

How do we design a product fit for purpose?

Vocabulary

Innovative	A design or idea that features new
Functional	designed to be practical and useful,
Appealing	attractive or interesting.
Purposeful	having a useful purpose.
Aesthetic qualities	the overall visual effect of the design
Design specification	a detailed document providing a list
Evaluate	to judge or calculate the quality.
Construct	To build or make something.
Accurately	To do something with precision or
Improve	To make something better
Practical	To actually do/complete something

Evaluating a product

We will be looking at a coal cart and identifying its purpose. What is it used for? How often? What does it need to be able to do?

After this, we will identify whether a coal cart meets the criteria needed for it and whether there is anything we would improve.

Joining methods

When creating a product, we often need to join two pieces of material together. This can be done in a number of different ways and different materials will need different joining materials. Here we will explore how and which methods are most effective.

Designing a product

We will use geometric paper to design our 3D coal cart. We will think about the dimensions of our product, the types of joins it will need and its aesthetic qualities.

Working accurately

As we build our coal carts, we will work on measuring our materials accurately using the tools provided and we will ensure that are marks are clear and precise.

We will also be choosing the correct joining product for the material we are working with and apply it accurately.

Evaluating a product

Reviewing the design criteria set in Lesson1, we will evaluate our coal carts to decide what went well and what we would improve upon.

HOUSE ENERGY

National Curriculum Objectives

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, textiles and ingredients, according to their functional properties and aesthetic qualities

<u>Evaluate</u>

investigate and analyse a range of existing products

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