



Knowledge Organiser for Foundation Subjects in St Margaret Mary's Catholic Junior School

Loving, learning, growing together with Jesus

Topic: Structures – Shell Structures

Subject: DT

Year Group: 3

Term: Spring

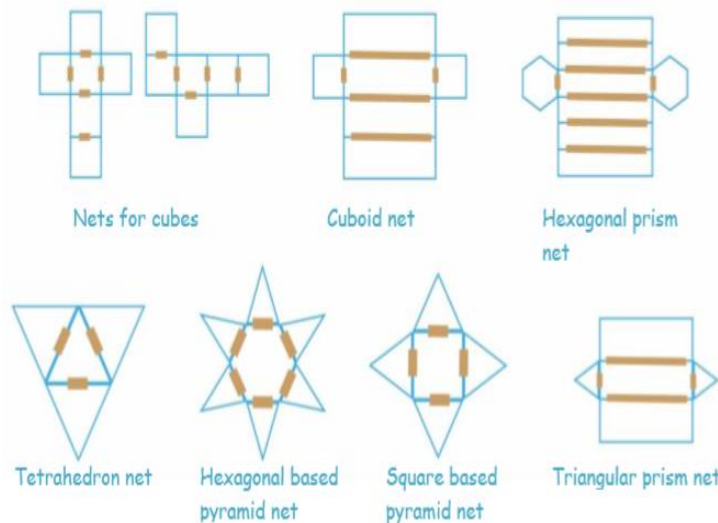
Vocabulary Bank

Vocabulary	Definition
capacity	the maximum amount that something can contain
height	the measurement of someone or something from head to foot or from base to top
join	to connect parts together
length	the measurement of something from end to end
materials	the matter from which a thing is or can be made
net	a 2D shape that can be folded to give a 3D form
recycle	to convert (waste) into reusable material
shell structure	a structure composed of sheet material that encloses a space
structure	a building or other object constructed from several parts
strengthen	to make or become stronger
three dimensional	an object or shape that has three dimensions – length, width and height
vertex	the highest point
width	the measurement of something from side to side
design specification	to create a plan or scheme either from new ideas or by presenting existing materials in a new way
evaluate	the assessment of how an object functions compared with its specification
function	the intended use of any product
labelled drawing	a drawing used to develop a design idea, and to communicate ideas
original	something that has existed from the beginning
research	the investigation into and study of materials and objects
useful	something that is able to be used for a practical purpose or in several ways
user	the person who the product is created for

Key Facts

- Shell Structures are structures with a solid outer surface (which may be curved or flat) and a hollow inner area.
- Shell structures can serve many different purposes. Often, they are used to protecting, containing and/or presenting (e.g. packaging).
- Shell structures may be used to contain things.
- The structures need to be able to take the weight of their contents.
- The materials used are important for protecting interior contents.
- Some shell structures can be shaped to fit their contents, protecting them from movement and damage (e.g. egg cartons).
- Shell structures can be stiffened through folding, layering, corrugating, ribbing or lamination.
- Shell structures are designed to be visually appropriate for their purpose and attractive to their audience.
- Whilst the shape needs to be strong & durable, it also needs to be appealing to the users.

Nets for Shell Structures



Shell Structures in everyday life



End product

Create a 3 dimensional desk tidy.