

Year 2 Free Standing Structure (Home for Hedgehog)

What I should know.

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

Knowledge

Design

Understand a product needs to meet criteria (in this case hedgehogs need a warm dry environment.)

Know what materials are water proof and heat insulating.

Making

How to cut with a degree of accuracy

Evaluate

An evaluation describes good and bad features of a project

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

DT Skills

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

- Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing.
- Select from and use a range of materials and components such as paper, card, plastic and wood according to their characteristics.

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.

Technical knowledge and understanding

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



Working Toward Expected	Expected Standard	Exceeding Expected Standard
<p>Processes Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing.</p>	<p>Processes Chooses appropriate tools, equipment, techniques and materials from a wide range.</p>	<p>Processes Use knowledge of existing products to design his/her own functional product</p>
<p>Processes Use a range of simple tools to cut, join and combine materials and components safely.</p>	<p>Processes Safely measure, mark out, cut and shape materials and components using a range of tools.</p>	<p>Processes Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes</p>
<p>Processes Ask simple questions about existing products and those that he/she has made.</p>	<p>Processes Evaluate and assess existing products and those that he/she has made using a design criteria.</p>	<p>Processes Safely measure, mark out, cut, assemble and join with some accuracy</p>
<p>Processes Build structures exploring how they can be made stronger, stiffer and more stable.</p>	<p>Processes Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable.</p>	<p>Processes Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them</p>
<p>Processes Use wheels and axles in a product</p>	<p>Processes Explore and use mechanisms eg levers, sliders, wheels and axles.</p>	<p>Processes Investigate and analyse existing products and those he/she has made, considering a wide range of factors</p>