MAGNETISM INVESTIGATION

KEY STAGE(S): 2-3

SUBJECT(S): Science

TOPIC: Forces

LANGUAGE LEVEL: New to English - Fluent

RESOURCE CONTENTS

- Magnetic/non-magnetic investigation
- Useful phrases for discussion cards

CURRICULUM OBJECTIVES

- Understand how magnets behave
- Understand which materials are magnetic and which are not

Language functions	Useful Language
Predicting	• I think (the) _____ will be magnetic • I think (the) _____ will be non-magnetic
Expressing an opinion	• I think/don't think (the) _____ is magnetic • I'm not sure if (the) _____ is magnetic
Agreeing / disagreeing	• I think/don't think that's right because _____ is made of _____ • I agree with you because _____ is made of _____ • I don't agree because …
Clarifying	• I don't understand what you mean • Please can you say that again?

Vocabulary

- **Magnetism:** attract, attraction, magnetic, non-magnetic
- **Substances:** metal, rubber, plastic, aluminium, steel, iron
- **Everyday objects:** dice, pencil sharpener, bulldog clip, pencil, scissors, ruler, felt pen

PREPARATION

You will need:

- A magnetic/non-magnetic investigation sheet for each pair or group
- Real objects listed on the sheet (dice, pencil sharpener, bulldog clip, pencil, scissors, ruler, felt pen) and magnet to test them with
- Useful phrases for discussion cards for beginners needing additional support

You will need to:

- Print out the magnetic/non-magnetic sheets

- Make the useful phrases for discussion cards by printing off the PowerPoint as two-to-a page (recommended) or six-to-a page handouts and cutting them up. These can be printed onto card, or printed onto paper and laminated, for reuse.

IDEAS FOR USING THE RESOURCE

This resource could be used:

- whole class working in groups
- as differentiation within class
- one to one or small group

What to do

- Organise the learners into groups or pairs to carry out the investigation as a collaborative activity. Give each group or pair one sheet between them and ask them to fill in the middle column, predicting which objects will be magnetic and which will be non-magnetic. The useful phrases for discussion cards can be used as required to scaffold the discussion and model the target language. The phrases in pink are for learners to use when giving opinions about whether or not something is magnetic, whereas the ones in green to model the more general language of discussion – expressing agreement or disagreement or asking for clarification.
- When they have completed their predictions, give them the real objects and a magnet to test if they were right, and fill in the rest of the chart.

Other ideas for making the best use of this resource

- Differentiation could be through group, support or turn differentiation. Group differentiation would be by organising mixed ability groups or pairing a more articulate learner with a pupil learning English as an additional language, or organising first language groups. Support differentiation could be used by deploying Teacher Assistant support to model language and facilitate interaction between group members. Turn differentiation could be used by asking those who are able to explain their answers effectively first, then giving EAL learners an opportunity to formulate their own answer based on that of others.

POSSIBLE EXTENSION ACTIVITIES

- Groups or pairs could collect together a further selection of objects to first predict whether they will be magnetic or not and then to test.
- Groups or pairs could formulate a general rule about magnetism.

Magnetic	Not sure	Non-magnetic