



Area: Construction

Year: 2

Subject: Design and Technology

What should I already know?

- how to join materials (e.g. glue, tape, staples)
- how to make a structure stronger and more stable
- basic characteristics of some materials
- some simple mechanisms (levers and pulleys)

How will I use this learning in the future?

In Year 3, I will use levers and linkages to create movement and understand how they are used in everyday life. I will also begin to understand the input and output processes of these systems.

What vocabulary should I learn?

absorbent	able to soak up liquid easily
axle	a rod or spindle (either fixed or rotating) passing through the centre of a wheel
base	the lowest part or edge of something
bendy	able to change shape easily (flexible)
hard	solid, firm, and rigid; not easily broken or bent
join	link or connect
rough	having an uneven or irregular surface; not smooth or level
smooth	having an even and regular surface; without lumps or dents
soft	easy to mould, cut, compress or fold
stable	not likely to give way, overturn or collapse
stiff	not easily bent or changed in shape; rigid
strong	able to withstand force, pressure, or wear
structure	an object constructed from several parts
waterproof	does not absorb/take on water

What should I be able to do by the end?

Designing

Come up with more than 1 design and then decide which is best to make.

Use drawings and words to record and build on your ideas.

Evaluating

Suggest how your product can be improved.

Say if your final product meets design criteria.

Build simple structures and explain how they can be made stronger, stiffer and more stable.



- Use a strong and stiff **base**, which is a rectangular shape.
- **Measure** length of axels needed.
- Ensure wheels turn freely.
- Ensure axels are straight and are positioned at an appropriate height.

Talk about and choose materials based on their characteristics.

hard **stretchy** **bendy**
soft **stiff** **waterproof**
rough **smooth** **absorbent**

Join materials and explain choices.

glue stick/PVA glue tape staples use tabs to secure

Finish and decorate products.



add colour and draw details



add other features (e.g. ladder, headlights, hosepipe)

What should I know by the end?

A simple machine changes the direction or size of a force. It makes it much easier to pull or push something over a longer distance.

Wheel & Axle **Screw** **Wedge**