Materials Scientist Report: The Mystery Object Hunt

Learning objective: To identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper, and cardboard, based on their properties.

Help Max the monkey investigate objects around your classroom or home. Choose an object, identify what it is made of, and describe its physical properties to explain why it is the perfect material for that job.

Max the monkey has found a mysterious object and needs your help to explain why it is made from its specific material.

Word bank: transparent · opaque · flexible · rigid · waterproof · absorbent · durable · smooth · rough · because · however · therefore · specifically

1. Introduction: Describe the object you have chosen and identify the material it is made from. Start by saying: 'I have chosen to investigate a [object name], which is made from [material] because...' (2 marks)

2. Physical Properties: Describe what the material feels and looks like. Use adjectives to help: 'The material is [adjective 1] and [adjective 2]. I can tell this because...' (3 marks)

3. Testing Suitability: Explain why this material is the best choice for this object. Ask yourself: 'If it were made of a different material, what would happen? For example, a [object] made of [different material] would be unsuitable because...' (3 marks)

4. Conclusion: Summarise your findings. End your report by stating: 'In conclusion, [material] is the most suitable material for this object because...' (2 marks)

5. Extra Challenge: If you could invent a brand new material to make this object even better, what would it be called and what special property would it have? (2 marks)

Extension challenge: Find an object in your house that is made of more than one material (like a pencil or a pair of scissors). Write a sentence explaining why the designer chose to use two different materials instead of just one.