

Year 5 – Structures

What it looks like in year 3:

- To discuss and investigate different examples of different shell structures including packaging.
- To construct nets with flat faces to create 3D shapes. Develop scoring, cutting and assembling techniques.
- Develop a design brief for a specific purpose and intended user.
- To produce annotated sketches to model ideas and plan the main stages of making.
- Produce prototypes of their chosen product.
- Make and assemble a lunch box following previous planning.
- Evaluate the lunch box against the design criteria previously agreed.

Vocabulary (definitions)

- Scoring – scribing or partly cutting through the material along the line to be bent or folded.
- Graphics – the use of diagrams or pictures.
- Capacity – the amount something can produce and/or contain.
- Prototypes – a first version of a product, usually scaled down.
- Assembling – fit together the separate components parts of a product.
- Reinforce – to strengthen or support, especially with additional material.
- Functional – designed to be practical and useful.

Sequence of Learning Design, Make, Evaluate

1. To discuss and investigate a range of portable and permanent frame structures.
2. Demonstrate the accurate use of tools and equipment.
3. Develop a design brief for a specific purpose and intended user.
4. To produce annotated sketches to model ideas and write step-by-step plans and lists of tools and equipment needed.
5. Produce prototypes of their chosen product.
6. Make and assemble a bus stop or shelter following previous planning.
7. Evaluate the bus stop or shelter against the design criteria previously agreed.



Cross-Curricular Links and Cultural Capital:

- Science – compare and group together everyday materials on the basis of their properties.
- Mathematics – identify 3-D shapes, including cubes and other cuboids, from 2-D representations. Apply understanding and skill to carry out accurate measuring using standard units i.e. cm/mm.
- Computing – use technologies for research purposes.
- Art and design – use and develop drawing skills.
- Spoken language – ask relevant questions, formulate and express opinions, give well-structured descriptions and explanations.