

Y2 – Shelters

Inspiration Creativity	Partnership with parents Community		
Key Questions	Key Concepts	<i>Also covered in:</i>	
Design	<ul style="list-style-type: none"> - Materials - Joining - Structures 	<ul style="list-style-type: none"> - Y5 Bridges 	
<ul style="list-style-type: none"> - What makes a good shelter? - Why do people/animals build shelters? - What shelters can you name? - Which materials have suitable properties when building a shelter? Why are they suitable? - How can we join these materials 	Skills <ul style="list-style-type: none"> - With growing independence, designs that have a clear purpose and intended user are created - Generally, good – quality products are made by a process of refinement during the making process - <i>There is a growing ability to cut materials safely</i> - <i>Maths skills are often used to help measure and mark to the nearest centimetre</i> - <i>There is a growing use of a range of cutting and shaping techniques</i> - <i>There is a growing use of a range of joining materials</i> - <i>With growing independence, materials are combined to make products</i> - With growing independence and a growing understanding of design features, likes and dislikes of the designs of others are identified 	By the end of this unit, the children will be able to: <ul style="list-style-type: none"> - Design a structure fit for a specified purpose - Experiment with joining different materials and choose an appropriate method of joining them - Cut and measure materials with an appropriate degree of accuracy - Make a simple evaluation of their own and other’s products 	
Make			<ul style="list-style-type: none"> - How can we test and refine the shelter?
Evaluate			<ul style="list-style-type: none"> - Is the shelter fit for purpose? - What could we do to improve the shelter?

Knowledge

- A shelter must be strong enough to keep the occupants safe and dry
- shelters have a strong frame with a waterproof covering.
- Shelters include houses, telephone boxes, tents, bus shelters, band stands, barns, treehouses, bird boxes, bug houses and can be different shapes e.g. domes/hemispheres, triangular prisms, cubes/cuboids.
- A design sheet shows the completed product with annotations of materials and techniques needed to produce the shelter.
- Material are Joined in different ways – tying, knotting, twisting, taping, gluing.
- Materials like plastic/wood/foil are suitable materials to construct the frame/covering for a shelter (applying science knowledge). Paper, kitchen roll and
- Models/mock ups are tested and these tests inform improvements/adaptations.
- The design process is challenging, takes time and often requires lots of changes until a suitable end product is made

Topic Specific Vocabulary Materials, strong, durable, sturdy, waterproof, join, attach, glue, tie, knot, curved, sloped, frame, structure, covering, plan, test, suggest, evaluate, improve, develop, suitable, unsuitable,	NC Subject content <ul style="list-style-type: none"> - Design purposeful, functional, appealing products for themselves and other users based on design criteria - Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology - Select from and use a range of tools and equipment to perform practical tasks - Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics - explore and evaluate a range of existing products - evaluate their ideas and products against design criteria - build structures, exploring how they can be made stronger, stiffer and more stable
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Subject Specific/Academic Vocabulary
This vocabulary should be explicitly taught in context. Other tier 2 words should also be explored as they are encountered.

Year 1	Year 2
Partner, individual, task, resource, final, create, available.	Focus, selection, construction, method, evaluation, required, achieve, purchase.

We are Product Designers/Being a Product Designer/I am a Product Designer
Shelter for a stranded pirate/animal

DRAFT