Year 3 Leamington Primary School Knowledge Organiser: Forces and Magnets – Year 3

Careers connected to forces and magnets: radiographer, magnetic engineer, railway engineer

Lesson Sequence

1. Explore contact and non-contact forces

2. Compare how things move on different surfaces

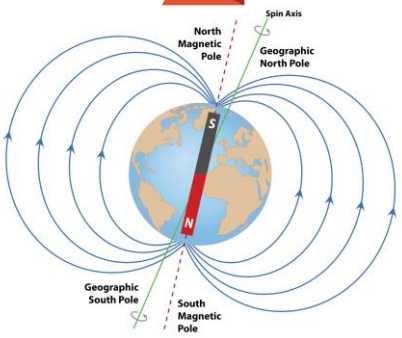
3. Explore different types of magnets

4. Explore the properties of magnets and everyday objects that are magnetic

5. Understand that magnetic forces can act at a distance

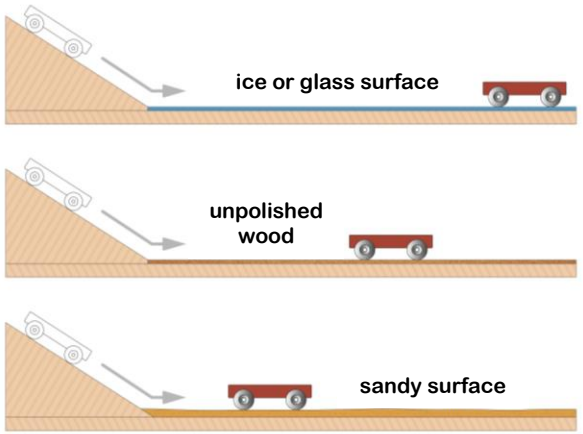
6. Explore the everyday uses of magnets

How do magnetic poles work?



The ends of a magnet are called poles. One end is called the north pole and the other end is called the south pole. Opposite poles attract; similar poles repel. If you place two magnets so the south pole of one faces the north pole of the other, the magnets will move towards each other. This is called attraction. If you place the magnets so that two of the same poles face each other, the magnets will move away from each other. They are repelling each other.

Friction



Forces

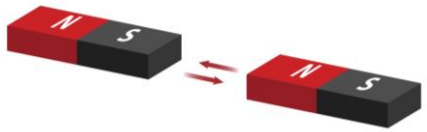
- Forces act in opposite directions to each other.
- When an object moves across a surface, **friction** acts as an opposite force. Friction is a force that holds back the **motion** of an object.
- Some surfaces create more friction than others, meaning that objects move across them more slowly.
- On a ramp, the force that causes the object to move downwards is gravity.
- Objects move differently depending on the **surface** of the object itself and the surface of the **ramp**.

non-magnetic

magnetic

Magnetic Forces

Attraction



Repulsion