

Year: 1 Program of Study: Structures – Freestanding structures

N.C POS:

- *Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.*
- *Generate, develop, model and communicate their ideas through discussion, annotated sketches and prototypes.*
- *Select from tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] accurately.*
- *Investigate and analyse a range of existing products.*
- *Evaluate their ideas and products against their own design criteria.*

Concept: technology, impact, legacy, change, inventions, innovation, application, cause and effect.

Key Vocabulary: cut, fold, join, fix, structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic, circle, triangle, square, rectangle, cuboid, cube, cylinder, design, make, evaluate, user, purpose, ideas, design criteria, product, function.

Prior Learning: Experience of using construction kits to build walls, towers and frameworks. Experience of using basic tools e.g. scissors or hole punches with construction materials e.g. plastic, card. Experience of different methods of joining card and paper.

Core Knowledge- non-negotiable

Designing

- Generate ideas based on simple design criteria and their own experiences, explaining what they could make.
- Develop, model and communicate their ideas through talking, mock-ups and drawings.

Making

- Plan by suggesting what to do next.
- Select and use tools, skills and techniques, explaining their choices.
- Select new and reclaimed materials and construction kits to build their structures.
- Use simple finishing techniques suitable for the structure they are creating.

Evaluating

- Explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings.
- Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria.

Wider Influences

- Traditional tales
- Nursery rhymes
- Buildings
- Farming
- Our school
- Myself
- Parks and playgrounds

Enduring Understanding

- Know how to make freestanding structures stronger, stiffer and more stable.
- Know and use technical vocabulary relevant to the project.