Age 8–12

Magnet and compass

The kit contains work resources for two related topics:

Lessons about magnets

Pupils can investigate the properties of magnets, including how every magnet has two poles, how like poles repel and unlike poles attract. They can learn this from experiments involving magnetic carriages, for example.

Half of the 30 bar magnets do not have their poles marked on them, so that pupils can determine which are the north and south poles for themselves.

Lessons about the magnetic compass

Experiments with bar magnets suspended from stands or floating on plates lead to an understanding of how compasses work:

- Magnets always align themselves (like compass needles) in a north-south direction.
- Pupils can use a compass card, needle and case to assemble their own compasses, identify compass points and find north on a map.

Included in delivery:

Teacher's manual

- With sheets for each work place including basic information on the topic and on the organisation of workstations
- plus supplementary educational and organisational tips about the experiments.

▶ In a case with foam insert for transport and storage (540 x 450 x 150 mm):

Bar magnets with and without red marked north pole	Horseshoe magnet
Mini-waggons for bar magnets	Magnetic door-closer
Floating platforms	Sight compass
Stands for bar magnets	Compasses for exercises
Water dishes	Compasses for self-assembling
Large bar magnets	Materials for attraction examination
Disc magnets	

31756 Materials for 15 work groups

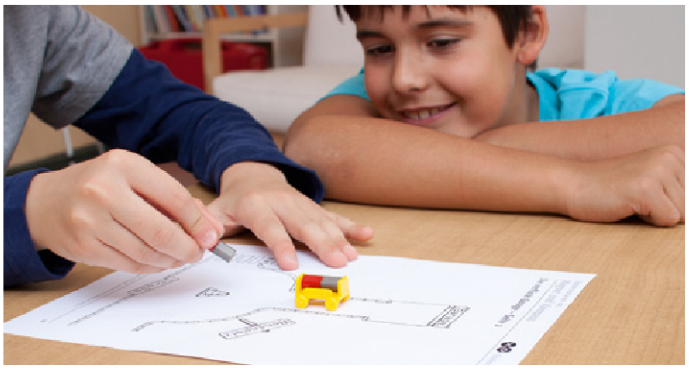
▶ Teacher's manual *'Experiments in workstations: Magnet and compass'*

With copy templates covering 24 workstations, where the equipment in the kit can be used in experiments:

Magnet – Iron
- The big material test
- A 'metal exhibition'
- Uncle Scrooge's fishing game
- The big iron test
- Rusty bike?
- Using paper clips to find magnets

Magnetic force
- The swinging paper clip
- The walking scarecrow
- The dancing snake
- The floating paper clip

Pro and Contra
- The bewitched second magnet
- Magnets in a tube
- The bewitched garage
- The submarine trip

Mixed information about magnets
- How people discovered magnets
- The biggest magnet we know
- The teacher's magnet exhibition
- Make your own magnets
- Magnets without marked north poles

Hanging, floating and turning magnets
- Floating magnets
- Hanging magnets
- Making compasses, using hanging and floating magnets
- Floating compass needles
- 'Real' compass