



WORKSHEET · THE BIG PICTURE

The design process

LEARNING INTENTION

Understand each stage of the design process and how designers use it.

SUCCESS CRITERIA · I can...

- ☐ name the stages of the design process in order
- ☐ describe what happens at each stage
- ☐ explain why designers go back to earlier stages

KNOWLEDGE

Stage	What happens?	EarBuddy example
1 • Design brief	The problem is described: who it is for and what the product must do.	"Design a product that stores and protects earbuds..."
2 • Research	The designer finds facts, sizes and opinions about the problem and the users.	Measure an earbud case; ask pupils what annoys them.
3 • Specification	A list of measurable rules, written from the research.	"It must fit a case 61 × 46 × 22 mm."
4 • Concepts	Many different ideas are sketched and annotated. The best is chosen and developed.	Sketch 4+ EarBuddy ideas, score them against the spec.
5 • Prototype	A quick, cheap model is made to test the idea and improve it.	Make a card model and test it with real earbuds.
6 • Manufacture	The product is planned and made from real materials.	Make it in aluminium, plywood or acrylic.
7 • Evaluate	The finished product is tested against the specification.	Does it meet every specification point?

TASK 1 · MATCH UP

1 Write the letter of the correct stage beside each description.

- A** Design brief
- B** Research
- C** Specification
- D** Concepts
- E** Prototype
- F** Manufacture
- G** Evaluate

Sketching lots of different ideas with annotations

Checking the finished product against the rules

A short statement describing the problem

Cutting, shaping and finishing the real material

A measurable list of what the design must do

Doing a questionnaire and measuring products

Making a quick card model to test

TASK 2 · REAL-WORLD DESIGNER

2 Ava is designing a reusable water bottle for primary school pupils. Her steps are mixed up. Number them 1–7.

Ava makes a foam model of the bottle and asks pupils to hold it.

Ava writes: "It must hold 500 ml and fit a lunchbox 70 mm deep."

A school asks for a bottle that small children can open by themselves.

Ava tests the finished bottles with a class and compares them with her rules.

Ava sketches eight different bottle and lid ideas.

Ava measures lunchboxes and watches pupils try to open bottles.

The bottles are made in a factory.

TASK 3 · PLAN YOUR PROJECT

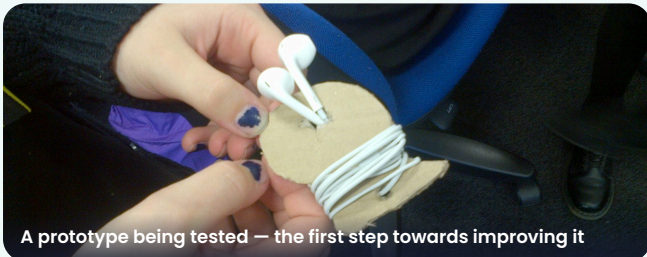
3 For each stage, write what **you** will do in the EarBuddy project.

Stage	What I will do
1 • Design brief	
2 • Research	
3 • Specification	
4 • Concepts	
5 • Prototype	
6 • Manufacture	
7 • Evaluate	

KNOWLEDGE

Iteration

Designers rarely get it right first time. When a test shows a problem, they go **back** to an earlier stage, improve the idea and test again. Each loop makes the design better.



A prototype being tested — the first step towards improving it

TASK 4 · GO BACK!

4 Kai's card prototype is tested. The earbud slots are too narrow and the earbuds fall out.

a) Which stage should Kai go back to?

b) What should Kai do next?

c) Why is it better to find this problem with card than with acrylic?

EXAM-STYLE QUESTIONS

a) State the first stage of the design process.

1 mark

b) Describe what a designer does at the research stage.

2 marks

c) Explain why designers go back to earlier stages of the design process.

2 marks