

National curriculum:

Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand how key events and individuals in design and technology have helped shape the world.

Prior Knowledge:

- Making a structure according to a design criteria.
- Exploring features of structures.
- Comparing stability of different shapes.
- Identifying the weakest part of a structure.
- Testing the strength of own structures.
- Creating joints and structures from paper/card.
- Building a strong and stiff structure by folding paper.

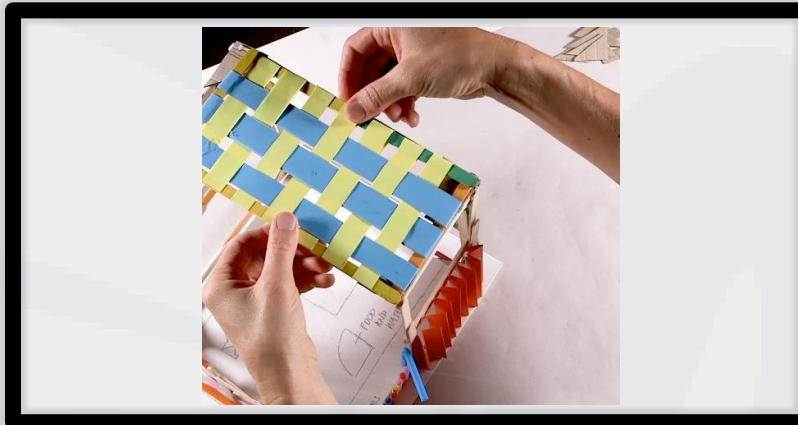
Key Vocabulary:

3D shapes cladding design criteria

natural reinforce structure

DT: Year 3 and 4 – Structures: Pavilions

4 Lessons



Enquiry Questions:

What is a pavilion?

What materials could you use to create your pavilion?

What materials could you use for cladding?

Enrichment

Spend time reading in the pavilion in school.

Designing a pavilion for a character from a book.

Context:

During these sessions, children will explore a range of different shaped frame structures and cladding which is on them. Children will then use this learning to design and create their own structures, reinforcing corners to strengthen their structures and adding cladding.

Sticky Knowledge:

- To know what a frame structure is.
- To know that a free-standing structure is one that can stand on its own.
- To know that a pavilion is a decorative building or structure for leisure activities.
- To know that cladding can be applied to structures for different effects.
- To know that aesthetics are how products look.

Skills:

- Designing a stable pavilion structure that is aesthetically pleasing.
- Selecting materials to create a desired effect.
- Creating a range of different shaped frame structures.
- Making a variety of free-standing frame structures of different shapes and sizes.
- Selecting appropriate materials to build a strong structure and for the cladding.
- Reinforcing corners to strengthen a structure.
- Creating a design in accordance with a plan.
- Learning to create different textural effects with material.