

Subject Specific Vocabulary

strengthen	to make materials stronger
stiffen	to make firmer and difficult to bend
materials	any substance that an object is made from
reinforce	to strengthen by additional assistance, material, or support.
corrugated	to shape or bend into parallel, wavelike ridges and grooves.
finishing	techniques used on a product to help them achieve a high quality finish.
functional	the way something works or how useful it is
aesthetic	how the product looks, its pleasing qualities

Construction: Roman Shields!



What do I already know?

In KS1 I learned about: (see planning)

- Sliders, levers and wheel mechanisms to create a moving picture.
- use safe ways of cutting materials
- select from, use and talk about a wide range of materials and components, according to their characteristics.

Links to the NC:

NC - DT - KS2

Design:

use research and develop design criteria to inform the design of innovative, functional, appealing products...

generate, develop, model and communicate their ideas ...

Make:

select from and use a wider range of tools and equipment to perform practical tasks...

select from and use a wider range of materials and components...

Evaluate:

investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria...

understand how key events and individuals in design and technology have helped shape the world.

Technical knowledge:

apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]

By the end of this unit I will know how to...

- measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques to make a Roman shield
- independently use safe ways of cutting materials including a junior hacksaw
- apply my understanding of how to strengthen, stiffen and reinforce more complex structures (joining, folding, layering/corrugated, shape and own ideas)
- start to consider how materials have both functional properties and aesthetic qualities, and choose the most appropriate material for the project