



Area: Construction

Year: 1

Subject: Design and Technology

What should I already know?

- That different media and materials can be put together to make new effects.
- Construct a product with an idea in mind.

How will I use this learning in the future?

In Year 2, I will choose materials more carefully and explain my choices when designing, making and evaluating. I will also use other mechanisms such as wheels and axels.

What vocabulary should I learn?

absorbent	able to soak up liquid easily
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

Draw a picture and label it to show what you are going to make. Try out some ideas before making.

Evaluating

Look at products (e.g. real lighthouses) and say what you like and dislike about them. Say if your product meets design criteria.

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



- Make the base **wider** than the top.
- Use thicker and stronger materials or use **layers** of thinner materials, e.g. is cardboard better than 3 pieces of paper?
- Use **3D** structures (e.g. cylinders).
- Do not add too many heavy materials to the top.

Talk about and choose materials based on their characteristics.

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

Join materials.



glue stick/PVA glue

tape

staples

use tabs to secure

Finish and decorate products.



add colour and draw details (e.g. windows, stripes)

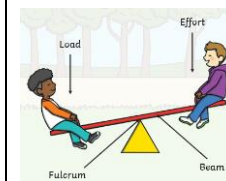


add other features (e.g., rocks, light, roof)

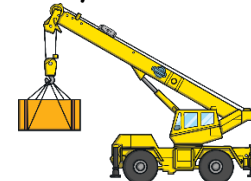
What should I know by the end?

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.

Lever



Pulleys



Inclined Plane

