

Subject:	Design & Technology	Title of unit:	Construction and use of materials – Viking Longboats	Year group/term:	Y4 - Aut1
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Unit 'intent' statement:

By the end of this unit, pupils will have developed an understanding of how to select materials appropriately to construct a Viking longboat that fits the given brief.

Links to previous learning

The materials aspect of this unit links to the construction and materials unit in Year 3 where children will have designed made and evaluated a moving vehicle. They will be able to draw on their knowledge of how to select appropriate materials to meet a design brief.

Knowledge pupils will acquire (NC statements in bold):

Design

- *use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups*
- *generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design*

Make

- *select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately*
- *select from and use a wider range of materials and components, including construction materials according to their functional properties and aesthetic qualities*

Evaluate

- *evaluate their ideas and products against their own design criteria and consider the views of others to improve their work*
- *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*

Context: Children should know that the Vikings used longboats to travel to Britain to invade. They should know that the ships were made up of **the Prow** (the front of the ship carved with a dragon like figure to scare enemies away), **the Stern** (back of the ship with a carving similar to the one on the front), **shields** (decorated and put on the outside of the ship) and the **sail** (often made from sheep wool with animal fat and tar to strengthen it).

Design brief

It needs to be watertight, able to float, balance, hold ten playmobil men (or similar) and attractive to look at with a sail, oars and shields.)

- know how to design a Viking longship which is historically accurate.
- Know how to select materials to fit a design brief.
- Know how to select tools to cut materials effectively.
- Know how to select materials and components to ensure the outcome is aesthetically pleasing.
- Know how to test the finished outcome against the design brief and evaluate its success.
- Know how to adapt their designs to make improvements to fit the brief.

Example outcomes:

