To teachers We have prepared worksheets to accompany the experiments in the instructions, which you can copy and use in your teaching.

SCIENCE TEACHING MATERIALS 理科教材

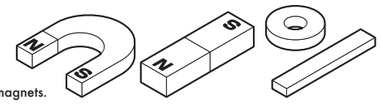
Magnet (Type SB) WORKSHEET

Name	Year	Class

Find out what is and is not attracted to magnets

Experiment 1 What is attracted to magnets?

- Find out what can be attracted by magnets



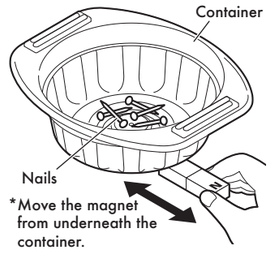
☆Circle the items that are attracted to magnets and draw a cross for items that are not attracted to magnets.

Attracted by magnets	Prediction	Result
Nails		○
paper clips		○
pipe cleaners		○
iron		○
iron bars		○
sponges		×

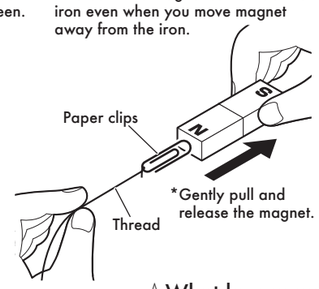
Attracted by magnets	Prediction	Result
bulldog clips		○
Eraser		×
scissors (blade part)		○
scissors (handheld part)		○
empty cans (aluminium)		×
empty cans (steel cans)		○

Experiment 2 Strength of magnet

Find out if the magnet can attract iron, even if there is non-magnetic material in-between.



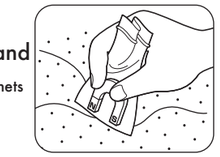
Find out if the magnet can attract the iron even when you move magnet away from the iron.



Let's Try!

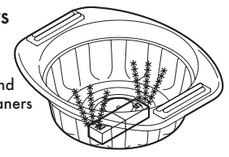
Collect iron sand

- Let's put the magnets in the sandbox.



Play with pipe cleaners

- Place a bar magnet under the container and let the pipe cleaners stand on it.



☆What happened to the nail?

<Example>
The nail moved in accordance with the movement of the magnet.

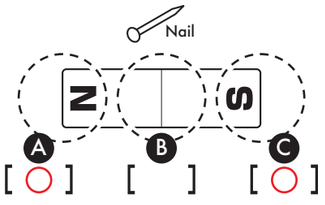
☆What happened to the paper clip?

<Example>
The paper clips were attracted even when the magnets were separated.

What are the properties of the magnet?

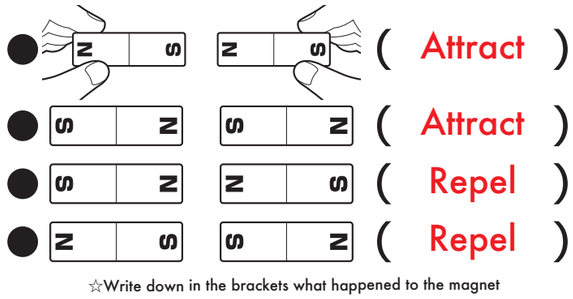
Experiment 3 Poles of the magnet

- Find out which point Ⓐ Ⓑ Ⓒ of the bar magnet is the nail attracted to the most



☆ Tick in the box the point where the nail is most attracted to.

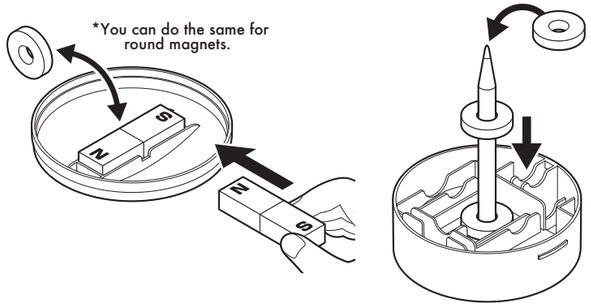
- Move the two bar magnets close to each other andcheck the response at points Ⓓ Ⓔ Ⓕ Ⓖ.



☆Write down in the brackets what happened to the magnet

Various experiments with poles

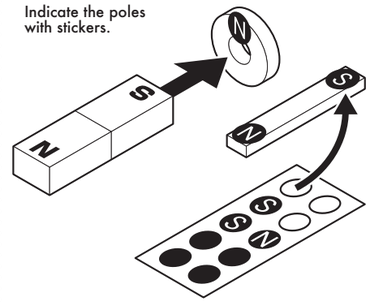
- Place a bar magnet on the lid of the case and bring another bar magnet close to it.
- Place the pencil at the bottom of the case and pass a round magnet through it.



Magnetic poles are not known

- Put the bar magnets close to each other to find out where the poles are.

Indicate the poles with stickers.



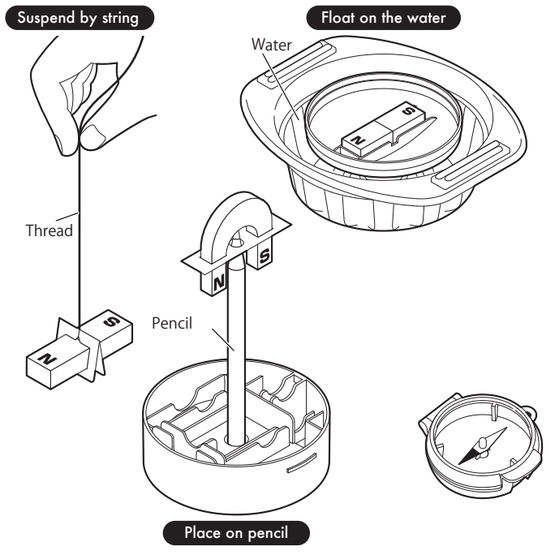
Experiment 4 Magnet suspended by string

*Experiment without other magnets close around.

- Find out what happens to a magnet that is allowed to move freely, as shown in the diagram.

Suspend by string

Float on the water



☆ What happened to the N and S poles when you use thread, pencil and water respectively?

<Example>
For thread, pencil, and water, the magnet all stopped in the same direction.

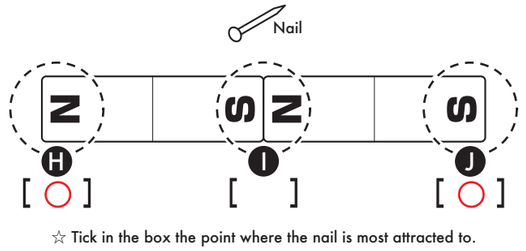
- Compare with the compass needle to see if there are any differences in movement.

☆Were there any difference from the compass?

<Example>
There was no difference between the compass and the movement of the magnet.

Let's Try! 2 Magnets

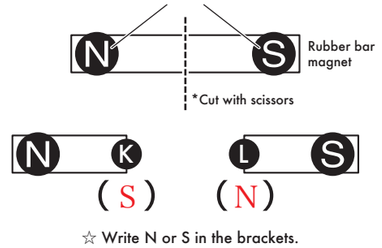
- Find out which point Ⓗ Ⓘ Ⓙ of the bar magnet is the nail attracted to the most



☆ Tick in the box the point where the nail is most attracted to.

- Find out what happens to the poles Ⓚ Ⓛ when a rubber bar magnet is cut in half.

*Check the pole and paste the N/S stickers over them.



☆ Write N or S in the brackets.

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