

# Forces



# Physics

## National Curriculum

Compare how things move on different surfaces. Notice that some forces need contact between two objects, but magnetic forces can act at a distance. 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. Predict whether two magnets will attract or repel each other, depending on which poles are facing.

| Core Vocabulary |           |            |            |
|-----------------|-----------|------------|------------|
| attract         | repel     | similar    | opposite   |
| friction        | pull      | poles      | contact    |
| magnetic        | push      | north      | south      |
| magnet          | fair test | prediction | conclusion |

Key: **Disciplinary** **Substantive** **Bigger picture**

## Glossary of key words and their meanings

|          |  |
|----------|--|
| attract  |  |
| repel    |  |
| friction |  |
| magnetic |  |

| Learning Intent Questions   | Pupil | Teacher |
|---|-------|---------|
| How can we compare and group different materials according to whether or not they are magnetic?   |       |         |
| How can we describe magnets according to their two poles?   |       |         |
| How can we use our knowledge of poles to make predictions about if magnets will repel or attract? |       |         |
| Why do some magnets attract and repel?  |       |         |
| Why do some forces require contact between them but magnetic force can act at a distance?         |       |         |
| How can we compare how things move on different surfaces?   |       |         |