

Design and Technology Cycle A - KS1

Throughout the year the children will cover a variety of aspects of the design and technology curriculum to ensure all children:

- 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.

<p>Autumn 2</p>	<p>Mechanisms – Levers and sliders Can you make a toy for a toddler with a lever or slider?</p> <ul style="list-style-type: none"> • Research levers and explore how different levers work • Research toddler toys that use levers • Design their own toy • Make their toy • Evaluate their toy 	<p>Developing, planning and communicating ideas Start to generate ideas by drawing on their own and other people's experiences. Begin to develop their design ideas through discussion, observation, drawing and modelling. Identify a purpose for what they intend to design and make. Understand how to identify a target group for what they intend to design and make based on a design criterion. Develop their ideas through talk and drawings and label parts. Working with tools, equipment, materials and components to make quality products Begin to select tools and materials; use correct vocabulary to name and describe them. With help measure, cut and score with some accuracy. Learn to use hand tools safely and appropriately. Start to assemble, join and combine materials in order to make a product. Start to choose and use appropriate finishing techniques based on own ideas. Evaluating processes and products Evaluate their work against their design criteria. With confidence talk about their ideas, saying what they like and dislike about them.</p>
<p>Spring 2</p>	<p>Structures- Freestanding Structures Design a structure (spaceship) for an alien to land on Mars safely when dropped from a height of 1m.</p>	<p>Children to create their own Rockets Developing, planning and communicating ideas Start to generate ideas by drawing on their own and other people's experiences. Begin to develop their design ideas through discussion,</p>

	<ul style="list-style-type: none"> • Research Mars landers – the features of the real Mars landers- why did one fail and why was one successful? • Learn to draw a Mars lander • Learn about strong structures and strong materials • Design own space lander • Make it • Evaluate it 	<p>observation, drawing and modelling. Understand how to identify a target group for what they intend to design and make based on a design criterion. Develop their ideas through talk and drawings and label parts. Working with tools, equipment, materials and components to make quality products Build structures, exploring how they can be made stronger, stiffer and more stable. With help measure, cut and score with some accuracy. Start to assemble, join and combine materials in order to make a product. Start to choose and use appropriate finishing techniques based on own ideas. Evaluating processes and products Evaluate their work against their design criteria. Start to evaluate their products as they are developed, identifying strengths and possible changes they might make. With confidence talk about their ideas, saying what they like and dislike about them.</p>
Summer 1	<p>Food and Nutrition- Preparing fruit and vegetables Make a snack for a Rainforest Orangutan that is on the move</p> <ul style="list-style-type: none"> • Research fruits from the Rainforest • Research what monkeys eat • Explore fruits- taste and texture of the fruits • Research and explore snacks and healthy trail mix • Design their snack (think about being on the move test moving over obstacles) • Teach peeling, cutting and chopping skills • Make their snack, test it on the move • Evaluate it 	<p>Food and Nutrition To begin to understand where food comes from. Understand how to name and sort foods into the 5 groups. 'Eat well plate' Know that everyone should eat 5 portions of fruit and veg a day. Demonstrate how to prepare simple dishes safely and hygienically. Demonstrate how to cut and peel. Working safely and hygienically with equipment and ingredients Begin to select equipment and ingredients; use correct vocabulary to name and describe them. With help peel and cut. Evaluating processes and products Start to evaluate their work against their design criteria. With confidence talk about their ideas, saying what they like and dislike about them.</p>