

Design and Technology Medium Term Plan Year 1 Summer Term 2

How can we create a simple structure?

<u>Research</u> What is a structure? Investigate structures and their purpose	<u>Design</u> Design a structure with a strong base	<u>Make it</u> Gather the resources needed to make the structure
	<u>Make it</u> Ensure the structure has a strong base and it can stand unsupported	<u>Evaluate</u> Evaluate the structure against the original design and consider how I might change it

Substantive Knowledge

- Know that structures are a building or other object made from several parts.
- Know that structures can be different shapes and sizes.
- Know that some structures are freestanding. that can stand up without being attached to something else.
- Know that freestanding structures need to support their own weight.
- Know that a stable base is important.

Disciplinary Knowledge

Designing	Making	Evaluating
	<ul style="list-style-type: none"> • Choose tools and materials and explain why they have chosen them. 	<ul style="list-style-type: none"> • Evaluate their work against their design criteria.

<p>Begin to develop their design ideas using research and discussion with peers and adults.</p> <ul style="list-style-type: none"> • Understand the purpose of their product. • Think of an idea and plan what to do next. • Explain why they have chosen specific textiles or materials. • Draw a simple design and label the parts of their product. • Develop their own ideas through drawings, and where appropriate, make templates or mock ups. 	<ul style="list-style-type: none"> • Join materials and components in different ways, including glue, sellotape and masking tape. • Build structures, exploring how they can be made stronger, stiffer, and more stable. • With help, measure, cut and score with some accuracy. • Start to assemble, join and combine materials in order to make a product. 	<ul style="list-style-type: none"> • Start to evaluate their product as it is being developed, identifying strengths and possible changes they might make. • With confidence talk about their ideas, saying what they like and dislike about their product <div data-bbox="1451 491 2145 555"> Technical Knowledge </div> <ul style="list-style-type: none"> • Make a model stronger and more stable
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Resources and websites:	Vocabulary: (including definitions)	
	Structure	a building or 3D shape made from different materials and parts
	Stable	Does not fall down easily.
	Freestanding	A structure that can stand up on its own.

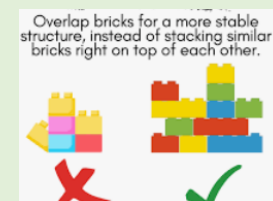
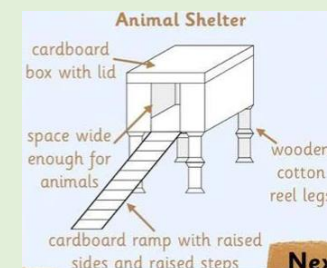
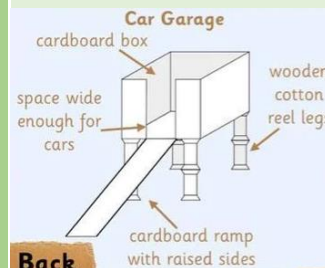
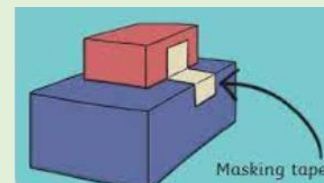
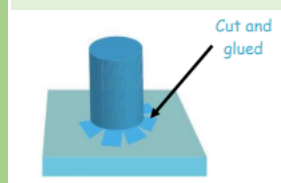
Base

The bottom part of a structure or object.

Structures:

How to make a structure stronger:

<https://www.youtube.com/watch?v=sPhuwXB1ZLM>



Prior Knowledge:

Reception

Expressive Arts and Design

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function

- Share their creations, explaining the process they have used