

OUR LEAD STATE OF BEING IS:  
SCIENTIST



# Can you feel the force?

Term 5

## We are Scientists

In this Enquiry, learners will explore forces and magnetism. They will compare how things move on different surfaces and notice that some forces need contact between two objects, but magnetic forces can act at a distance. Learners will observe how magnets attract or repel each other and attract some materials and not others; compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet and identify some magnetic materials; describe magnets as having two poles and predict whether two magnets will attract or repel each other, depending on which poles are facing.

**Working Scientifically:** Learners will be expected to set up simple practical enquiries that include comparative and fair tests with increasing independence. They will use straightforward scientific evidence to answer or to support their findings and write their own conclusion using then PEEL structure (Point, explain, evidence, link back).

OUR SUPPORTING STATE OF BEING  
IS: ENGINEER



## We are Engineers

Learners will be using their scientific knowledge to plan, make and evaluate a magnetic game. Learners will select and use tools and materials. They will evaluate and develop their ideas against their own design criteria.



WE ARE MATHEMATICIANS

**Year 3-Fractions:** add and subtract fractions, find fractions of objects and amounts. **Year 4- Decimals:** make, partition and compare decimals to hundredths.

**Year 3 and 4- Money:** record, estimate and compare amounts of money. Add and subtract money within problem solving.

**Year 3 and 4- Time:** tell the time to the nearest 5 minutes (analogue and Y4-24 hr.). Convert units of time and calculate duration of events.

## Core Subjects Coverage:

**Focused Texts:** *The Iron Man* (Narrative-Sci-Fi and *How a Robot Dog works* (Explanation)  
**Grammar and punctuation:** fronted adverbials, commas, using a range of adverbs, securing the use of the apostrophe for possession and contraction. Question, explanation marks and hyphens. Inverted commas for dialogue. Varying sentence starts and sentence structures across all writing. **Spelling:** Adding prefixes and suffixes to root words. Homophones and synonyms. Using phonics to support spelling. **Reading:** Focus on word choice and meaning and inference in narrative and non-fiction.

WE ARE AUTHORS



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## CAN YOU FEEL THE FORCE?

### KEY VOCABULARY

FORCE	NORTH POLE
PUSH	SOUTH POLE
PULL	TWIST
EVALUATION	SURFACE
EXPLANATION	FRICTION
REPEL	CONCLUDE
ATTRACT	CONCLUSION
MAGNETIC	MAGNETIC
MAGNET	STRONG
SURFACE	WEAK

### MILESTONES

1. LEARNERS CAN COMPARE AND GROUP TOGETHER A VARIETY OF EVERYDAY MATERIALS BASED ON THEIR MAGNETIC PROPERTIES.
2. LEARNERS NOTICE THAT SOME FORCES NEED CONTACT BETWEEN TWO OBJECTS, BUT MAGNETIC FORCES CAN ACT AT A DISTANCE. THEY UNDERSTAND HOW THINGS MOVE ON DIFFERENT SURFACES.
3. LEARNERS CAN SELECT AND USE TOOLS AND MATERIALS. THEY CAN EVALUATE AND DEVELOP THEIR IDEAS AGAINST THEIR OWN DESIGN CRITERIA.
4. LEARNERS CAN PREDICT WHETHER TWO MAGNETS WILL ATTRACT OR REPEL EACH OTHER, AND DESCRIBE MAGNETS AS HAVING TWO POLES. THEY CAN SET UP FAIR TESTS AND USE EVIDENCE TO SUPPORT FINDINGS.