

OUR LEAD STATE OF BEING IS:
SCIENTIST



This Term's First Enquiry Question is: What do forces actually do?

OUR SUPPORTING STATE OF BEING IS:
ENGINEER

Working as Scientists

Alongside the learning as scientists, pupils will gain understanding of mechanical systems, for example, gears, pulleys, cams and levers.



Working as Scientists

This is a mini-enquiry - designed to teach just the Scientist that includes:

- Gravity
- Air resistance
- Water resistance
- Friction

Science skills will include: planning scientific enquiries, answering questions, recognising variables, taking measurements using a range of scientific equipment with accuracy and precision, taking repeat readings when appropriate and finding the average.



WE ARE MATHEMATICIANS

Core Subjects
Coverage:

WE ARE AUTHORS



Y4 and 5- Area, perimeter and volume. Shape: angles, drawing shapes.

Quadrilaterals. 2D and 3D. Position and direction: coordinates, reflections, symmetry and translation.

Y6 - Area and perimeter of rectilinear shapes and triangles; volume. Angles and circles. Coordinates, translations and reflections in all four quadrants.

Focused Texts: *A Detailed Timeline of ...* In this writing, we will be recounting and informing the reader about the chronology of different aspects of history. Links will be made to our enquiry.

Grammar and punctuation: Use of the comma, semi-colon, colon and dash to mark the boundary between independent clauses [for example, *It's raining; I'm fed up*]. Use hyphens. Use a range of sentence starts and structures. Develop the use of language for effect.

Spelling: Spell and use all statutory words for their year group. Exploring prefixes and suffixes. Contractions, exploring different phonemes and their pronunciations.

Reading: Develop a reading habit based on reading for pleasure. Take part in informal book talk. Read a range of texts with fluency, building stamina to increase their words read per minute. **Inference:** write detailed answers to questions using the text.



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Milestones in learning:

KEY VOCABULARY

weight	resistance
lever	gravity
engineer	up thrust
distance	mass
force	pulley
power	buoyant
strength	

IKH Milestone

Learners recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. Learners should take measurements, with increasing accuracy.



IKO Milestone

Learners can explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.



PKO Milestone

Learners can identify and investigate the effects of air resistance, water resistance and friction, that act between moving surfaces. They record data and results with increasing accuracy.



PKH Milestone

Learners can draw labelled diagrams to explain the effects of air resistance, water resistance and friction. They can describe how some mechanisms work.

