

Nova's Material Investigation Log

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

Nova the Owl is helping to design a new reading nook for the BookFlik forest. Use this experiment record to test different materials. Choose an object, identify the material it is made from, and describe how its properties make it useful for specific jobs.

Word bank: transparent · opaque · flexible · rigid · waterproof · absorbent · durable · magnetic · thermal conductor · insulator

1. Material Selection: Name the object you are testing and the material it is made from. Why did you choose this specific object to investigate? (2 marks)

2. Property Observation: Describe the physical properties of your material. Is it hard, soft, shiny, or dull? Does it bend or snap? (3 marks)

3. Testing for Suitability: If we used this material to build a roof for the reading nook, would it keep the rain out? Explain your reasoning using the word 'waterproof'. (3 marks)

4. Comparison: Compare this material to another material (e.g., wood vs. metal). Which one is more suitable for a chair, and why? (3 marks)

5. Conclusion: Based on your test, would you recommend this material for Nova's project? Give one reason for your answer. (2 marks)

Extension challenge: Find three objects at home that are made of two different materials (e.g., a metal pan with a plastic handle). Explain why the designer chose to use two different materials instead of just one.