



Year 6 - Designing for everyone- Shelters - Structures

Key Vocabulary

Scale Model	A small but exact copy a scale model of a the product.
Modelling	Representing something.
Strengthening	To make something stronger and withstand more force.
Framework	An essential supporting structure of a building, vehicle, or object.
Rigid	Unable to bend.
Reinforcing	To withstand more force.
Strut	A rod or bar forming part of a framework and designed to resist compression.
Beam	a long, sturdy piece of squared timber or metal used to support the roof or floor of a building.
Bracket	A right-angled support attached to a wall for holding a shelf, lamp, or other object.
Gusset	A bracket strengthening an angle of a structure.



Lesson sequence

Evaluation of existing products	understand that there are many different types of shelters built for a variety of purposes; can identify which parts support and strengthen simple structures.
Focussed tasks	recognise that under certain circumstances structures can fail when loaded (they will be familiar with common techniques for reinforcing and strengthening structures and will incorporate some of these in their shelter models); use appropriately a variety of temporary and permanent joining techniques using framework materials and textiles.
Design	What things might be difficult for Sharon (for example, entrance to station)? What things assist her in her life because of good design?
Make	produce several clear design ideas, including step-by-step lists of what needs to be done and lists of resources to be used; make suggestions for alternative methods of construction if necessary;
Evaluate	evaluate their own and other children's shelters identifying what is and what is not working, including appearance.
Health and Safety	when using loads for testing strength ensure that the loads cannot cause injury or damage when the structures fail; fire safety should be ensured for any large structures that young children may use