



	Year 3	Subject: DT	
Knowledge and Understanding Progression	<p>Autumn 2 Topic: <u>Sheet - photo frames</u></p> <p>Knowledge:</p> <ul style="list-style-type: none"> ➤ Looking at different ways in which to make frames stand up and why the final finish is so important. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none"> ✓ cut slots and internal shapes with some accuracy? ✓ assemble, join and combine materials with some accuracy? ✓ make strong, stiff shell structures? ✓ apply a range of finishing techniques? ✓ select materials and components suitable for the task. 	<p>Spring 2 Topic: <u>Textiles - pencil cases</u></p> <p>Knowledge:</p> <ul style="list-style-type: none"> ➤ Looking at different ways in which textiles can be joined and how these ways aren't appropriate to all designs. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none"> ✓ explain why we need a seam allowance ✓ join fabrics using a variety of stitches? ✓ explore fastenings and recreate some (eg sew on buttons and make loops? ✓ explain the need or patterns and create simple ones in order to use appropriate decoration? 	<p>Summer 2 Topic: <u>Construction - Lighthouses</u></p> <p>Knowledge:</p> <ul style="list-style-type: none"> ➤ Looking at how a circuit works and can be used in a working model. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none"> ✓ include a circuit with a bulb or buzzer into a model to create a functional product? ✓ create shell or frame structures? ✓ make structures more stable by giving them a wide base? select materials and components suitable for the task?



<u>Developing, planning and communicating ideas</u>	<u>Evaluating</u>
<p>Knowledge</p> <ul style="list-style-type: none">➤ the age-appropriate processes involved when developing and sharing ideas. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none">✓ investigate similar products to the one to be made to give starting points for a design?✓ draw/sketch products to help analyse and understand how products are made?✓ think ahead about the order of my work and decide upon tools and materials?✓ plan a sequence of actions to make a product?✓ record the plan by drawing or writing?	<p>Knowledge</p> <ul style="list-style-type: none">➤ the age-appropriate processes involved when evaluating designs and products. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none">✓ identify strengths and weaknesses of my design ideas?✓ decide which ideas to develop, if any, as I go along?✓ use my design plan to evaluate my completed product?



	Year 4	Subject: DT	
Knowledge and Understanding Progression	<p>Autumn 1 Topic: <u>Construction - volcanoes (linked to the Science topic on rocks and Geography topic on landforms.)</u></p> <p>Knowledge:</p> <ul style="list-style-type: none"> ➤ Looking at how pneumatics work and how they can make moving structures. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none"> ✓ create shell or frame structures? ✓ make structures more stable by giving them a wide base? ✓ select materials and components suitable for the task? ✓ make prototypes of frame and shell structures? ✓ measure and mark square section, strip and dowel accordingly to 1cm? ✓ use a glue gun with adult supervision? 	<p>Autumn 2 Topic: <u>Food - cookies (linked to the Geography topic on the Americas)</u></p> <p>Knowledge:</p> <ul style="list-style-type: none"> ➤ Looking at what constitutes a balanced diet and how seasonal food items can be used to create other foods. <p>Skills - Can I:</p> <ul style="list-style-type: none"> ✓ develop my vocabulary and my knowledge when describing a food's smell, taste, texture and feel? ✓ analyse the taste, texture, smell and appearance of a range of foods? ✓ make healthy eating choices from an understanding of a balanced diet? ✓ join and combine a range of ingredients? ✓ work safely and hygienically? ✓ measure and weigh ingredients appropriately? 	<p>Spring 1 Topic: <u>Sheet - pop-up books</u></p> <p>Knowledge:</p> <ul style="list-style-type: none"> ➤ Looking at different ways in which to create pop-ups and when specific structures are most appropriate. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none"> ✓ measure, mark and cut slots and internal shapes accurately? ✓ use lolly sticks/card to make levers and linkages? ✓ use linkages to make movement larger or more varied? ✓ assemble, join and combine materials with some accuracy? ✓ apply a range of finishing techniques? ✓ select materials and components suitable for the task.



<p style="text-align: center;"><u>Developing, planning and communicating ideas</u></p> <p>Knowledge</p> <ul style="list-style-type: none">➤ the age-appropriate processes involved when developing and sharing ideas. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none">✓ investigate similar products to the one to be made to give starting points for a design?✓ develop more than one adaptation of an initial design?✓ propose realistic suggestions as to how I can achieve my design ideas?✓ explain my choice of materials and add notes to drawings to help explanations?	<p style="text-align: center;"><u>Evaluating</u></p> <p>Knowledge</p> <ul style="list-style-type: none">➤ the age-appropriate processes involved when evaluating designs and products. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none">✓ refer to my design plan as I make my product but alter it if I need to?✓ think about and explain how the finished product could be improved? <p>discuss how well the finished product meets the design criteria and how well it meets the needs of the user?</p>
<p><u>Additional:</u> Alternative construction = Roman catapults or Moving Monsters. Alternative food = seasonal foods.</p>	



	Year 5	Subject: DT	
Knowledge and Understanding Progression	<p>Autumn 1 Topic: <u>Construction - Planetarium cams project (linked to Science topic on Earth and Space)</u></p> <p>Knowledge:</p> <ul style="list-style-type: none"> ➤ Looking at how a cams system works and the effects on a working model. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none"> ✓ use a bradawl to mark hole positions? ✓ use a hand drill to drill tight and loose fit holes? ✓ cut strip wood, dowel, square section wood accurately to 1mm? ✓ use a cam to make an up and down mechanism? ✓ join materials using appropriate methods? ✓ understand how mechanical systems create movement? 	<p>Spring 1 Topic: <u>Sheet - Musical instruments</u></p> <p>Knowledge:</p> <ul style="list-style-type: none"> ➤ Looking at the sounds different materials can create and how that can be translated to different instruments. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none"> ✓ cut accurately and safely to a marked line? ✓ join and combine materials with temporary, fixed or moving joints? ✓ recognise that materials have functional properties and aesthetic qualities? 	<p>Summer 1 Topic: <u>Textiles - tapestry of global biomes</u></p> <p>Knowledge:</p> <ul style="list-style-type: none"> ➤ Looking at different ways in which textiles can be joined (and alternatives to Year 3) and the most appropriate ways to the design in question. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none"> ✓ create 3D products using pattern pieces and seam allowance? ✓ understand pattern layout? ✓ decorate textiles appropriately often before joining components? ✓ pin and tack fabric pieces together? ✓ join fabrics using a range of different stitches? ✓ combine fabrics to create more useful properties? ✓ make quality products?



<u>Developing, planning and communicating ideas</u>	<u>Evaluating</u>
<p>Knowledge</p> <ul style="list-style-type: none">➤ the age-appropriate processes involved when developing and sharing ideas. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none">✓ investigate products or images to collect ideas?✓ sketch and model alternative ideas?✓ develop one idea in depth?✓ combine modelling and drawing to refine ideas?✓ plan a sequence of work using a story board?✓ record ideas using annotated diagrams?	<p>Knowledge</p> <ul style="list-style-type: none">➤ the age-appropriate processes involved when evaluating designs and products. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none">✓ use the design criteria to help me to decide how to move forward?✓ justify my decisions about the materials that I used?✓ critically evaluate the quality of my design and whether it was fit for purpose?



	Year 6	Subject: DT	
Knowledge and Understanding Progression	<p>Autumn 2 Topic: <u>Sheet - Bird houses</u> <u>(linked with Science unit on Evolution and Inheritance)</u></p> <p>Knowledge</p> <ul style="list-style-type: none"> ➤ Looking at how to cut and join materials to create a structure fit for purpose. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none"> ✓ choose an appropriate sheet material for the purpose? ✓ use a craft knife, cutting mat and safety ruler under one-to-one supervision if appropriate? ✓ use a glue gun with supervision? ✓ understand how to reinforce and strengthen a 3D framework. 	<p>Summer 1 Topic: <u>Construction - Fairground rides</u> <u>(linked with Lunar Park Maths project).</u></p> <p>Knowledge</p> <ul style="list-style-type: none"> ➤ Looking at how to create a working circuit to be placed in a framework made from a chosen material. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none"> ✓ incorporate a motor and a switch into a model? ✓ control a model using an ICT control programme? ✓ build a framework using a range of materials to support mechanisms? ✓ use a glue gun with supervision? ✓ understand how more complex electrical circuits can be used to create functional products. 	<p>Summer 2 Topic: <u>Food - Fair trade recipes</u> <u>(linked to Geography topic on fair trade and Enterprise Week).</u></p> <p>Knowledge</p> <ul style="list-style-type: none"> ➤ Looking at where different foods come from and the hygiene measures necessary when preparing them. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none"> ✓ taste a range of ingredients to develop a sensory food vocabulary for use when designing? ✓ select and prepare foods for a particular purpose? ✓ weigh and measure using scales? ✓ join and combine food ingredients appropriately? Eg beating, rubbing in etc. ✓ work safely and hygienically? ✓ show an awareness of a healthy and balanced diet? ✓ understand that seasons may affect the food available.



<u>Developing, planning and communicating ideas</u>	<u>Evaluating</u>
<p>Knowledge</p> <ul style="list-style-type: none">➤ the age-appropriate processes involved when developing and sharing ideas. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none">✓ investigate products by using models, kits and drawings to help formulate design ideas?✓ make prototypes?✓ use found information to inform decisions?✓ use a computer to model ideas?✓ draw plans which can be read and followed by someone else?✓ give a report using correct technical vocabulary?	<p>Knowledge</p> <ul style="list-style-type: none">➤ the age-appropriate processes involved when evaluating designs and products. <p>Skills</p> <p>- Can I:</p> <ul style="list-style-type: none">✓ reflect on my work using the design criteria and say how well my design fits the needs of the user?✓ critically evaluate the quality of my product and whether it was fit for purpose?✓ make suggestions as to how my design could be improved?