



Kindness

Positivity

Respect

<u>SUBJECT MEDIUM TERM PLANNING</u>		
Year Group: Y3	TERM: Autumn 2	Theme: Design and make a wooden photo frame
<p>National Curriculum: Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.</p>		
<p>Context In this unit, we want children to use research and develop a success criteria to inform the design of a wooden photo frame. The children will select and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. They will apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Finally they will accurately evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p>Concepts: Investigating stable structures in our modern society - Rigid, balanced and strong. They investigate different frames and make prototypes. Design a photo frame Make – Use tools and resources safely and appropriately Evaluate - Discuss how closely their finished product meets their design criteria and how well it meets the needs of the user</p>	<p>Vocabulary: structure, stable, prototype, success criteria, jinx method, reinforce, rigid, design, annotate</p>
<p>Prior Knowledge: In Year 2, children will have looked at researching and developing a success criteria to inform the design of a vehicle using wheels and axles. They have been building structures, exploring how they can be made stronger, stiffer and more stable.</p>	<p>Future Knowledge: They will enhance their skills in applying their understanding of how to strengthen, stiffen and reinforce more complex structures when it comes to designing and making their own instruments and moving cam models in Years 4 and 5.</p>	

End points /by the end of this unit pupils will..

Understand the criteria needed to make a stable structure.

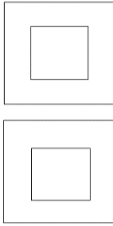
Begin to make strong structures that are stable in nature.

Use and select appropriate materials that inform their design type.

Can use their own personal taste as well as an understanding of what makes a stable structure to evaluate the effectiveness of different products.

Select appropriate tools and techniques to make a wooden photo frame.

Learning Objective	Teaching Input/ Activities	Key Questions	Resources
<p>1 Investigate and explore stable structures</p> <p>Consider what makes a stable structure.</p> <p>Understand how to make a stable structure</p>	<p>Introduce lesson with the idea of making a wooden photo frame in the coming weeks.</p> <p>The children look at stable structures in nature and within the city environment. They use this understanding to build a stable tower from spaghetti.</p> <p>♣ In teams build the tallest most stable structure from 20 pieces of dried spaghetti and 1 small pack of blu tack.</p> <p>5 mins to plan</p> <p>15 mins to make</p> <p>Groups of 3 – remind the children about the importance of using our talents and that everyone has an equally important role to play.</p>	<p>Why do our frames need to be stable?</p> <p>Can you see similarities between these structures?</p> <p>What shapes can you use?</p> <p>What have you learnt about making a stable structure?</p> <p>What shapes are most often used in the building of stable structures?</p> <p>Look at; bridges, towers, buildings, stairs?</p>	<p>20 pieces of dried spaghetti</p> <p>1 small pack of blu tack</p>
<p>2 Investigate different card stands for the photo frames</p>	<p>Children evaluate 3 different styles of frame. From this they create success criteria. To use when designing and making their frame.</p>	<p>There is no triangle shape, is it still stable?</p>	<p>Card</p> <p>Scissors</p>

	<p>♣ Look at 3 different styles of frame with different hanging/standing features - cylinder, triangle and string stand.</p>	<p>Which stand did you like the best and why?</p>	<p>Tape string</p>																								
<p>3 What do we need to think about when designing a photo frame?</p>	<p>Collect evidence in a table. Relate information to forming success criteria</p> <table border="1" data-bbox="875 475 1182 743"> <thead> <tr> <th></th> <th>Frame 1</th> <th>Frame 2</th> <th>Frame 3</th> </tr> </thead> <tbody> <tr> <td>How does it stand up?</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Stability (out of 5)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Who might use it?</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Does it look good and suit the user? (mark out of 5)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>How do you put the photo on?</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Frame 1	Frame 2	Frame 3	How does it stand up?				Stability (out of 5)				Who might use it?				Does it look good and suit the user? (mark out of 5)				How do you put the photo on?				<p>How does it stand up? Who might use it? Does it suit the user? How do you put the photo in? Does it look good and suit the user?</p>	<p>Results table</p>
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<p>4 Children design photo frames based on their strengths / their hobbies & interests. (Photos are taken in costume if appropriate, to put in the finished frame.)</p>	<p>Children complete/sketch two different designs and then choose their favourite.</p> <p style="text-align: center;">My Design Ideas</p>  <p>Having sketched two design ideas for my frame, I chose design number _____ because _____</p>	<p>What might you want your frame to look like? As well as looking good, what else does your frame need to have? Look back at your talents, can you represent these in your photo frame? What about your future job, can you include this in your frame? What do frames tell us about the person who made them? Does your frame tell us something about you? Is it bright and colourful?</p>	<p>Design sheet</p>																								
<p>5 Make the wooden photo frame</p>	<p>Select your favourite design, then make the frame.</p>	<p>How can you cut and join accurately?</p>	<p>Wood -square dowel Saw Bench hook Card</p>																								

	<p>They use the jinx method of reinforcement, use of a bench hook, use of a saw. Reinforcing corners with card triangles.</p> <ul style="list-style-type: none"> ♣ Accurate and safe use of tools; saw, bench hook, wooden/balsa dowel. ♣ Children make a successful pocket for the photo to slip into. ♣ Children use their designs to make and create their decorative cover frame with neoprene. ♣ Children measure and cut accurately and economically. 	<p>Are you pleased with the finished product?</p>	<p>Glue Neoprene frame Card pocket</p>						
<p>6 Evaluate and take a photo to record results.</p>	<p>♣ Evaluate design and stand with 2 stars and a wish.</p> <p style="text-align: center;"><u>My Photo Frame Evaluation</u> Evaluate your photo frame using two stars and a wish.</p> <table border="1" style="width: 100%; height: 100%;"> <tr> <td style="width: 20%; text-align: center;">★</td> <td></td> </tr> <tr> <td style="text-align: center;">★</td> <td></td> </tr> <tr> <td style="text-align: center;">★ ★ ★ ★</td> <td></td> </tr> </table>	★		★		★ ★ ★ ★		<p>How well did the frame meet your success criteria? What two features were you proud of? What one thing would you improve another time?</p>	<p>Evaluation sheet Photo</p>
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