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*

a 

[Attract / Repel]

b 

[Attract / Repel]

c 

[Attract / Repel]

d 

[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?

_____

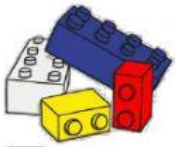
a. Which is the weakest magnet?

_____

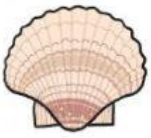
Magnet	Distance when attracted paperclip
Medium sized horseshoe magnet	6cm
Large bar magnet	10cm
Fridge magnet	2cm

Q7. Tick (✓) the magnetic objects:

☐ Steel can



☐ Blocks



☐ Shell

☐ Cobalt ring

☐ Glass

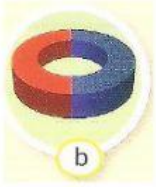
☐ Nickel keyring

☐ Sponge

☐ Steel spanner

Q8. Name each type of magnet below:

_____



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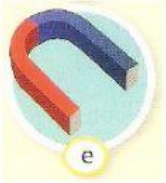


_____

_____

Circular magnet	U-shaped magnet
Cylindrical magnet	Horseshoe magnet
Bar 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}

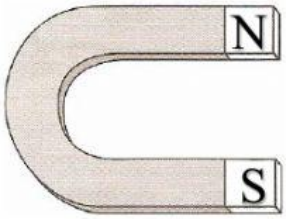
5. Maglev Trains use magnets to reduce_____ between the train and the tracks.
{Speed Friction Gravity}

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:

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

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? _____

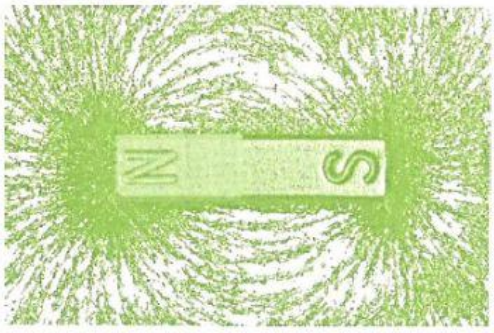
Q13. Observe the magnet and its magnetic force field and answer the questions given:

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:


silver ring


paperclip


tin foil


rubber


copper wire


can of food


aluminium can


hammer

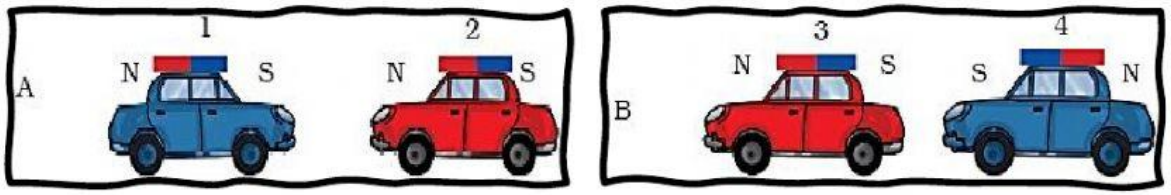

nickel coin


spoon


iron screw

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

☐ Coating it with a layer of oil

☐ Dropping it on the floor repeatedly

☐ Hitting it with a hammer repeatedly

Q17. How is a compass useful to us?

- ☐ In finding the altitude of a place.
- ☐ In finding only the north of a place.
- ☐ In finding all the directions of a place.
- ☐ In making artificial magnets.

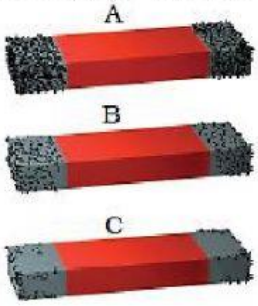
Q18. In which direction does a magnet always point when suspended freely?

- ☐ 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