

In this unit: Pupils will investigate the properties of different materials and then use what they have learned to design and build a castle, which would be fit for looking after and defending a king and queen.

Children should already know:

- that objects are things that you can touch or see.
- that objects are made from materials and can name many of these materials.
- that some materials are natural and some are man-made.
- the properties of everyday materials.

At the end of this unit, children will know:

- that materials such as brick, glass, metal and slate are fireproof.
- that materials such as wood, paper and cardboard are not fireproof.
- that some materials are better suited to a job, than others.
- that some materials can be changed, by manipulating them with tools.
- that castles were originally built out of wood before being rebuilt in stone and the reasons for this.

Pupils could investigate:

- which material would be best suited to...? Why?
- which materials are more durable and resistant?
- which material would you use for the roof? Why?



Key Vocabulary

bending	change a straight object so that it is curved.
brick	a small, man-made rectangular block made from clay used in building
cardboard	a thick, stiff form of paper
fireproof	does not easily set fire or burn
manufactured	when a natural material is made into a new one
paper	a material manufactured into thin sheets from wood – used for writing, drawing or printing on
squashing	crush something so that it becomes flat, soft or out of shape.
stretching	made longer or wider without tearing or breaking.
suitable	right or appropriate for a particular purpose, person or job
surface area	the amount of space the flat side of a shape takes up.
texture	how something feels when it is touched
twisting	change the shape of an object by turning it.
unsuitable	not right or appropriate for a particular purpose, person or job

Key Questions:

- why is building a castle out of wood not a good idea?
- what materials would be best to make a castle easy to defend?
- why do we use bricks to build houses?
- why do we use glass for windows?
- why is ... not a good material for...?

