Preston Primary School Knowledge Organiser

DT – Structures: How can I make a freestanding structure strong and stable?	Term: Summer 1	Unit 2 – Year 1 and 2	Duration: 5 weeks

What are freestanding structures?

Freestanding structures can stand up on their own without being attached to something else. They must be made strong and stable.

Examples of freestanding structures:

What are we making?

Structures

How can I make a freestanding structure strong and stable?

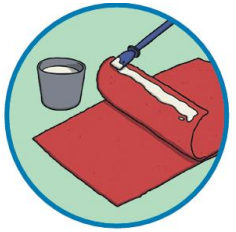
Design brief: Make a freestanding windmill

Client: Make and Grow Club

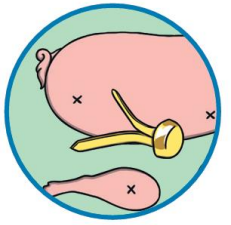
Purpose: Stand and Stay – To place windmills around the garden that can stand up strong and help mark different planting areas.

Joining Techniques

flange

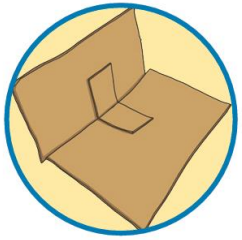


stick



split pin

tape

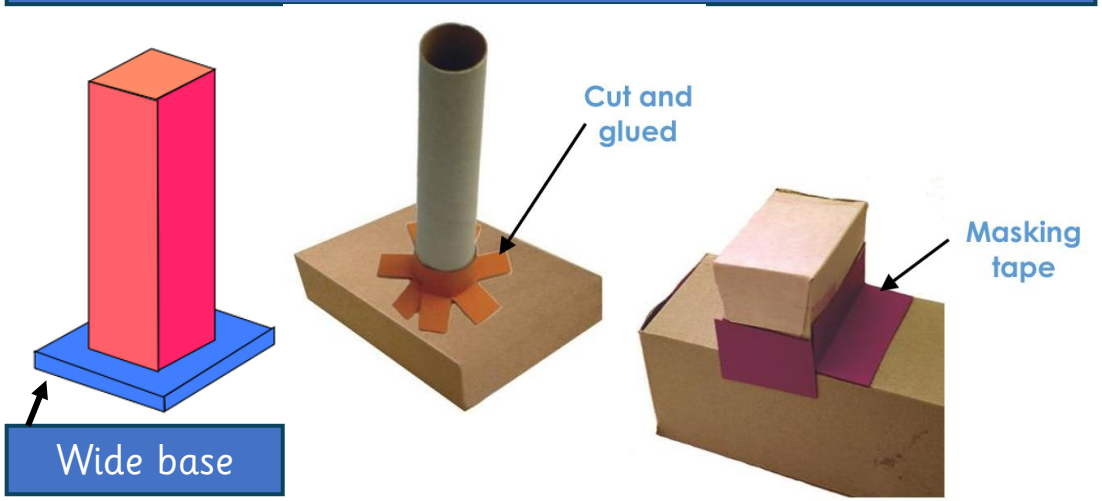


brace

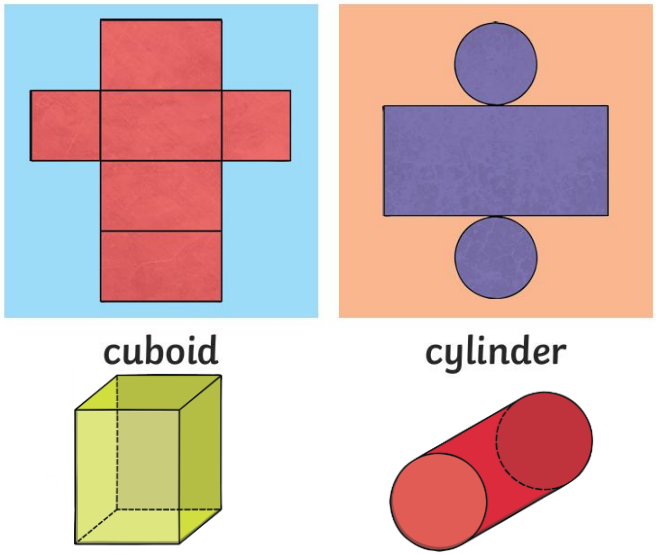
fold

How can we make structures strong, stiff and stable?

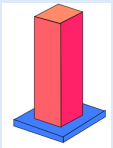
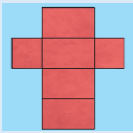
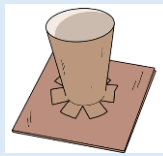
We can join structures to a wide base using joining techniques like glue and masking tape.



We will use nets to build the structure of our windmill. Nets are good for building structures because they help build strong shapes which can stand up and are joined together well.



Key Vocabulary

Structure		A structure is 3D shape made from different materials and shapes.
Freestanding Structure		A type of structure that can stand up on its own without being attached to anything else.
Joining Techniques		Ways of fixing two materials together such as glue, tape or folding.
Base		The bottom part of a structure which it rests on. This helps it be more stable.
Strong		Not easy to break.
Stable		Does not wobble or fall over.
Net		A 2D (flat) pattern which can be folded to make a 3D shape.
Flange		A joining techniques by joining tubes or pipes to a base or flat surface to make it stronger.