

Design Technology Assessment: Textiles and Fabric Construction

Learning objective: To demonstrate knowledge of textile properties, sewing techniques, and the design process for functional products.

Read each question carefully. Use your knowledge of fabrics and construction to provide detailed answers. Remember to use technical vocabulary where appropriate.

Max the monkey is designing a new pencil case for his school supplies. He wants to ensure the fabric is strong enough to hold his heavy math equipment, but also colorful and unique. He is considering using felt for the main body and a zip for the opening. Zara the zebra is helping him look at different patterns and textures to make sure the design is aesthetically pleasing and functional.

Word bank: template · seam allowance · stitching · properties · durability · fastening · synthetic · natural

1. Identify one natural fiber and one synthetic fiber. Explain one advantage of each. (2 marks)

2. Why is it important to include a 'seam allowance' when cutting out fabric pieces for a project? (2 marks)

3. Max decides to use felt for his pencil case. Name two properties of felt that make it suitable for this product. (2 marks)

4. If Max wants to join two pieces of fabric together permanently, which stitch would be most effective and why? (3 marks)

5. List three different types of fastenings that could be used on a textile product, other than a zip. (3 marks)

6. Explain the process of creating a textile product from the initial design idea to the finished item. Include how you would test your product for fitness for purpose. (5 marks)

7. Look at the design needs: The pencil case must be waterproof and hard-wearing. Suggest one suitable fabric choice and explain why it fits these criteria. (4 marks)

8. Why might a designer choose to add decorative features like embroidery or appliqué to a textile product? (4 marks)

Draw: In the box below, sketch a design for a small fabric pouch. Label your diagram to show where the stitching goes, where the seam allowance is, and identify the type of fastening you would use.



Extension challenge: Total: /25