

SCIENCE REVISION PACK

UNIT 4 - MAGNETISM

WHAT HAVE YOU LEARNT?



Name: _____

Grade 4/ Year 5: _____

Q1. Find out whether these magnets will *attract* or *repel*



[Attract / Repel]



[Attract / Repel]



[Attract / Repel]



[Attract / Repel]

Q2. A compass uses magnetism. Which way does a compass always point?

☐ East

☐ West

☐ North

☐ South



Q3. Tick [✓] the metals that magnets can pick up:

☐ Gold

☐ Cobalt

☐ Iron

☐ Copper

☐ Aluminium

☐ Silver

☐ Steel

☐ Nickel

Q4. Complete the sentences using the word bank below.

repel north attract south pull push poles

Magnets have two _____. One is called the _____ pole and the other is the _____ pole. When opposite poles are near one another, they _____ together. This means the two poles _____. When two of the same poles are near one another, they _____ away from one another. This means the two poles _____ each other.

Q5. 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?

- ☐ How far is the paper clip ☐ How strong is the magnet

Q6. Here are the results of the magnet investigation.

a. Which is the strongest magnet?

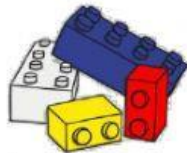
a. Which is the weakest magnet?

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

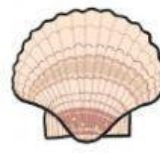
Q7. Tick (✓) the magnetic objects:



☐ Steel can



☐ Blocks



☐ Shell



☐ Cobalt ring



☐ Glass



☐ Nickel keyring

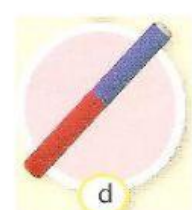
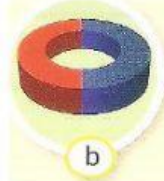


☐ Sponge



☐ Steel spanner

Q8. Name each type of magnet below:



Circular magnet

Cylindrical magnet

Bar magnet

U-shaped magnet

Horseshoe magnet

Ring magnet

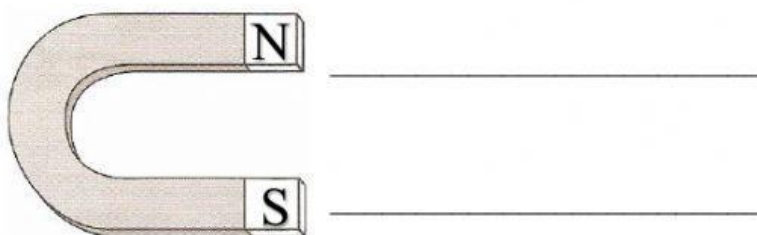
Q9. Tick (✓) the correct sentences and cross (✕) the wrong sentences:

- a. Some magnets have just one magnetic pole. []
- b. Magnets can interact without touching. []
- c. Electromagnets are useful because they can easily be turned on and off. []
- d. The magnetic field strength of a magnet is weakest at the poles. []
- e. An electromagnet is a permanent magnet. []
- f. Magnets produce an area of magnetic force called a magnetic field. []
- g. Iron, Nickel, Steel and Cobalt are magnetic materials. []

Q10. Choose the right answer:

- 1. A magnet can attract any material that is made from _____.
{Wood Plastic Iron}
- 2. An example of non-magnetic material is _____.
{Paperclip Glass cup Steel can}
- 3. Magnetic field lines are close together at the _____.
{Lines Poles Centre}
- 4. Magnetic force between two magnets gets weaker with increase in _____.
between them. {Distance Attraction Metals}
- 5. Maglev Trains use magnets to reduce _____ between the train and the tracks.
{Speed Friction Gravity}
- 6. A rectangle shaped magnet is called a _____ magnet.
{U-shaped Bar Ring}
- 7. _____ is a natural magnet.
{Lodestone Sandstone Limestone}
- 8. _____ the strongest magnet in the universe.
{Electromagnets Magnetars Granite}

Q11. Label the poles of the magnet below:



Q12. Amira and Faisal carried out a fair test to find out how many paperclips a magnet could hold. They wanted to know which magnet was the strongest. Use their table of results to answer the questions below:

a. Which magnet attracted the most paperclips?







b. Which magnet attracted the least paperclips?

c. Which magnet was the strongest?

d. Which magnet was the weakest?

e. How many paperclips did the ring magnet attract?

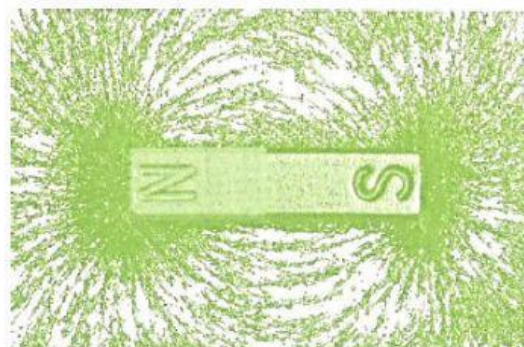
f. How many paperclips did the circular magnet attract?

Type of magnet		Number of paperclips
circular		6
cylinder		18
horseshoe		2
bar		8
ring		10
U-shaped		3

Q13. Observe the magnet and its magnetic force field and answer the questions given:

a. Where is the force field the strongest?

b. Where is the force field the weakest?



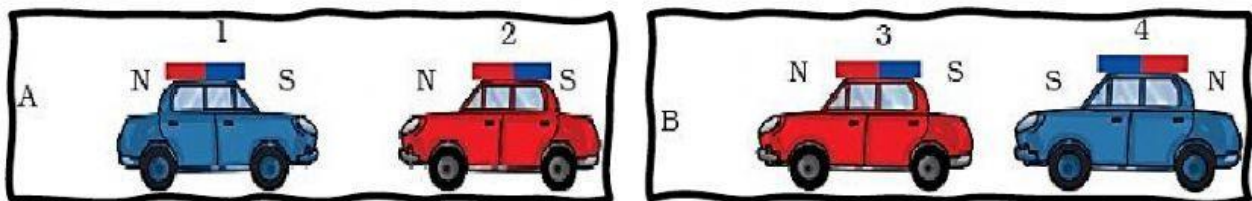
Q14. Sort the objects into magnetic materials, non-magnetic materials or both:



Magnetic Materials	Non-Magnetic Materials	Magnetic & Non-magnetic

Q15. Observe the pictures A and B.

Which of the following statements is correct for the below given pictures?



- ☐ In A, cars 1 and 2 will come closer and in B, cars 3 and 4 will come closer.
- ☐ In A, cars 1 and 2 will move away from each other and in B, cars 3 and 4 will move away.
- ☐ In A, cars 1 and 2 will move away and in B, 3 and 4 will come closer to each other.
- ☐ In A, cars 1 and 2 will come closer and in B, 3 and 4 will move away from each other.

Q16. Which of the following ways will NOT cause a magnet to lose its magnetism?

- ☐ Heating it strongly over a flame
- ☐ Dropping it on the floor repeatedly
- ☐ Coating it with a layer of oil
- ☐ Hitting it with a hammer repeatedly

Q17. How is a compass useful to us?

- | | |
|--|--|
| <input type="checkbox"/> In finding the altitude of a place. | <input type="checkbox"/> In finding only the north of a place. |
| <input type="checkbox"/> In finding all the directions of a place. | <input type="checkbox"/> In making artificial magnets. |

Q18. In which direction does a magnet always point when suspended freely?

- ☐ South-West ☐ North-South ☐ East-West ☐ West-South

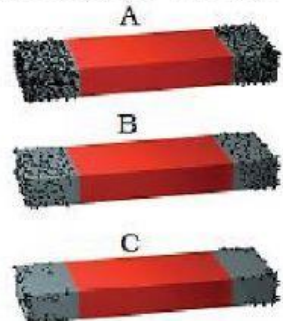
Q19. A bar magnet is immersed in a heap of iron filings and pulled out. The amount of iron filings clinging to the:

- ☐ North pole is almost equal to the south pole.
☐ North pole is much more than the south pole.
☐ North pole is much less than the south pole.
☐ Magnet will be same all along its length.



Q20. Three magnets A, B and C were dipped one by one in a heap of iron filings. The picture shows the amount of iron filings sticking to them. The strength of these magnets will be:

- ☐ A is the strongest, B is strong, and C is the weakest.
☐ A is the weakest; B is strong, and C is the strongest.
☐ B is the strongest, C is strong, and A is the weakest.
☐ All magnets are equally strong.



Q21. Where does a compass work?

- ☐ Only in oceans or seas.
☐ Only on land, where the earth's magnetic field is strong.
☐ Only on high mountains.
☐ At all the places within the earth's magnetic field