



Year 4 Medium Term Planning for the Learning Challenge Curriculum

Term: Summer

DT Project: Kites

<u>Previous Learning</u>	<u>New Knowledge /Consolidation</u>	<u>End of Project Outcome</u>	<u>Environmental Links</u>	<u>Key Inventors/People</u>	<u>Project Vocabulary</u>
<p>Strengthening using cladding (+ introducing rendering) building on the use of tabs & brackets to create a prototype (elf house, photo frame, lunch box). Use of cardboard nets & templates.</p>	<p>Combining materials (Wood, paper, plastic) to create (joining) and strengthen a frame.</p> <p>Application of cladding and rendering.</p>	<p>To measure, cut and join materials with different properties to create a kite that flies.</p>	<p>What is the difference between upcycling and recycling? Discuss how products can be re-purposed Read somebody swallowed Stanley! By Sarah Roberts What else can a plastic bag be turned into? Create a mood board using MS Publisher.</p>	<p>When was the kite invented? Watch a history of kites: https://www.youtube.com/watch?v=oM2vSWuVGHg</p>	<p>Investigate & Compare Preparation CAD (Computer Aided Design) Assemble Components Properties Finish Precision Mark out Reinforce Functional Review & Evaluate Reusable & Recycle</p>

Section	Lesson	Key Skills	Learning Objective & Activity
Explore	1	<ul style="list-style-type: none"> Evaluate existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose Use research for design ideas Explain how product will work 	<p><u>To investigate different shaped kites and why they fly.</u> Explore examples of different shaped kites. What do they have in common? Discuss how the sheet is slightly larger than the frame to allow air to get trapped. The science of kites: https://www.youtube.com/watch?v=NEv1HMX73N0 When was the kite invented? Watch a history of kites: https://www.youtube.com/watch?v=oM2vSWuVGHg</p>
Plan	1 & 2	<ul style="list-style-type: none"> Show how a design meets a range of requirements and is fit for purpose Begin to create their own design criteria, with support Have at least one idea about how to create product and suggest improvements for its design. 	<p><u>To consider what materials to use as a frame for a kite and why they are suitable.</u> Consider as class what is needed to create a successful kite and create a design criterion. Decide between using straws, plastic or wooden skewers to create a frame for a kite. Explain why this material has been chosen. Use pens to sketch out the shape and size of the sheet (+ decoration).</p>

		<ul style="list-style-type: none"> • Include an annotated sketch as part of the design process • Make and explain design decisions considering availability of resources • Use a range of media to show the design including ICT software. 	<p>Consider how the frame can be joined to the sheet and select methods to attach. Consider how to improve and strengthen.</p> <p>What will Seesaw template provided and text tool used to add notes.</p>
Make	3	<ul style="list-style-type: none"> • Select suitable tools and equipment, explain choices in relation to required techniques and use accurately & select appropriate materials, fit for purpose; explain choices • Select appropriate materials, fit for purpose; explain choices. • Work through a plan in order. • Realise if the product is going to be good quality and adjust accordingly • Measure, mark out, cut and shape materials and components with some accuracy • Assemble, join and combine materials and components with some accuracy • Apply a range of finishing techniques with some accuracy • Measure accurately and carefully to avoid mistakes • Strengthen and reinforce products using joining, hammering, overlapping, layering. • Reapply cladding and rendering to strengthen a product within a different context. • Use finishing techniques • Refer to design criteria while designing and making 	<p><u>To measure, cut and join materials with different properties to create a kite that flies.</u></p> <p>Use "How to" PowerPoint to follow steps to: Cut sticks or straws to a chosen size and attach the create a cross frame. Mark out and measure a carrier bag to create a sheet that is slightly larger than the frame. Combine materials to attach/join the sheet to the frame. Shape offcuts of the plastic bag to create a tail. Attach string and create a handle.</p>
Evaluate	4	<ul style="list-style-type: none"> • Use criteria to evaluate product • Begin to explain how I could improve original design • Consider and appreciate whether products can be recycled or reused, drawing on previous experience and understanding. 	<p><u>To consider if the kite meets the design criteria, how materials can be upcycled.</u></p> <p>How would you change your kite? Mind map as a class. Revisit design criteria and tick off if you kite meets each point (Seesaw template). Insert a photo of the completed Kite into the Seesaw template. What is the difference between upcycling and recycling? Discuss how products can be re-purposed Read somebody swallowed Stanley! By Sarah Roberts Book or video (Bedtime Stories - https://www.bbc.co.uk/iplayer/episodes/b00jdlm2/cbeebies-bedtime-stories)</p>

			What else can a plastic bag be turned into? Create a mood board using MS Publisher.
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Substantive Knowledge	Disciplinary Knowledge
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