

Design Technology: Prototyping Masterclass with Kit the Fox

Learning objective: To understand the purpose of prototyping in the design process and how to use iterative testing to improve a product.

Use these flashcards to test your knowledge of prototyping. Read the term or question on the front, think of your answer, then check the back to see if you are correct!

What is a prototype?

A prototype is an early, experimental model of a product built to test a concept or process before making the final version.

Why does Kit the Fox create a prototype before the final build?

To identify potential design flaws, test if the idea works, and see if it meets the needs of the user.

What does the word 'iterative' mean in design?

Iterative means repeating a process to create a series of improvements, learning from each step to make the product better.

What is user testing?

User testing is the process of letting someone else try out your prototype to see if it is easy and effective to use.

True or False: A prototype must always be made from expensive, high-quality materials.

False. Prototypes can be made from simple, low-cost materials like cardboard, tape, or clay to save time and money.

What is a 'modification'?

A modification is a change made to a design based on feedback or results from testing the prototype.

Why is it important to evaluate a prototype?

Evaluating helps you reflect on what worked well and what needs to be changed to meet the design brief.

What is a 'design brief'?

A design brief is a clear set of instructions or a goal that explains what you are trying to create and who it is for.

If a prototype fails during testing, is the project ruined?

No! Failure is a helpful part of the process because it shows you exactly what needs to be improved.

What is the main goal of functionality testing?

To ensure that the product actually performs the task it was designed to do reliably.

Give an example of a low-cost material used for prototyping.

Cardboard, old plastic bottles, masking tape, or recycled paper.

How can you use feedback from a friend to improve your design?

By listening to their suggestions and making specific modifications to your prototype to solve the problems they identified.