasons. Discover the relationship between colour and health benefits.	Identify and learn about geometric shapes needed to create a stable Tudor House, before designing and making a recycled-material structure.	Learn and apply two new sewing techniques – cross-stitch and appliqué. Utilise these new skills to design and make an applique wall hanging.
<b>Year 4</b>	<b>Electrical Systems: Torches</b>	<b>Digital World: Mindful moments timer</b>	<b>Mechanical Systems: Slingshot car</b>
	Identify the difference between electrical and electronic products. Evaluate a range of existing torches and their features, then develop a new functional torch design.	Explore what is meant by mindfulness and write design criteria to fulfil a brief to develop a programmed product for timing a mindful moment.	Design and make a car with a working slingshot mechanism and house the mechanism using a range of nets.
<b>Year 5</b>	<b>Structures: Playgrounds</b>	<b>Digital World (4): Monitoring devices</b> <b>Cooking and Nutrition (3): What could be healthier?</b>	<b>Mechanical Systems: Pop-up book</b>
	Design, make and evaluate a climbing frame for an adventure playground at Sherford. During this unit, children will investigate how a frame structure is designed and strengthened and incorporate these ideas into their own designs for a climbing frame	Apply Computing knowledge and understanding to program a Micro: bit animal monitoring device. Develop 3D CAD skills by learning how to navigate the Tinkercad interface and essential tools to combine multiple objects. Discover the farm to fork process, understand the key welfare issues for rearing cattle. Compare the nutritional value of existing sauces and develop a healthier recipe.	Create a functional four-page pop-up storybook design, using lever, sliders, layers and spacers to create paper-based mechanisms.

Year 6	Textiles: Waistcoats	Electrical Systems: Steady hand game	Cooking and Nutrition: Come dine with me
	Using a combination of textiles skills such as attaching fastenings, appliqué and decorative stitches, design, assemble and decorate a waistcoat for a chosen purpose.	Understand what is meant by fit for purpose design and form follows function. Design and develop a steady hand game using a series circuit, including housing and backboard.	Develop a three-course menu focused on three key ingredients, as part of a paired challenge to develop the best class recipes. Explore each key ingredient's farm to fork process.