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# Why Designers Research Before Making Anything

KS2

DESIGN & TECHNOLOGY

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## What Is Design Research?

**Design research** means learning about a problem before you try to fix it. Designers ask questions, look at what already exists, and understand who will use their creation. This happens **before** they start sketching or building anything.

Think of it like a detective investigating a case. You wouldn't solve a mystery without gathering clues first, right? Designers do the same thing with problems.

Think of it like... a doctor examining a patient before writing a prescription. They need to know what's actually wrong before they can help.

## Understanding the Problem

Every design starts with a **problem to solve**. Maybe a backpack is uncomfortable, or a water bottle leaks, or a playground isn't fun for children with different abilities. Designers research to really understand these problems.

They might watch people using products, ask them questions, or read what others have written about the issue. This **research** stops designers from guessing wrong. If they don't research, they might spend weeks making something that nobody actually needs.

## Learning About Users

Different people need different things. A **user** is anyone who will use what you're designing. A phone designed for a **5-year-old** looks very different from one for a **75-year-old**.

Designers research their users by finding out:

- How old they are
- What problems they have

- What they like and dislike
- How they live their lives

This information helps designers make something that actually works for real people.

Think of it like... baking a cake for a friend's birthday. You'd want to know if they like chocolate or vanilla, or if they're allergic to nuts, before you start baking!

## Checking What Already Exists

Designers also research what's already been made. They look at similar products and learn from them. What works well? What could be better? This saves time and prevents making the same mistakes others already made.

They also research **materials** — what things are made of — to find the best options. Plastic, wood, metal, and fabric all have different strengths and weaknesses.

## Why This Matters

Good research makes better designs. It saves money, because you're not building something wrong. It saves time, because you know exactly what to make. And most importantly, it creates things that actually help people.

**Every great invention started with research** — from light bulbs to smartphones to wheelchairs. Designers who skip research often fail, waste money, or create things nobody wants. That's why the very best designers are also really good researchers!