
<h2>Mars, here we come ...</h2>		
NAME: Kilian Truyaert	NAME: Jana Vanluchene	
NAME: Jentl Snauwaert	NAME: Aude Spiessens	
SCHOOL / CLASS: 3WETc	MARKS: /...	
EXPERIMENT: magnet on a balance		

RESEARCH QUESTION

- Can you influence the weight of a magnet with another magnet?
- Who has the strongest magnet, De Bron or Liceo Linguistico Statale?

HYPOTHESIS (indicate the correct answer)

- The weight of a magnet **does change** / *doesn't change*.if you come near with an other magnet.
- The change in weight is **dependent** / *independent* from the way you hold the other magnet.

MATERIAL

- Kitchen balance
- Two magnets
- Ruler.

OPERATION OF THE EXPERIMENT

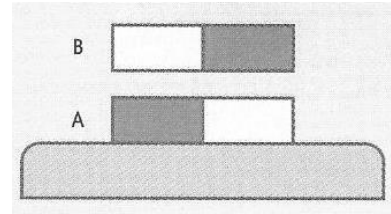
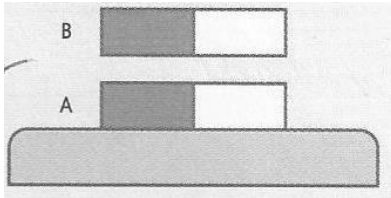
- Put one magnet on the kitchen balance to weigh.
- Approach with another magnet and look how the weight changes.
- Repeat this while holding the magnet in the other direction.

THE RESULTS:

- ❖ doing the experiment
 - Read the mass of the magnet and calculate the weight.

Mars, here we come ...

- Come near with the other magnet until you see another “mass” on the balance. From then on, come closer cm by cm.
- Note the “mass” by cm and calculate the weight. Make sure you measure to the millimeter!
- Change the magnetic poles and repeat.



❖ Complete the tables

SITUATION 1: there is *attraction* / *repulsion* by the magnets

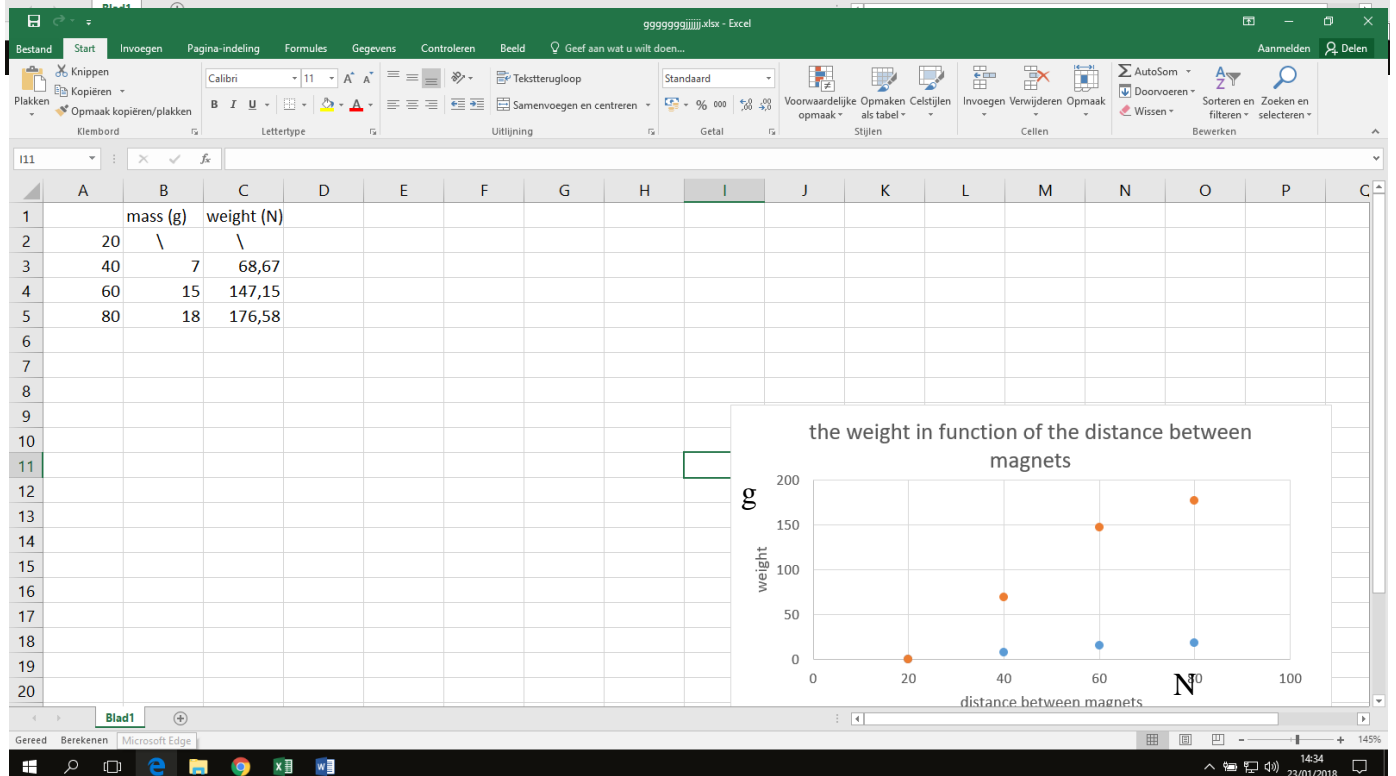
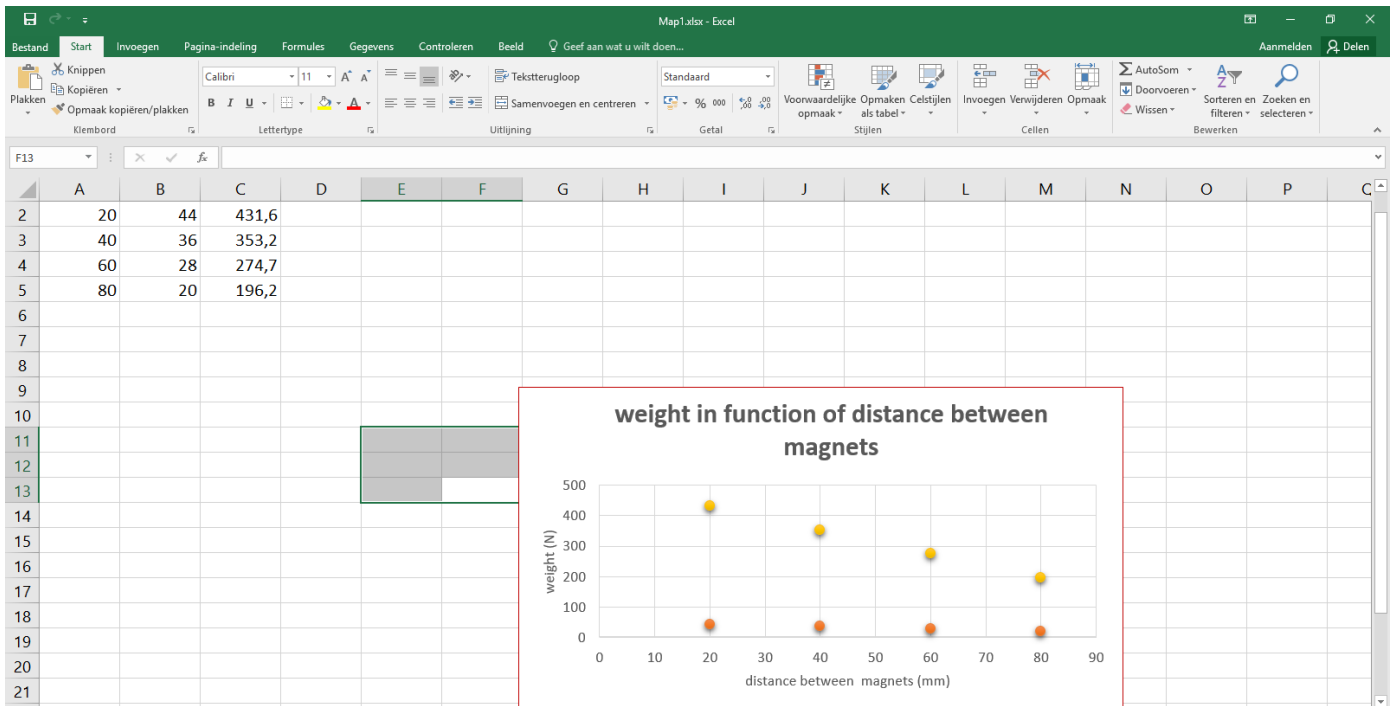
Distance between magnets (mm)	“mass” (g)	weight (N)
80 mm	20 g	196,2 N
60 mm	28 g	274,7 N
40 mm	36 g	353,2 N
20 mm	44 g	431,6 N

SITUATION 2: there is *attraction* / *repulsion* by the magnets

Distance between magnets (mm)	“mass” (g)	weight (N)
80 mm	18 g	176,58 N
60 mm	15 g	147,15 N
40 mm	7 g	68,67 N
20 mm	/	/

Mars, here we come ...

Make graphs (excel) of the weight (F_g) in function of the distance between the magnets. Make two different graphs, one for each situation. Copy the graph in this document.



Mars, here we come ...

CONCLUSIONS

- If the magnets attract each other, the weight of the magnet below will
.....become less big.....
- If the magnets repulse each other, the weight of the magnet below will
.....rise.....

REFLECTION

- How do you explain the conclusions?

If you bring the negative and the positive pole to each other, one will attract the other and de weight will decrease, because the magnet will lift the other on. If you bring the same poles to each other than the weight will increase, because the same poles attract each other and than there is more pressure on the balans.

Is the change in weight the same either by attraction or repulsion?

No.

Compare your results with the results in the other school. Which school has the strongest magnets?

.....
.....