



Year 6 DT - Frame Structures

EXAMPLE: The designing, making and evaluating process to make a bird hide

Key vocabulary	
Frame structure	a structure made from thin components e.g. tent frame
Modelling	Making a 3D representation of a structure
Compression	The application of pressure to squeeze an object
Strut	a part of a structure under compression
Tension	A force pulling on a material or structure
Tie	A part of a structure under tension
Triangulation	The use of triangular shapes to strengthen a structure
User	Who the product is being made for
Purpose	What will be product be used for

THOUGHT	ACTION
What type of structure shall I make? What will be its purpose? Who will use it?	Discussing ideas, drawing annotated sketches Generating a simple design specification
Which will be the best shape for my bird hide? What features will it have?	Discussing, modelling and evaluating different options
Which materials will I use to make it? How will I make it strong and waterproof?	Investigating and testing possible materials Discussing, exploring and evaluating prototypes
What will I use to cover the structure of my shelter?	Discussing, exploring and evaluating different fabric and rigid covering options
What tools and materials will I need? What order will I work in? Will I work with someone? What constraints I am working to?	Negotiating, developing and agreeing a step-by-step-plan
Do I need to change anything?	Discussing, testing and modifying the design
Will my product meet the needs of the user?	Evaluating the product with the intended user and against the original design specification

Techniques for building frame structures

Roll paper to make tubes for construction

Joining straws

- Drinking straw
- Plastic tubing
- Glued to card
- Ends of straws flattened and glued
- Threaded and tied
- Straws split to fit round then glued
- Pipe cleaner
- Straw flattened, wrapped around and glued
- One straw creased and inserted
- Flattened and glued
- Pipe cleaner
- Sleeve glued around joint
- Sticky tape

Joining thin sectioned pieces of wood

- Card strips can be used to make joints (Use PVA glue)
- Elastic bands or string can be used to make joints
- Card triangles can be used to make joints