Nova’s Magnetic Discovery: Experiment Record

Learning objective: To identify magnetic materials, understand the properties of magnetic poles, and observe the forces of attraction and repulsion.

Follow Nova the owl’s scientific method to investigate your magnets. Use a bar magnet to test different objects around your classroom or home. Fill in the sections below to document your findings.

Word bank: attract · repel · magnetic · non-magnetic · pole · force · iron · steel · temporary

1. Hypothesis: Predict which three items you think will be attracted to the magnet and explain why you think so. (2 marks)

2. Method: List the steps you took to ensure your test was fair and safe while using the magnet. (3 marks)

3. Results: Describe what happened when you placed the North Pole of your magnet near the South Pole of another magnet. (2 marks)

4. Analysis: Which materials were attracted to the magnet? Were there any surprises? Explain your findings. (4 marks)

5. Conclusion: Based on your experiment, how would you define a 'magnetic' material in your own words? (3 marks)

Extension challenge: Nova asks: If you were to cut a bar magnet in half, what do you think would happen to the poles? Research or sketch your theory.