Lesson 16

Gravity, falling and air resistance: the spinner fair test

energy-forces

What you need: plain A4 paper for spinners (pupils rule and cut their own) · round-tip scissors · metal paperclip · metre stick or wall height mark · stopwatch or phone timer · ready-made paper spinner and matching crumpled paper ball (teacher demo)

Words to use

Air resistance · Gravity · Fair test

Our question

Does wing length change how long a paper spinner takes to fall?

I predict…because…

Sort these into Change, Measure and Keep the same

wing length · fall time · drop height · the paper · the paperclip

Change — the ONE thing we change

Measure — the ONE thing we measure

Keep the same — to make it fair

Our two spinners — measure the wings before you drop

Spinner	Wing length (cm)	Trial 1 (s)	Trial 2 (s)	Average (s)
Short wings				
Long wings				

Trust check: one thing that could have made a time wrong (a late stop, a knock, a draught)

Which wing length fell more slowly, and what that says about air resistance?