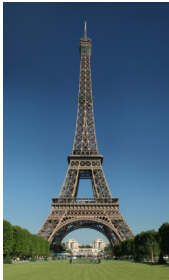


Freestanding Structures

Year One

Real life examples

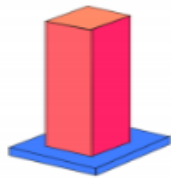
- Structures are things that are built for a purpose. They can be large like building and bridges, or small like chairs and tables.



- Free-standing structures are structures that can stand up without being attached to something else. They need to support their own weight and also the weight of the things/people using them.

- Structures need to be well designed and strong and stable. This will make it less likely to fall over. They can be made more stable by adding:

**A wider base**



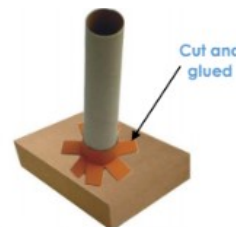
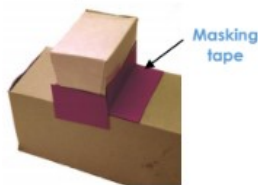
**Buttresses**



Steps to Success




- Designing : Think about who you are making your chair for. How strong does it need to be? What materials would be the strongest?

- Making: What tools will you need to use? How are you going to stick your parts together? Are you going to add buttresses or add extra layers to make your chair strong?



- Evaluating: How well does your structure work? Is it suitable for Barnaby bear?

Vocabulary:

base	the bottom part of a structure
corner	the place where two sides meet 
design	to make or draw plans for the structure
rigid	hard, not able to bend or shape it
stability	how likely something will fall over
strong	not easily broken
structure	something that has been built for a purpose 
top	the highest point of a structure
tower	a tall structure 
weak	something that breaks easily or cannot hold weight

Golden Threads

User	who the product is for
Purpose	the job your product is supposed to do
Functionality	the reason that something is made or what something is meant to do