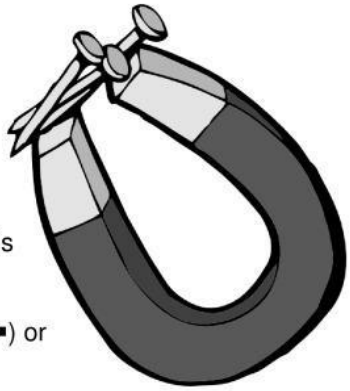
Start objects moving … without touch!

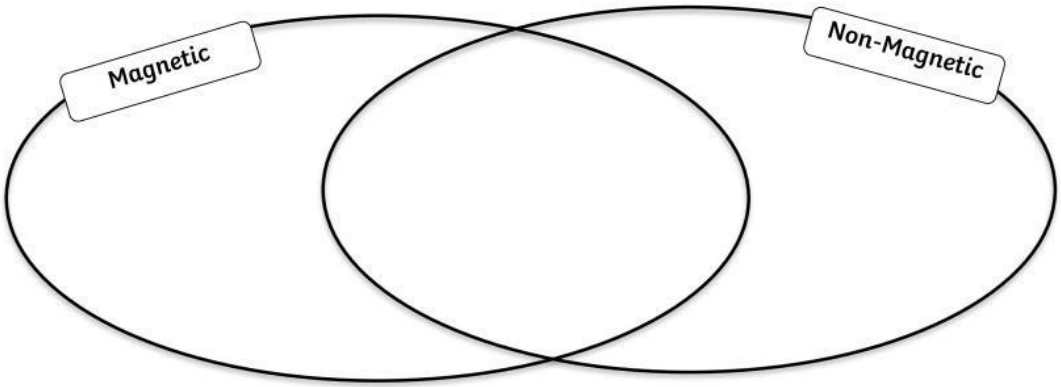


Magnetism is a non-contact force. That means that a magnet does not have to touch something to make it move. There are important rules, for example:

• Not all materials are attracted to magnets, only magnetic materials such as iron, steel, and nickel.

• All magnets have a north and a south pole. Poles can attract (➡⬅) or repel (⬅➡) each other - Like poles repel; unlike poles attract.

1. Sort the objects below into the correct category of the Venn Diagram (write the letters).



2. Think about the materials from which the objects (point 1) are made.
   a. What materials are the magnetic objects made of?

   _____

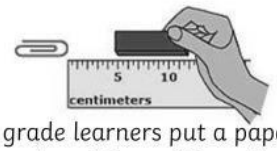
   b. What materials are the non-magnetic objects made of?

   _____

   _____

   c. Do magnets pull (attract) all metals? Tick (✓) the correct answer.

   ☐ Yes ☐ No

3. 

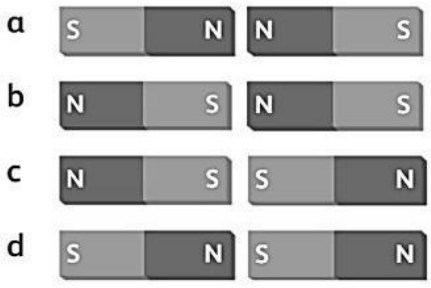
2nd grade learners put a paper clip at the end of a ruler at 0 cm. Then they put a magnet at the other end of the ruler. Next, they slowly moved the magnet down the ruler until it attracted the paper clip. They read the measurement on the ruler and recorded their results in the table below. They tested different magnets and recorded their results.

Type of magnet	Distance from the magnet (cm)
Circular	4
Cylindrical	2
Horseshoe	7
Bar	2
Ring	5
U-shaped	3

Which magnet is the strongest? _____

4. Zak and his class had fun with magnets. They investigated when poles attract – pull towards each other and when poles repel – push each other away.

   a. Tick (✓) the correct word for each pair.



	Attract	Repel
a		
b		
c		
d		

   b. Explain how an object can be moved without touching it.

   _____

   c. Describe the rules of the poles. Circle the correct bolded words.

Same poles **attract** / **repel** each other. North and **north** / **south**, or south and **north** / **south**.

Opposite poles **attract** / **repel** each other. North and **north** / **south**, or south and **north** / **south**.

CONCLUSION. Circle the correct bolded words.

Magnets **do** / **do not** attract all materials, they can pull only **magnetic** / **non-magnetic** metals.

I can determine the north and south pole of a magnet, by putting an unknown magnet end next to the north pole of another magnet. If they attract, the unknown magnet end has the **north** / **south** pole.