

Name:

Date:

Science Assessment Year 3: Forces and Magnets

Pushes and Pulls

1. Circle the correct word from each box:

A force is a or a acting on an .

Forces can make objects or or go

or .

5 marks

2. Write **push** or **pull** in each row to finish the table below:

(The first one has been done for you.)

Activity	Push or Pull?
Jumping on a trampoline	push
Hitting a ball with a bat	
Getting ready to fire an arrow	
A car taking a trailer somewhere	
Tying shoe laces	

3 marks

3. Write **start** or **stop** in each row to finish this table:

Activity	Start or Stop?
Pulling your brakes on your bike	stop
Kicking a ball	
A piece of toast landing on the floor	
Pedalling a bike	
Throwing a paper aeroplane	

3 marks

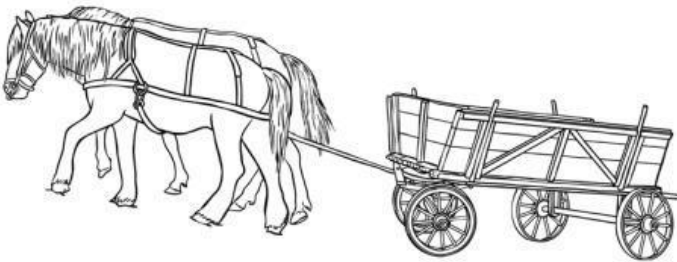
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4. Where is the pushing force coming from in this picture?



1 mark

5. Where is the pulling force coming from in this picture?



1 mark

Magnets

6. Circle the metals that magnets can pick up:

Gold

Iron

Aluminium

Steel

Cobalt




Copper

Silver

Nickel

2 marks

7. Write **attract** or **repel** on these bar magnets below:

Magnets	Attract or Repel?
	
	
	

2 marks

Total for this page

8. Name another type of magnet.

1 mark

9. A compass uses magnetism. Which way does a compass always point?

1 mark

10. If we do an investigation on different magnets to see how far away they were before they picked up a paper clip, what would we find out about the magnets?

1 mark

Here are the results of the magnet investigation

Magnet	Distance when attracted paperclip
Medium sized horseshoe magnet	6cm
Large bar magnet	10cm
Fridge magnet	2cm

11. Which is the strongest magnet?

1 mark

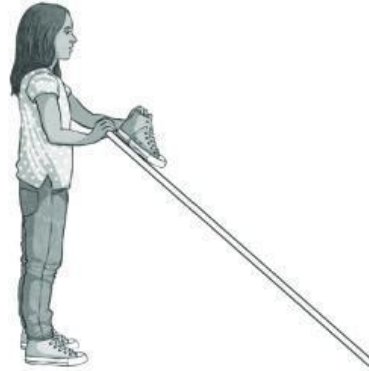
12. Which is the weakest magnet?

1 mark

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Gripping Surfaces Investigation

A group of Year 3 children carried out an investigation where they had some planks of wood with different coverings. They made each plank into a ramp and put a shoe at the top. They measured how high they had to lift the plank before the shoe slid down it.



Here are the results from that investigation in a table:

Surface on plank	Height of plank when shoe slid down
Carpet	70cm
Rough wood	43cm
Rubber bath mat	82cm

13. What do these results tell you?

.....

1 mark

14. What is the name of the force that is stopping the shoe sliding down and making it grip?

.....

1 mark

15. Can you predict how high the plank would be for a smooth plastic surface similar to a slide in an adventure playground?

.....

1 mark

Total for this page