Nova’s Material Matters Quiz

Learning objective: To identify, describe, and compare the properties of everyday materials and understand how materials are chosen for specific purposes.

Join Nova the barn owl in the starlit forest! Read each question carefully and select the best answer based on what you know about the properties of materials.

Answer Key: 1. A (Thermal insulator), 2. True, 3. False (it is a thermal conductor), 4. C (Transparent), 5. True, 6. Hardness, 7. C (Soluble), 8. False (it is a physical change), 9. B (Flexible), 10. True.

Word bank: Thermal insulator · Transparent · Hardness · Soluble · Conductivity · Opaque · Flexible · Reversible

1. 1. Nova is building a nest. Which material property helps keep her eggs warm by trapping heat? A) Thermal insulator* B) Transparent C) Magnetic D) Hardness (1 mark)

2. 2. True or False: A material that allows light to pass through it is called transparent. (1 mark)

3. 3. True or False: Metal is a good thermal insulator. (1 mark)

4. 4. Which property describes a material that you cannot see through at all? A) Translucent B) Shiny C) Opaque* D) Flexible (1 mark)

5. 5. True or False: Solubility is a property that describes whether a substance can dissolve in water. (1 mark)

6. 6. What property measures a material's ability to resist scratching or denting? (1-word answer) (1 mark)

7. 7. If you stir sugar into a cup of tea, the sugar is: A) Magnetic B) Opaque C) Soluble* D) Hard (1 mark)

8. 8. True or False: Burning a piece of wood is a reversible change. (1 mark)

9. 9. Which material would be best for making a rubber band? A) Rigid B) Flexible* C) Brittle D) Transparent (1 mark)

10. 10. True or False: Some materials are magnetic, meaning they are attracted to magnets. (1 mark)

Draw: Draw Nova the barn owl wearing a set of safety goggles in her laboratory. Label three items in the drawing with their material properties, such as 'Hard' for a stone or 'Flexible' for a vine.

Extension challenge: Imagine you are designing a new school lunchbox. Write a short paragraph explaining which materials you would choose for the inside and outside, and explain your choices using the scientific properties you have learned.