

Max's Textile Design Challenge: Creating a Prototype

Learning objective: To understand the properties of fabrics and design a functional textile product suitable for a specific purpose.

Max the monkey is helping us solve a design puzzle! Use this planning sheet to design a new textile product. Think about who your product is for, what materials you will choose, and how you will join them together. Be sure to explain why your chosen fabrics are the best fit for your design.

Word bank: durable · absorbent · synthetic · natural · seam · template · fastening · properties · texture · function

1. Product Goal: What are you making and who is it designed for? Explain the main function of your item. (2 marks)

2. Material Selection: Which two fabrics will you use? Explain why these materials are suitable based on their properties (e.g., strength, texture, or water resistance). (3 marks)

3. Design Components: List the specific parts of your product. How will you join the pieces together safely and neatly? (2 marks)

4. Fastening Method: What will you use to secure your product (e.g., buttons, zips, or velcro)? Why is this the best choice for your user? (2 marks)

5. Refining the Plan: If your first prototype does not work as expected, what steps would you take to improve your design? (3 marks)

Extension challenge: Max challenges you to estimate the cost of your materials. If a metre of cotton fabric costs £4.50 and you need half a metre, plus two buttons at £0.25 each, what is the total cost of these materials?