



Structures Year 1

National curriculum	Vocabulary
<p>Design To design purposeful, functional, appealing products for themselves and other users based on design criteria. To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p>Make To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] To select from and use a wide range of materials and components, including construction materials according to their characteristics.</p> <p>Evaluate To evaluate their ideas and products against design criteria To explore and evaluate a range of existing products</p> <p>Technical Knowledge To build structures, exploring how they can be made stronger, stiffer and more stable. To explore and use mechanisms (for example, levers, sliders, wheels and axles), in their product.</p>	<p>Fold Cut Score Bend Join Fix Strong shape Finish Structure Design Make</p>

Investigate Technical knowledge	Design	Make	Evaluate
------------------------------------	--------	------	----------

Year 1

<p>-Draw on their own experience to help generate ideas -Suggest ideas and explain what they are going to do. -Explore and evaluate how existing products work</p>	<p>-Draw a design for a chair/ bed for my toy</p>	<p>-With help measure, mark out, cut and shape a range of materials -Use tools eg scissors and a hole punch safely -Assemble, join and combine materials and components together using a variety of methods.</p>	<p>-Evaluate their product by asking questions about what they have made and how they have gone about it</p>
			<p>Is it strong enough to hold a doll/baby or a bear?</p> <p>Is it the right size for your toy?</p> <p>Does it look appealing?</p>

Learning Objective	Lesson outline
<p>Investigate</p> <p>LO: To look at different toy chairs or beds/ cots.</p> <p>DT Skills: Draw on their own experience to help generate ideas.</p> <p>-Explore and evaluate how existing products work.</p>	<p>Explain they will be designing and making a chair or a bed/cot for a toy. The children will need to bring a toy into school like a bear (soft toy) or a doll.</p> <p>Explain that it needs to be the right size and strong enough to hold the toy (weight). Link to 3 bears. The product has to be designed with the toy in mind.</p> <p>Using a range of real toys (Ask Mrs Knight) and possible catalogues children can match the toy with the right chair/ bed/cot. Could use photographs of the toys and match with correct size furniture and label with material.</p>

<p>Practical skills LO: To experiment and make different structures</p> <p>DT Skills: Draw on their own experience to help generate ideas.</p> <p>-Explore and evaluate how existing products work.</p>	<p>Recap previous DT lesson regarding chair/ bed or cot bed. This is lesson is about looking at how you can bend, roll, fold and join materials to make a structure. Teacher to model how to roll paper, fold and create different structures.</p> <p>Explain that they can use a range of materials for joining including glue, staples and masking tape.</p> <p>Children can use own toy or choose one from the toy box to make a chair/ bed or cot bed. This lesson is about experimenting with materials to make a product/structure (chair/bed).</p> <p>Evaluate during and at the end of the lesson.</p> <p>What material is best for joining materials?</p> <p>How did you bend and fold the materials to make it stronger/ strengthen the structure?</p> <p>Would it hold your toy? Is it strong enough? If you did it again would you do it differently?</p>
<p>Design</p> <p>LO: To design a toy chair or bed for a toy.</p> <p>DT Skills: Draw a picture of their design. Draw on their own experience to help generate ideas.</p>	<p>Explain that they have to decide if they are going to design a chair or a bed for their toy. Explain that they need to think about the size, structure (strong enough to hold the weight) of the toy and it has to look appealing. Adult could demo how to draw a design thinking about a particular toy and what material they would use.</p> <p>Children draw a design for a chair or bed/ cot. Label with materials and possibly write a list of equipment they may use.</p> <p>LA: template for designing chair or bed/ cot</p>
<p>Make</p> <p>LO: To make a chair or a bed/ cot for a toy,</p> <p>DT Skills: With help measure, mark out, cut and shape a range of materials</p> <p>Use tools eg scissors and</p> <p>Assemble, join and combine materials and components together using a variety of methods.</p>	<p>Recap previous lesson and how they are going to use their designs to help them make their models. Explain this lesson is about getting the structure for their chair and bed made. Recap how they can roll, fold, bend and join materials. Remind them that the masking tape was the best to join the materials.</p> <p>Teacher to demo how they can use the toy to help in the making stage (measuring the size of the seat by drawing around the toy).</p> <p>Children use the range of card, paper and cardboard boxes to make a chair or bed/ cot for their toy.</p> <p>Adults will model how to use equipment and materials correctly and safely.</p> <p>LA: support with assembling and joining</p> <p>At the end of the lesson, evaluate the children's structures and see if it will hold their toy. Discuss what they could next if it was not strong enough?</p>
<p>Make</p> <p>LO: To make a chair or a bed/ cot for a toy.</p> <p>DT Skills: With help measure, mark out, cut and shape a range of materials</p> <p>Use tools eg scissors</p> <p>Assemble, join and combine materials and components together using a variety of methods.</p>	<p>Explain that this lesson is about refining/ improving and decorating their chairs or bed/ cot. Using the children's structures choose one that has worked well and explain why and then explain what children will need to do if structures are not strong enough. Talk about finish i.e. painting, felt tipping, etc.</p> <p>Children will continue to finish products and include embellishments (decoration).</p> <p>Adults will model how to use equipment and materials correctly and safely.</p>

	LA: support with decoration and skills such as cutting.	
<p>Evaluate</p> <p>LO: To evaluate final chair/ bed/cot products.</p> <p>DT Skills: Evaluate their and others product by asking questions about what they have made and how they have gone about it</p>	<p>Children to evaluate their chair/ bed or cot using criteria</p> <ul style="list-style-type: none"> • Is the right size for the toy? • Is it strong enough to hold the toy? • Is it appealing? <p>Children can compare their design/ product with other children's. If you were a toy designer which would you choose and why?</p>	
Working towards	<p>End of unit assessment</p> <p>Working at Age related expectations</p>	Working at a greater depth