

Make Your Own Compass

3

You Will Need:

6

• a sewing needle

12

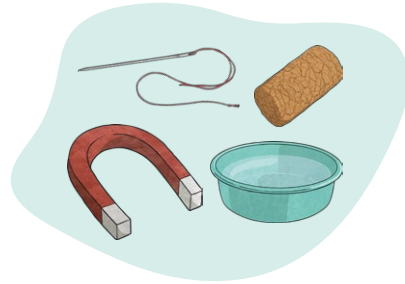
• a bottle cork (cut to 2cm)

14

• a magnet

18

• a bowl of water



19

Method:

30

1. First, use one end of your magnet to stroke your needle in one direction only, lifting the magnet up after every stroke. Do this at least 50 times.

39

48

59

2. Repeat step 1 on the other side of your needle.

70

73

3. Next, ask an adult to help you push your needle through the cork.

82

87

4. After that, place your cork and magnetised needle in the bowl of water.

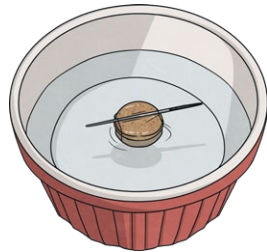
94

101

108

112

5. The needle and cork should turn so that it faces north. This means that the needle has lined up with the Earth's magnetic field!



Questions



1. How many times do you need to stroke the needle with the magnet?



2. Predict what would happen if we removed step 2 from the instructions.



3. How does the layout of the text help the reader to follow the instructions?



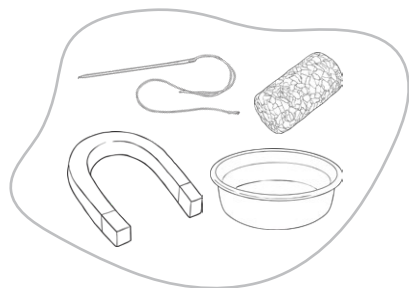
4. Write a definition of the word 'magnetic'.

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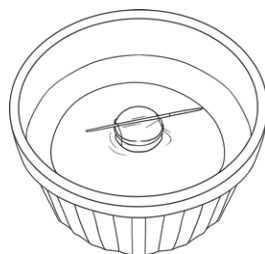
You Will Need:

- 3
- 6 • a sewing needle
- 12 • a bottle cork (cut to 2cm)
- 14 • a magnet
- 18 • a bowl of water



Method:

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- 30 1. First, use one end of your magnet to stroke your
- 39 needle in one direction only, lifting the magnet up
- 48 after every stroke. Do this at least 50 times.
- 59 2. Repeat step 1 on the other side of your needle.
- 70 3. Next, ask an adult to help you push your needle
- 73 through the cork.
- 82 4. After that, place your cork and magnetised needle
- 87 in the bowl of water.
- 94 5. The needle and cork should turn
- 101 so that it faces north. This means
- 108 that the needle has lined up with
- 112 the Earth's magnetic field!



Answers



1. How many times do you need to stroke the needle with the magnet?

You need to stroke the needle with the magnet at least 50 times on each side.



2. Predict what would happen if we removed step 2 from the instructions.

Pupils' own responses, such as: If we removed step 2 from the instructions, the compass wouldn't work as the needle wouldn't be fully magnetised.



3. How does the layout of the text help the reader to follow the instructions?

Pupils' own responses, such as: The layout of the text allows you to collect your resources by telling you what you will need and then has a step-by-step guide which is easy to follow.



4. Write a definition of the word 'magnetic'.

Pupils' own responses, such as: Something that can be attracted to or pulled by a magnet.

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