



**Practical  
Science**

# Working Scientifically for 8-10 year olds

- Practical hands-on science activities
- Contains comprehensive teachers' notes and lesson ideas

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Teachers' Notes	..... page 4
Presentation Ideas	..... page 5
Curriculum Links	..... page 6
 <b>Lesson 1: Magnetic Attractions (1)</b>	
Teachers' Notes	..... page 8
Activity 1a	..... page 9
Activity 1b	..... page 10
 <b>Lesson 2: Magnetic Attractions (2)</b>	
Teachers' Notes	..... page 11
Activity	..... page 12
 <b>Lesson 3: Magnetic Directions</b>	
Teachers' Notes	..... page 13
Activity 3a	..... page 14
Activity 3b	..... page 15
 <b>Lesson 4: Pendulums (1)</b>	
Teachers' Notes	..... page 16
Activity	..... page 17
 <b>Lesson 5: Pendulums (2)</b>	
Teachers' Notes	..... page 18
Activity 5a	..... page 19
Activity 5b	..... page 20
 <b>Lesson 6: My Pendulum Test</b>	
Teachers' Notes	..... page 21
Activity 6a	..... page 22
Activity 6b	..... page 23
 <b>Lesson 7: Apple Bridges (1)</b>	
Teachers' Notes	..... page 24
Activity	..... page 25
 <b>Lesson 8: Apple Bridges (2)</b>	
Teachers' Notes	..... page 26
Activity	..... page 27



# Magnetic Attractions (1)

**Learning Outcomes:**

- Conducts simple tests and describes observations.
- Identifies patterns and groupings in information to draw conclusions.

**Materials:**

- 2 small magnets per child, pair or group
- access to classroom items to test

Students can choose whatever they can see around the classroom, including things like the board, windows and heaters. For a more ordered lesson, a selection of objects in a tray for each group could be provided. These could include items such as:

- |                     |                  |                  |                 |
|---------------------|------------------|------------------|-----------------|
| • paper clip        | • ping pong ball | • cuisenaire rod | • chalk         |
| • cardboard counter | • ball bearing   | • biro           | • beanbag       |
| • tennis ball       | • teaspoon       | • drawing pin    | • rubber/eraser |
| • pop stick         | • scrap paper    |                  |                 |

**Lesson Ideas:**

As an introduction to magnets each child/group should have time to examine two magnets.

- Children describe the magnet shapes and include any markings they may have. Students then draw the magnets on their worksheet.
- Children write predictions about what they think might happen when the magnets are placed in certain positions. They then test to see if their predictions were correct. Students draw and describe what happens. Relate to how magnets “repel” and “attract”.
- Using the second worksheet (see Page 10), children conduct a small test on ten random classroom items. It is probably best to have students working in small groups with a tray of items, or selected students from each group could walk around the classroom testing some of the larger items, such as the heater or the windows.
- If providing a set of materials, remember to add some items that are *not* magnetic. \*Children complete the table on their worksheet and draw the “attracted” (or magnetic) items. They then make a statement regarding attracted items.

**Integration Ideas:**

**Society and Environment / SOSE / HSIE:** Children research the uses of magnets in society and the discovery of magnets in history. These websites are a good starting point for research:

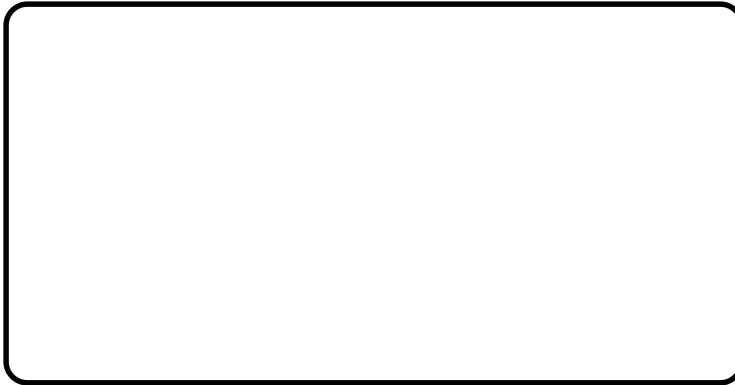
- ▶ [www.sciencetech.technomuses.ca/english/schoolzone/Info\\_Magnets.cfm](http://www.sciencetech.technomuses.ca/english/schoolzone/Info_Magnets.cfm)
- ▶ [www.exploratorium.edu/snacks/iconmagnetism.html](http://www.exploratorium.edu/snacks/iconmagnetism.html)

**English (Speaking and Listening):** Children prepare and present talks on magnets using the worksheet and their findings as a guide.

- Hang magnets around the room in different positions to demonstrate how they work. Children can create labels for this display.

**A**

Draw your two magnets and write two sentences describing these magnets.



• \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

• \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

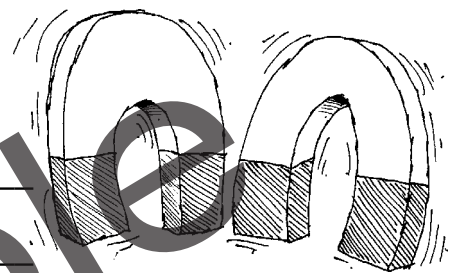
**B**

## Prediction

What do you think will happen if the two magnets are placed near each other?

\_\_\_\_\_

\_\_\_\_\_



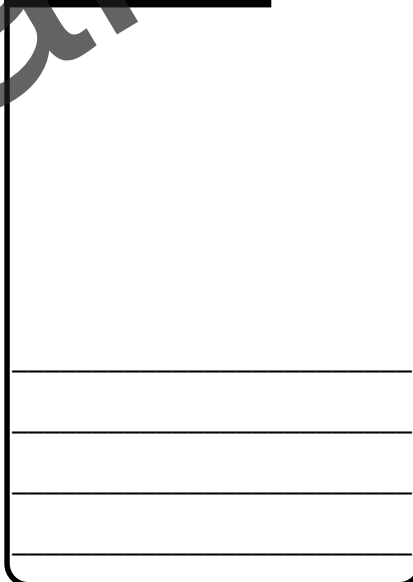
**C**

Place the two magnets near each other in three different positions. Draw these positions in the boxes below and describe what happened to the magnets in each position.

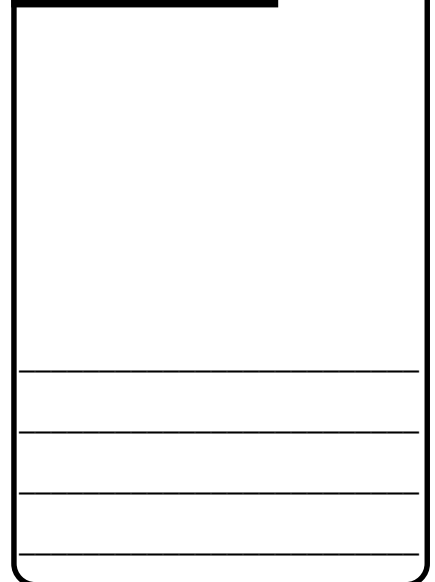
**Position 1 ▶**



**Position 2 ▶**



**Position 3 ▶**



**D**

What can you say about the way magnets act when they are placed together?

\_\_\_\_\_

\_\_\_\_\_