

Design Technology: Prototyping Assessment

Learning objective: To understand why we make prototypes and how to improve designs.

Read each question carefully. Use the word bank if you need help. Write your answers clearly on the lines provided.

Max the monkey wants to build a new treehouse. Before he builds the real thing, he makes a small version using card and glue. This is called a prototype. It helps Max see if his plan will work.

Word bank: Prototype · Model · Design · Improve · Test · Idea · Materials

1. 1. What is a prototype? Use the word bank to help you. (2 marks)

2. 2. Why does Max make a small model before building the real treehouse? (3 marks)

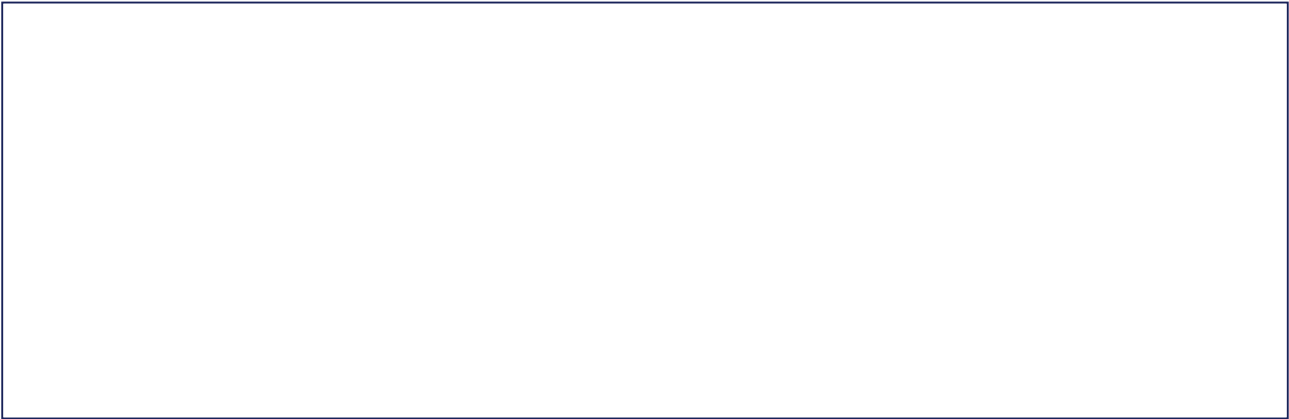
3. 3. Name two materials you could use to make a prototype. (2 marks)

4. 4. If Max finds a mistake in his prototype, what should he do next? (3 marks)

5. 5. Max wants to sell his treehouse plans for £5.00. He spends £2.00 on card and £1.00 on glue. How much money does he have left if he sells one plan? (3 marks)

6. 6. Imagine you are designing a new toy. Write a short plan (3-4 sentences) about how you will build your prototype. Use these sentence starters: First, I will... Next, I will... Finally, I will... (5 marks)

Draw: In the space below, draw a simple prototype of a toy you would like to make. Label the materials you would use.



Extension challenge: Total: /25. Extension: Why is it better to find a mistake in a prototype than in the final product?