

In DT we are learning about... **Shell Structures - Can you make some packaging for a gift for a family member?**

Key vocabulary

Shell Structures - a hollow structure with a thin outer covering.

Packaging - something used to protect or contain a product

Strong/stable - something that stays standing when weight or force is put on it

Durable - something that lasts for long time

Edge - Where two surfaces meet an angle

Face - a surface of a geometric shape

Vertex - used to refer to the corners of shape, where the edges meet

Net - the flat or opened out shape such as a box

Scoring - cutting a line or mark to make it easier to fold

Forces - the push or pull on an object

Appealing - how interesting the product looks and to its user

Font - a printer's term meaning the style of lettering being used

Tabs - additional strips on the net that can be scored and folded to make a surface for sticking vertices together

Characteristics needed for this topic:

- Reasoning and problem solving
- Making links
- Perseverance



Shell Structures - Can you make some packaging for a gift for a family member?



Sticky knowledge

- Shell structures are structures with a solid outer surface (curved or flat) and a hollow inner area and are used to protect, contain or present products
- Some examples of shell structures are food packaging, tunnels, helmets, drinks cans, boats and desk organisers
- A rounded outer surface is strong because it spreads forces throughout the whole structure
- The purpose of packaging is to protect the product inside and appeal to its audience/user through its appearance e.g. colour, wording, patterns etc



Links to previous learning

Year 3

- Structures are more stable when they have a wider base
- Some materials are stronger and more rigid (stiffer) than others, e.g. card is stronger and more rigid than paper
- Joining materials together e.g. with glue or tape can make them stronger

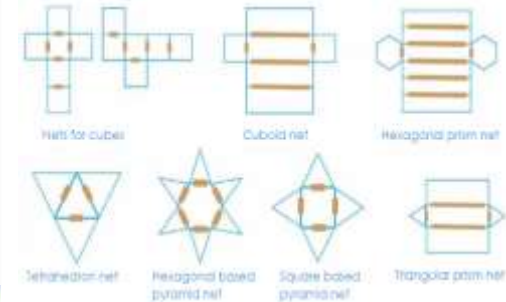
Year 4

- Folding or rolling paper/card into a tube makes it stronger
- Adding an extra layer of materials can make it rigid
- Shell structures are structures with a solid outer surface (curved or flat) and a hollow inner area and are used to protect, contain or present products
- Some examples of shell structures are food packaging, tunnels, helmets, drinks cans, boats and desk organisers
- A rounded outer surface is strong because it spreads forces throughout the whole structure

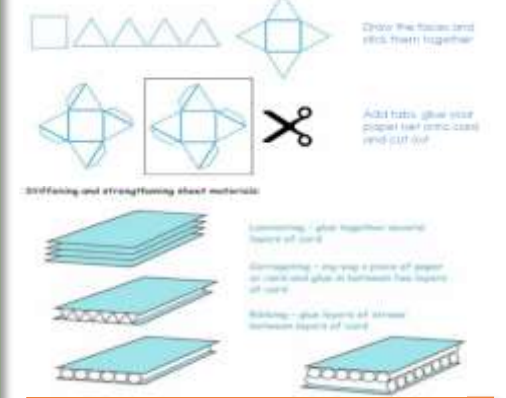


Key Designers

Recognisable food packaging e.g. Toblerone, Maltesers, Terry's Chocolate Orange and Pringles etc



Creating the net for the product you are designing and making without using computer aided design:



Aspirations

- Product developer
- Marketing manager
- Structural engineer
- Computer Aided Design (CAD)
- Advertising

