

Max's Design Workshop: The Prototyping Challenge

Learning objective: Understand the purpose of prototyping in the design process and identify why designers use models to test their ideas.

Max the monkey is designing a new playground toy, but he needs to test his ideas first! Look at the list of reasons why we create prototypes. For each statement, decide if it is 'True' or 'False'. If you choose 'False', write one sentence explaining why a designer would actually create a prototype instead.

Word bank: Prototype · Refine · Test · Model · Design · Feedback · Improvement

1. 1. A prototype is a final, finished product that is ready to be sold in a shop. True or False? (2 marks)

2. 2. Creating a prototype helps a designer see if their idea actually works in real life. True or False? (2 marks)

3. 3. If a prototype breaks during testing, it means the designer has failed and should give up. True or False? (2 marks)

4. 4. Prototypes allow designers to make changes and improvements before spending money on expensive materials. True or False? (2 marks)

5. 5. You can use cheap materials like cardboard, tape, and string to build a prototype. True or False? (2 marks)

Draw: Max wants to build a 'Super-Slide' that can be folded away when not in use. Draw a rough sketch of a prototype for this slide, using labels to show which parts you would test first.



Extension challenge: If you were going to build your 'Super-Slide' prototype, list three materials you would use that you might find in a recycling bin at home. Why are these good choices for a first test model?