

MAGNETIC FORCES

You need to know that: there are forces of attraction and repulsion between magnets AND forces of attraction between magnets and magnetic materials.

MAGNETS QUIZ

1. The force that pulls 2 magnets towards each other is
 - a. friction
 - b. attraction
 - c. repulsion
2. The force that pushes 2 magnets apart is
 - a. attraction
 - b. gravity
 - c. repulsion
3. Most magnets have 2 ends, these are called the north and south
 - a. parts
 - b. poles
 - c. areas
4. When the north pole of one magnet is placed next to the north pole of another magnet they
 - a. repel
 - b. do nothing
 - c. attract
5. When the north pole of one magnet is placed next to the south pole of another magnet they
 - a. do nothing
 - b. repel
 - c. attract
6. Which of these is the only magnetic material?
 - a. plastic
 - b. steel
 - c. wood

YOUR TASK

Aim: To test 2 different magnets to find out which has the strongest magnetic pull or force. (Copy this down)

You will need: 2 different magnets, a ruler which shows mm, a paper clip OR pin, a flat table top.

Test to see how far each magnet can pull your pin or paper clip along a flat table top.

Test each magnet in EXACTLY the same way and do the test 10 times for each magnet. Under the heading Method, write 4 sentences describing what you did; draw a labelled diagram to help show this.

Record your results in mm (use a table like the one below).

Test number	Distance paper clip/pin pulled (mm)	Distance paper clip/pin pulled (mm)
	Bar magnet	Horseshoe magnet
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Mean Average		

To work out the mean average just add the 10 results then divide the answer by 10. Do this for both magnets.

Under the heading Conclusions write down what you found out about the strength of your 2 magnets.

RECORDING SHEET

Aim: We wanted to find out which of two
_____ had the strongest pulling _____.

Method: We put a paper clip/pin on the _____ next to
the 0mm mark on a _____. We then moved a magnet
slowly towards it, along the line of the ruler. We recorded
how far away the magnet was when it
_____ the paper clip/pin towards it.

Results:

Test number	Distance paper clip/pin pulled (mm)	Distance paper clip/pin pulled (mm)
	Bar magnet	Horseshoe magnet
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Mean Average		

Conclusion: We found out that the _____ magnet
was the strongest.

<u>Word Bank</u>	
magnetsforce	table
ruler	pulled