





## Y3: Magnets Workshops with Mercedes (School Scientist-in-Residence), Autumn 2023

- LO: To be able to identify magnetic materials
  - LO: To investigate uses for magnets

This term year 3 are studying magnets. At the start of the session, the students were given a box of objects made of a variety of materials. They started by sorting the objects into two piles, what they thought would be magnetic, and what wouldn't. The students then used magnets to test all the objects to see whether they were right! Next, students investigated the uses of magnets, including making compasses using water, paperclips, and paper in a bowl, turning the paper clip using magnets to symbolise the earth.







Next they built a mini Maglev train, which uses magnetic repulsion to glide along above train tracks, reducing friction and allowing it to work in all weathers. They also made paperclips hang in the air using magnetic attraction, with the paperclips attached to string and pulled just far enough from the magnet to still feel the effects of the magnetic force, whilst not being in contact with the magnet.







We finished the session by looking at videos on electromagnets, which use currents to create non-permanent magnetic fields around wires, and have lots of uses, including in loudspeakers (which are also in headphones and earphones) and electric motors, which are used in many places including vacuum cleaners, washing machines and electric toothbrushes!

## Student Voice

'It was very interesting and I learned a lot about magnets and how they are used in our everyday lives.

I would give the workshops a 10 star rating!'

'It was fun because we carried out an experiments with a lollypop and magnet and it was like it was floating.'

'There was a huge plate with different materials and we had to sort out the magnetic materials from the non-magnetic materials.'

'I liked the videos of the Maglev trains that were floating. I was surprised that credit cards had magnets in them.'

Kind regards, Miss Kelly & Mrs Hayes - Science co-ordinators

