

Our Learning Keys

Forces and Magnets

Science

Year 3

Summer 1

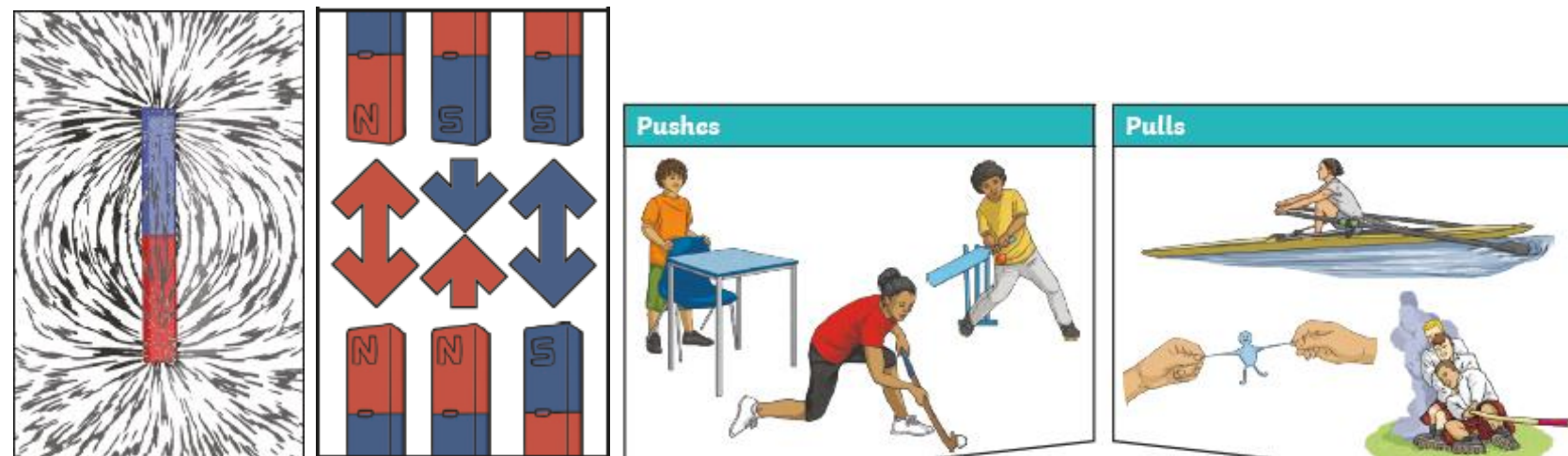
Questions

- What are forces?
- How do different surfaces affect the motion of an object?
- How do magnets work?
- Which materials are magnetic?
- What are magnetic poles, and how do they work?

Vocabulary

magnet	a material which attracts magnetic materials towards it
magnetic field	the area around a magnet where there is a magnetic force
attract	to pull something closer
repel	to push something away
gravity	the force which pulls objects to the ground
motion	moving from one place to another
resistance	the force which slows down an object which is moving
pull	to move something towards
push	to move something away

Images



Facts

- Forces are pushes and pulls - they make objects start or stop moving, speed up or slow down.
- Some examples of forces include:
 - Gravity - the force which pulls objects to the ground
 - Friction - the force which slows an object down when it moves - resistance is a type of friction.
- Forces can act against each other - gravity pulls an object down a slope while friction slows the object down.
- Different surfaces with different properties can affect how an object moves - a rough surface will cause more friction than a smooth surface.
- Magnets create a force around them called a magnetic field. If a magnetic object enters this field, it will be attracted towards or repelled from the magnet.
- Some metals are magnetic, such as steel and iron. Some metals are not magnetic, such as aluminium.
- Magnets have many different uses, such as helping trains to move incredibly fast.

Previously...

In Key Stage 1, we learned that materials can be changed by being stretched, squashed, twisted and bent.

Now

Next...

In Year 5, we learn about more forces and how they act on objects, as well as gravitational pull.

Links

- PE - using pushes and pulls in gymnastics and ball games
- Maths - making graphs or charts of the results of investigations.

Doors this will open...

Engineer

Robotics

Inventor

Electrical technician