

DT: Structures: Helmets

Key Vocabulary:

Analyse	Study something closely and carefully to understand it better.
Corrugation	Shaping a material into waves or folds to make it stronger.
Hollow	Something that is empty inside.
Shell structure	A hollow shape with a thin outer layer.
Three dimensional	An object that is not flat; something that can be held and seen from all sides.



Sticky Knowledge Facts:

- Shell structures have a solid, often curved outer surface and empty space inside, which makes it very strong while still being lightweight.
- Fibreglass is a strong, lightweight material made by setting glass fibres in glue-like resin to make a hard shell.
- Layering makes something stronger because it adds thickness and support.
- Strengthening techniques make materials stronger and stiffer; for example, corrugated cardboard is strong because of its wavy middle layer.
- Evaluation is the process of judging the quality, value, or success of a product, by deciding if it met its goal and identifying how to improve it

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Prototypes are important because they allow designers to test an idea's form and function using inexpensive materials. Further prototypes can be developed until the design is successful.

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