



Curriculum Long Term Plan Design and Technology

	Autumn	Spring	Summer
Nursery	<p>Explore collections of materials with similar and/or different properties (UTW)</p> <p>Join different materials and explore different textures. EAD</p> <p>Provision- Joining Methods (glue, blu-tac, threading), collage materials with different textures</p>	<p>Talk about the differences between materials, objects, and living things (UTW)</p> <p>Explore how things work and different forces. UTW</p> <p>Choose the right resources to carry out their own plan. For example, choosing a spade to enlarge a small hole they dug with a trowel. PD</p> <p>Explore different materials freely, to develop their ideas and apply meaning to something after they have made it eg sticking things together then saying "it's a robot" EAD</p> <p>Provision- Variety of commercial building kits, including those with moving parts eg wheels, ramps, marble run Playdough/ outdoor tools Introducing Scissors and Junk Modelling.</p>	<p>Use what they have noticed about how things work to achieve an end eg noticing that the cars need a steeper ramp to roll down without help (UTW)</p> <p>Develop their own ideas in advance or during a making process and then decide which materials to use to express them. EAD</p> <p>Provision- Ideas wall, making challenges I am making a ____ planners. Junk modelling.</p>
Reception	Making a Fruit Salad	Structures and Junk Modelling – Building a house for The Three Little Pigs.	Making Boats

<p>To explore and investigate different fruits using the sense of smell and touch. Children to taste the different fruits, talking about how they taste. Children to use a knife to cut the different fruit. Children to create a fruit salad recipe and create their fruit salads to share with the group.</p> <p>Key End Points: By the end of this unit children will be able to: <u>Communication and language</u> -Learn new vocabulary. <u>Personal, social and emotional development</u> -Know and talk about the different factors that support their overall health and wellbeing: healthy eating. -ELG: Managing self- Manage their own basic hygiene and personal needs, including... understanding the importance of healthy food choices. <u>Physical development</u> -Develop small motor skills so that they can use a range of tools competently, safely and confidently. -ELG: Use a range of small tools, including scissors, paint brushes and cutlery. <u>Understanding the world</u> -Explore the natural world around them. -ELG: The Natural World-Explore the natural world around them,</p>	<p>To explore and investigate the tools and materials in the junk modelling area. To develop scissor skills and investigate cutting different materials. To learn how to plan and select the correct resources needed to make a model. Pupils put all of the skills and decisions into practice by developing their own unique junk model house plan, which includes which tools, materials and components they will need to make it possible. Following their plan, pupils continue to build their junk models, sticking as closely to their decisions as possible. When complete, pupils discuss and evaluate their finished model and present it to the rest of the class.</p> <p>Key End Points: By the end of this unit children will be able to: <u>Physical development</u> -Develop small motor skills so that they can use a range of tools competently, safely and confidently. -ELG: Fine Motor Skills- Use a range of small tools, including scissors, paint brushes and cutlery. <u>Expressive Arts and Design</u> -Return to and build on their previous learning, refining ideas and developing their ability to represent them. -ELG: Creating with materials- Safely use and explore a variety of</p>	<p>To understand what waterproof means and to test whether materials are waterproof. To test and make predictions for which materials float or sink. To compare the uses of boats. To investigate how the shape and structure of boats affects the way they move. Applying what they have learnt, the children discuss what would make a successful boat. They sketch, and discuss with their peers, their design ideas for their own boats. Pupils build the boat models they designed. Test and evaluate their boats on the water, with increasing cargo and reflect on what could have been improved about the design.</p> <p>Key End Points: By the end of the unit children will be able to: <u>Communication and language</u> -Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. -ELG: Speaking- Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary. -ELG: Speaking- Offer explanations for why things might happen.</p>
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	<p>making observations and drawing pictures of animals and plants.</p>	<p>materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p>-ELG: Creating with materials- Share their creations, explaining the process they have used.</p> <p>Making Soup</p> <p>To explore fruits and vegetables and the differences between them.</p> <p>To use adjectives to describe how fruits and vegetables look, feel, smell and taste.</p> <p>To listen to and recall elements from the story 'The Best Pumpkin Soup.'</p> <p>To explore a pumpkin and describe it using the five senses.</p> <p>To design a fruit and vegetable soup recipe.</p> <p>The children work in groups to practise their fine motor skills to slice and chop play dough, ready to help prepare their vegetables next lesson.</p> <p>To observe and help (where appropriate) with the use of tools to prepare ingredients.</p> <p>To describe the finished product and evaluate the process.</p> <p>The children become packaging designers in this lesson and look at existing soup packaging before generating their own ideas and designs for the class soup.</p>	<p><u>Expressive Arts and Design</u></p> <p>-ELG: Creating with materials- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p>-ELG: Creating with materials- Share their creations, explaining the process they have used.</p>
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Year 1	Tasting fruits and Vegetables- Making a smoothie	<p>Moving Story Book</p> <p>Explaining how to adapt mechanisms, using bridges or guides to control the</p>	<p>Making Puppets</p> <p><u>To join fabrics together using different methods.</u></p>

	<p>Designing smoothie carton packaging by-hand. Chopping fruit and vegetables safely to make a smoothie. Juicing fruits safely to make a smoothie. Tasting and evaluating different food combinations. Describing appearance, smell and taste. Suggesting information to be included on packaging. Comparing their own smoothie with someone else's.</p> <p>Key End Points By the end of the unit children should be able to-</p> <ul style="list-style-type: none"> • To know that a blender is a machine which mixes ingredients together into a smooth liquid. • To know that a fruit has seeds. • To know that fruits grow on trees or vines. • To know that vegetables can grow either above or below ground. • To know that vegetables is any edible part of a plant (e.g. roots: potatoes, leaves: lettuce, fruit: cucumber). 	<p>movement. Designing a moving story book for a given audience. Following a design to create moving models that use levers and sliders. Testing a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed. Reviewing the success of a product by testing it with its intended audience.</p> <p>Key End Points By the end of the unit children will be able to:</p> <ul style="list-style-type: none"> • To know that a mechanism is the parts of an object that move together. • To know that a slider mechanism moves an object from side to side. • To know that a slider mechanism has a slider, slots , guides and an object. • To know that bridges and guides are bits of card that purposefully restrict the movement of the slider • To know that in Design and technology we call a plan a 'design'. 	<p>Children to recap the different techniques that can be used to join fabrics for different purposes. Children to join fabric by pinning, stapling or gluing. Children to design and use a template to create a puppet. Children to learn how to separate the paper template from the fabric (remove and collect in the pins) and place the two pieces on top of each other to match up perfectly. Now, they can join them together. Children to understand how to staple, pin or glue close to the edge to allow enough space for a hand but not too close to spoil the edges. Children to use chalk or a pen to mark where they should put the glue on the fabric, leaving enough room for them to put their hand inside the puppet. The children should use pegs or clips to secure the fabric while the puppet dries.</p> <p>Key end points By the end of the unit children should be able to-</p> <ul style="list-style-type: none"> • To know that 'joining technique' means connecting two pieces of material together.
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Year 2	Making Fruit Kebabs / eating seasonally <ul style="list-style-type: none"> • Designing a recipe for a fruit kebab. • Following the instructions within a recipe. • Tasting seasonal ingredients. • Selecting seasonal ingredients. • Peeling ingredients safely. • Cutting safely with a vegetable knife 	Making a Bog Baby <ul style="list-style-type: none"> • Designing a pouch. • Selecting and cutting fabrics for sewing. • Decorating a pouch using fabric glue or running stitch. • Threading a needle. 	Building a Ferris Wheel <ul style="list-style-type: none"> • Selecting a suitable linkage system to produce the desired motion. • Designing a wheel. • Selecting materials according to their characteristics. • Following a design brief

	<ul style="list-style-type: none"> • Establishing and using design criteria to help test and review dishes. • Describing the benefits of seasonal fruits and vegetables and the impact on the environment. • Suggesting points for improvement when making a fruit kebab. <p>Key Points By the end of the unit children will be able to:</p> <ul style="list-style-type: none"> • To know that not all fruits and vegetables can be grown in the UK. • To know that climate affects food growth. • To know that vegetables and fruit grow in certain seasons. • To know that cooking instructions are known as a 'recipe'. • To know that imported food is food which has been brought into the country. • To know that exported food is food which has been sent to another country.. • To know that eating seasonal foods can have a positive impact on the environment. • To know that similar coloured fruits and vegetables often have similar nutritional benefits. • To know that the appearance of food is as important as taste. 	<ul style="list-style-type: none"> • Sewing running stitch, with evenly spaced, neat, even stitches to join fabric. • Neatly pinning and cutting fabric using a template • Troubleshooting scenarios posed by teacher. • Evaluating the quality of the stitching on others' work. • Discussing as a class, the success of their stitching against the success criteria. • Identifying aspects of their peers' work that they particularly like and why. <p>Key End Points By the end of the unit children will be able to:</p> <ul style="list-style-type: none"> • To know that sewing is a method of joining fabric. • To know that different stitches can be used when sewing. • To understand the importance of tying a knot after sewing the final stitch. • To know that a thimble can be used to protect my fingers when sewing. 	<ul style="list-style-type: none"> • Evaluating different designs. • Testing and adapting a design. <p>Key End Points By the end of the unit children will be able to:</p> <ul style="list-style-type: none"> • To know that different materials have different properties and are therefore suitable for different uses. • To know the features of a ferris wheel include the wheel, frame, pods, a base an axle and an axle holder. • To know that it is important to test my design as I go along so that I can solve any problems that may occur.
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Working in Design and Technology in KS1. Children will develop the following skills across the Key Stage...

Posing Questions:

Exploring the world around them and raising their own simple questions.
Recognising there are different types of enquiry (ways to answer a question).
Responding to suggestions on how to answer questions.

Planning: Beginning to recognise whether a test is fair.

With support, deciding if suggested observations are suitable.
Ordering a simple method.

Predicting:

Suggesting what might happen, often justifying with personal experience.

Observing:

Using their senses to describe, in simple terms, what they notice or what has changed.

Measuring:

Using non-standard units to measure and compare.
Beginning to use standard units to measure and compare.
Beginning to use simple measuring equipment to make approximate measurements.
Reading simple numbered scales.

Researching:

Gathering specific information from one simplified, specified source.

Recording:

Drawing and labelling simple diagrams.
Using a prepared table to record results including:

- Numbers.
- Simple observations.
- Tally frequency.

Grouping & Classifying:

Grouping based on visible characteristics.
Organising questions to create a simple classification key.

Graphing:

Representing data using pictograms and block charts.

Analysing & drawing conclusions:

Using their results to answer simple questions.
Beginning to recognise when results or observations do not match their predictions.

Evaluating:

Beginning to recognise whether a test is fair or not.

Key Texts:

<p>The Bog Baby</p> 	<p>The Three Little Pigs</p> 	<p>The Three Little Pigs</p> 	<p>Handa's Surprise.</p> 	<p>Oliver's Vegetables</p> 	<p>Jasper's Beanstalk— Nick Butterworth</p> 
<p>Oliver's Fruit Salad</p> 	<p>Kitchen Disco</p> 	<p>Brilliant Boats</p> 	<p>Port Side Pirates</p> 	<p>Once There were Giants by Martin Waddell and Penny Dale</p> 	<p>Jack and the Beanstalk.</p> 