

### Scientific knowledge

- I can compare how things move on different surfaces.
- I can notice that some forces need contact between two objects, but magnetic forces can act at a distance.
- I can observe how magnets attract or repel each other and attract some materials and not others.
- I can 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.
- I can observe how magnets attract or repel each other and attract some materials and not others.
- I can describe magnets as having two poles.

### Links to Maths Learning

#### *Statistics*

Interpret and present data using bar charts, pictograms and tables (Yr3)

Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs (Yr4)

#### *Measurement*

Measure, compare, add and subtract: lengths (Yr3)

Convert between different units of measure (Yr 4)

## **FORCES and MAGNETS**



### *Magnetic fun and games*

*Help design a fun magnetic activity for the local Science Fair!*

### Scientific enquiry

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using straightforward scientific evidence to answer questions or to support their findings

### Lines of enquiry

*It is important we understand 'how' we learn about Science.*



Observing over time – Scrutin – eyes



Comparative and fair testing – Fair Flo



Identifying, classifying and grouping - Commander Classify



Pattern Seeking – Pattern Man



Research using secondary sources – Roger Research