

Nova's Forces Experiment Record

Learning objective: To identify and explain the effects of forces including friction and air resistance on moving objects.

Join Nova the owl to investigate how forces affect movement. Choose an object, test how it moves across different surfaces, and record your findings below to see how friction changes the result.

Word bank: friction · surface · resistance · force · push · pull · grip · smooth · rough · motion

1. My Prediction: Which surface do you think will be the most difficult for your object to move across and why? (2 marks)

2. The Method: Briefly describe the steps you took to test the force needed to move your object across two different surfaces. (3 marks)

3. Observations: What happened to the speed of your object when you moved it from a smooth surface to a rough one? (2 marks)

4. Scientific Reasoning: Use the word 'friction' to explain why your results happened the way they did. (3 marks)

5. Conclusion: If you wanted your object to move as fast as possible, what kind of surface would you choose and why? (2 marks)

Extension challenge: Nova wants to know how air resistance works! Research how the shape of a parachute helps it slow down. Can you draw a design for a parachute that would create more air resistance?