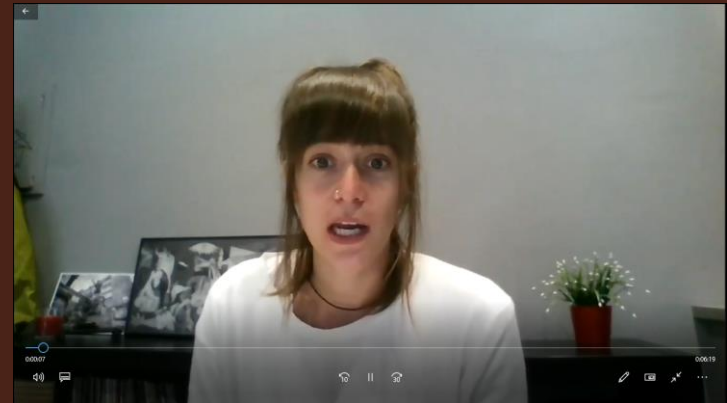


# WATCH THE FOLLOWING VIDEO TO UNDERSTAND THE LESSON:

<https://drive.google.com/file/d/IM0NkFY3kxR2F5IwRMqJ66O8YNeTRED-0/view?usp=sharing>



# UNIT 4: FORCES



FORCES MAKE THINGS MOVE OR STOP.



# WE CAN'T SEE FORCES BUT WE CAN FEEL THEIR EFFECT.

Forces make things:

- **move** or **stop**
- change **shape**
- **break**
- **fall** to the ground
- stay **still**
- **float**

# FORCES CAN BE...

PUSH OR PULL



CONTACT AND NON-CONTACT



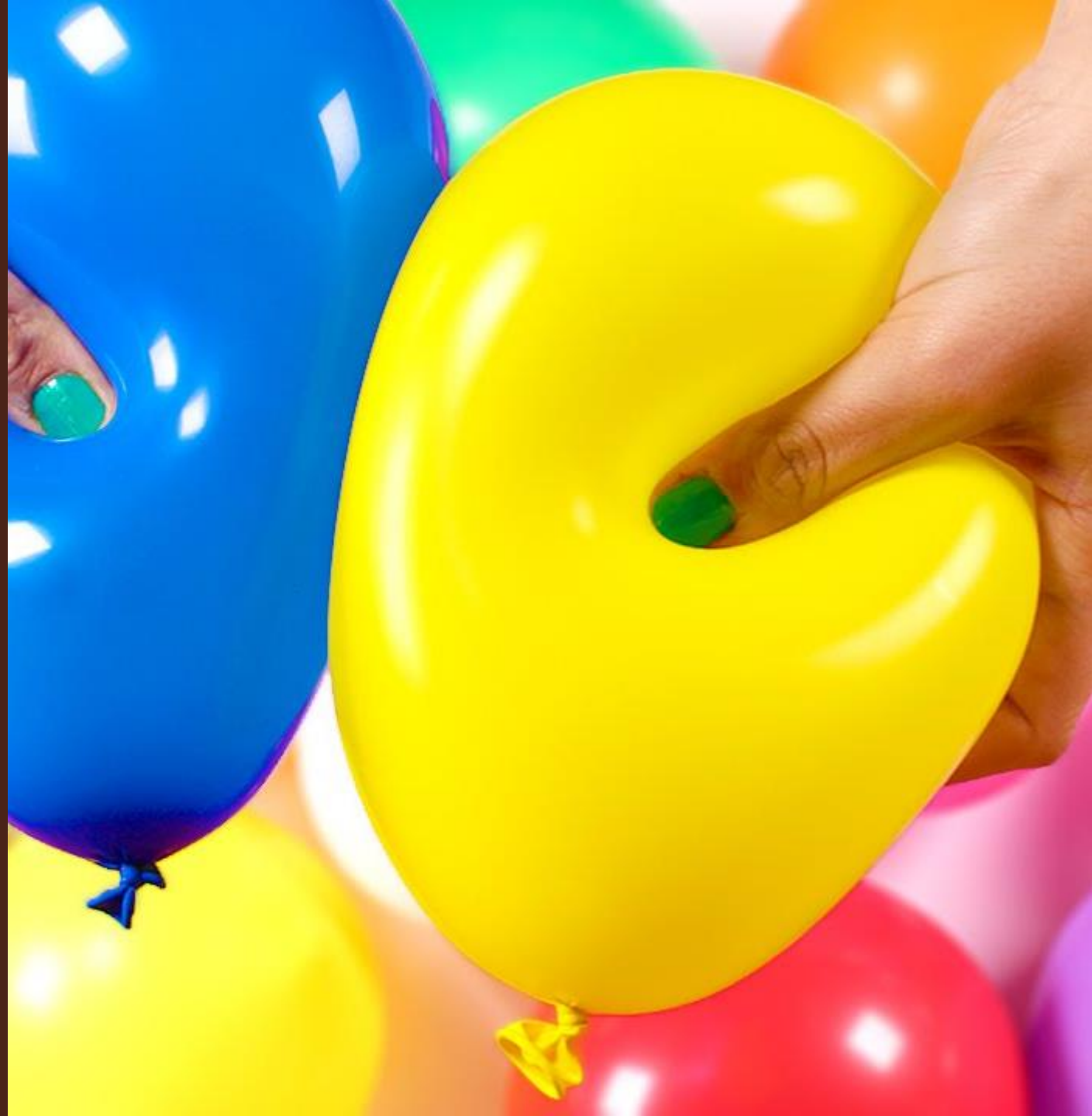
BALANCED OR UNBALANCED



FORCES CAN **CHANGE**

**THE SHAPE** OF AN

OBJECT.



FORCES CAN  
**BREAK** AN  
OBJECT.



THIS PLAYER IS USING HIS

BODY TO **MOVE** THE

BALL



THIS MACHINE IS APPLYING  
A FORCE. AND IT IS  
CHANGING THE  
SHAPE OF THE OBJECT



THIS OBJECT IS

# FLOATING

IN WATER



THIS PERSON IS

FALLING



# MAGNETS

- Magnets have a force called MAGNETISM.
- MAGNETISM move an object without touching it.
- Most magnets are man-made. They are made from iron and steel.



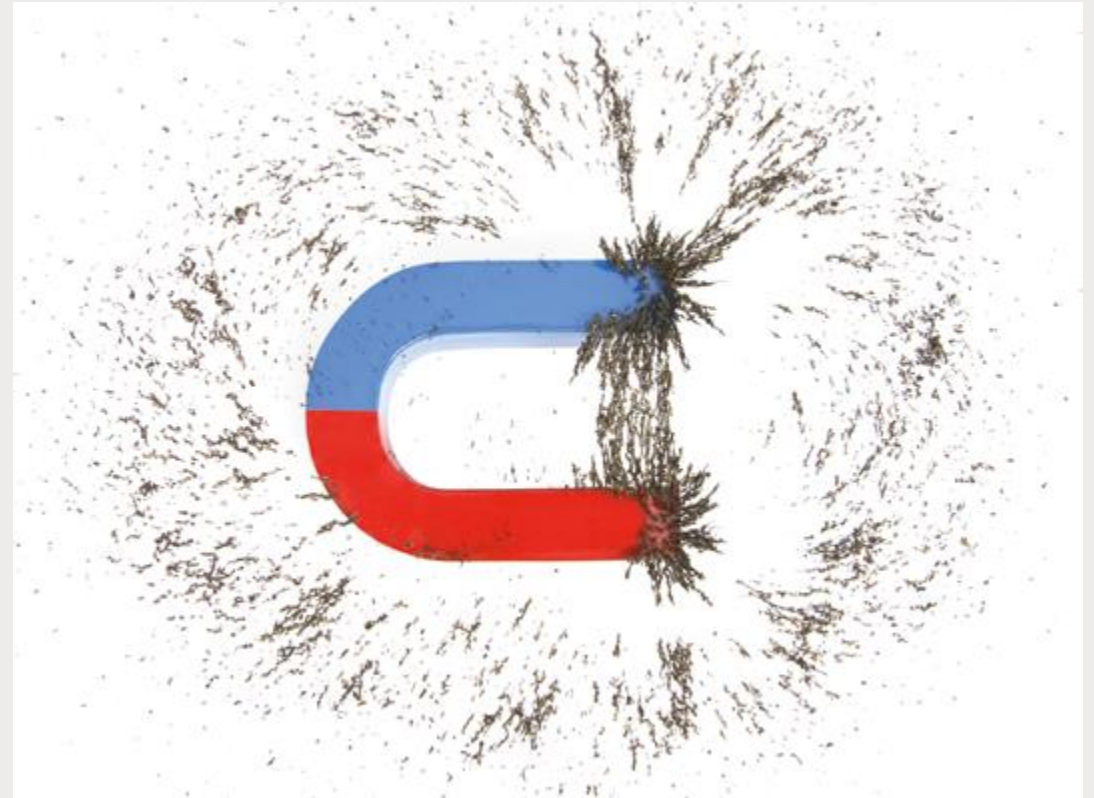
# DO YOU KNOW HOW

## MAGNETS WORK?

Magnets create a **magnetic field** around them.

This force attracts objects made of **iron and steel**.

This is a photo of a magnet and **iron filings**. The iron filings show us where the magnetic field is.



# TASK 1 · EXPERIMENT TIME!

## LET'S USE A MAGNET!

1. Take a magnet of your fridge.
2. Draw a table with two columns: magnetic and non-magnetic.
3. Joint your magnet with different objects around you and check if they are magnetic or non-magnetic.
4. Write or draw them in the table.

MAGNETIC	NON-MAGNETIC



This is a plastic light. This light is a **non-magnetic** object.



This is an iron fireplace. It is a **magnetic** object.



This is a wood table. This table is a **non-magnetic** object.



This is a steel kitchen. It is a **magnetic** object.

Magnets don't attract objects made up  
of wood, wool or plastic.



WOOD



WOOL



PLASTIC

Magnets attract objects made up of  
iron and steel.



IRON: *FERRO*



STEEL: *ACER*

# MAGNETISM

- Magnetism is a non-contact force because a magnet moves an object without touching it.
- It is a pull and push force.

# VOCABULARY

**Contact force** = força de contacte

**Non-contact force** = força de no contacte

**Push** = empènyer

**Pull** = estirar

**Steel** = acer

**Attract** = atraure

**Balanced force** = força equilibrada

**Unbalanced force** = força no equilibrada

**Magnetism** = magnetisme

**Magnetic field** = camp magnètic

**Iron** = ferro

Point the objects that are attracted to a magnet.





## TASK 2: FILL THE GAPS.

Magnets have a force called magnetism. This can be a push or a \_\_\_\_\_ force. Magnetism is a \_\_\_\_\_ force because a magnet \_\_\_\_\_ an object \_\_\_\_\_ touching it. Most magnets are made from iron and \_\_\_\_\_. Magnets create a \_\_\_\_\_ around them. We cannot see these forces but they \_\_\_\_\_ objects made of iron and steel.

without  
non-contact  
moves  
pull  
steel  
Magnetic field  
attract

# TASK

Task 1: **EXPERIMENT TIME!** Create a table on a piece of paper and do the experiment with a Fridge magnet. Fill the table with some objects (magnetic or non-magnetic) that you discover.

Task 2: Copy the text and write the answers of the gaps filling on a piece of paper.

Take a photo of your work and send it to us:

- 4tA – [fcps.science.department@gmail.com](mailto:fcps.science.department@gmail.com)
- 4thB / 4thC – [fcps.elisabeth.suarez@stjosep.com](mailto:fcps.elisabeth.suarez@stjosep.com)

THANKS! 😊

## SCIENCE DEPARTMENT

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Maig 2020

\*Images found through Google website for classroom purposes and Science Book.