Knowledge Organiser - Frame Structures (Design & Technology Year 5)

Key Vocabulary	Definition
Modelling	The process of making a 3-D representation of a structure or product.
Compression	When pressure squeezes an object.
Strut	A part of a structure that is being compressed.
Tension	A force pulling on a material or structure.
Tie	A part of a structure that is under tension.
Diagonal	A straight line that goes from one corner to another inside a shape.
Horizontal	A line that is parallel to the ground.
Vertical	A line that is at right angles to the ground.
Triangulation	The use of triangular shapes to strengthen a structure.
Frame Structure	A structure made from thin components (such as a tent frame).

**Understanding triangulation** 

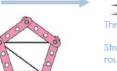
000

000000

000000)

Creating triangles for rigidity

More rigid



Threaded and tied Straws split to fit round then glued

Joining straws

Drinking

straw

Glued to card

Straw flattened, wrapped around and glued

> Ends of straws flattened and glued

Plastic tubina One straw creased and inserted Flattened and glued Pipe cleaner Sleeve glued around joint Sticky tape

Roll paper to make tubes for construction



Making small-scale

frame structures

Using square section wood

