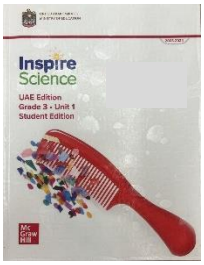
Unit 1 – Module 1 – Lesson 1: Position and Motion

Grade 3 | Al Ghaith School C1 | Ms. Hala Mohammed

Key Words You Must Know

Position الموقع | Distance مسافة | Direction اتجاه

Motion الحركة | Speed السرعة



Position is the place where something is.

You can use words like on, in, under, behind, etc. to describe position.

Where is the cat?



The cat is in the box



The cat is under the box



The cat is behind the box

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- When you describe position, you must use distance المسافة and direction الاتجاه.

Distance المسافة



- Distance: is the space **between 2** things or places.
- Millimeters, centimeters, meters and kilometers are **units** used to measure distance وحدات قياس المسافة.

Abu Dhabi — Dubai

1. Kilometers
2. Meters
3. Centimeters
4. Millimeter



You want to measure the distance between Abu Dhabi and Dubai. What unit should you use?



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Tools used to measure distance



Ruler



Meterstick



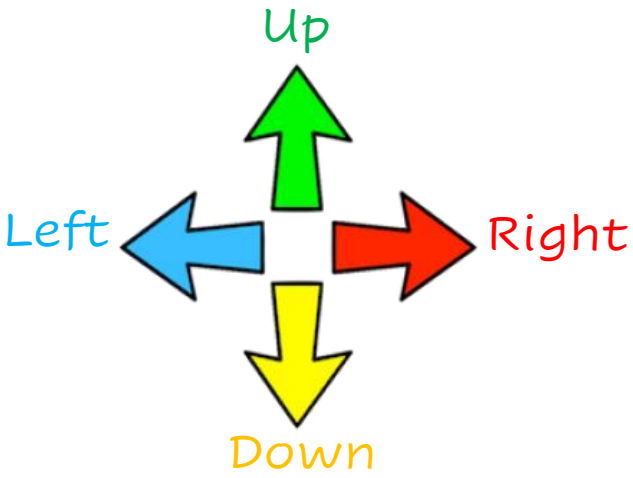
Measuring tape

Direction الاتجاه

- Direction اتـجـاه: tells you where something is, or which way a line points from one place to another.
- You can use words like north, east, west, south, right, left, up, down to describe direction.

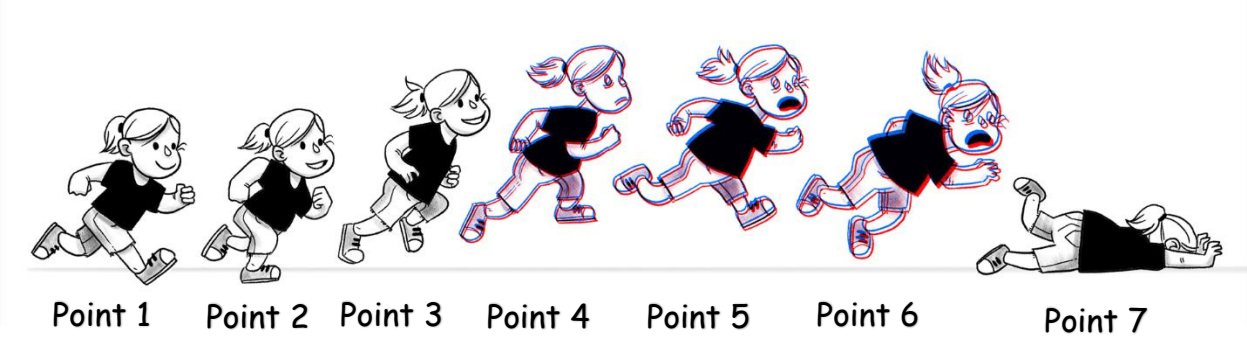
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Motion الحركة

- Motion الحركة: is when the position الموقع changes.



You can tell that the girl is moving because her position is changing.

يمكنك معرفة أن الفتاة تتحرك لأن موقعها يتغيّر.

Different Types of Motion

الأنواع المختلفة للحركة

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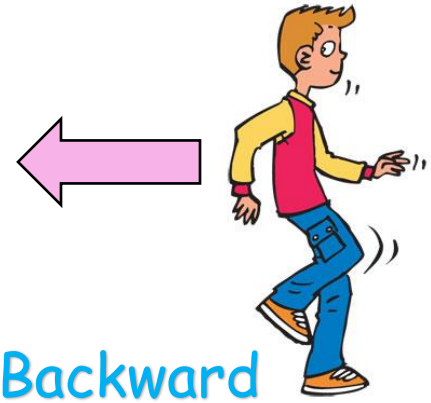
Round (Circular)

دائرية



Back and forth

للأمام والخلف



Backward

للوراء

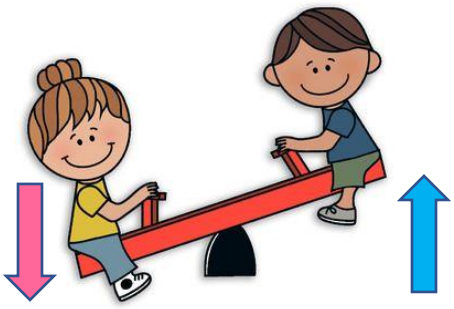


Front (Straight)

للأمام / مستقيم



Zigzag



Up and down

فوق وتحت

Speed السرعة

- Speed: how fast or slow something moves.



Abdulla and Ahmed raced at school today. Abdulla finished the race in 9 seconds. Ahmed finished the race in 7 seconds. Who was the winner?



Answer: Ahmed spent less time, so Ahmed won the race.

Please check the files uploaded on LMS for extra practice

Good Luck!



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Key Words You Must Know

Force قوة Friction احتكاك

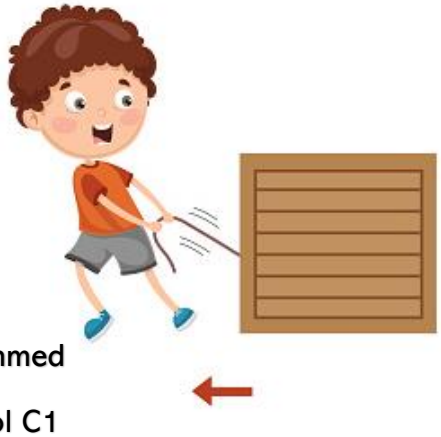
Balanced forces قوى متعادلة Unbalanced forces قوى غير متعادلة

- Things don't move by themselves. You need a force to make them move, or to stop them from moving.
- Force: is a push or pull سحب أو دفع القوة هي
- Other types of forces أنواع أخرى: Friction احتكاك and gravity الجاذبية



When you push something, you move it away from you

الدفع يجعل الأشياء تبتعد عنك

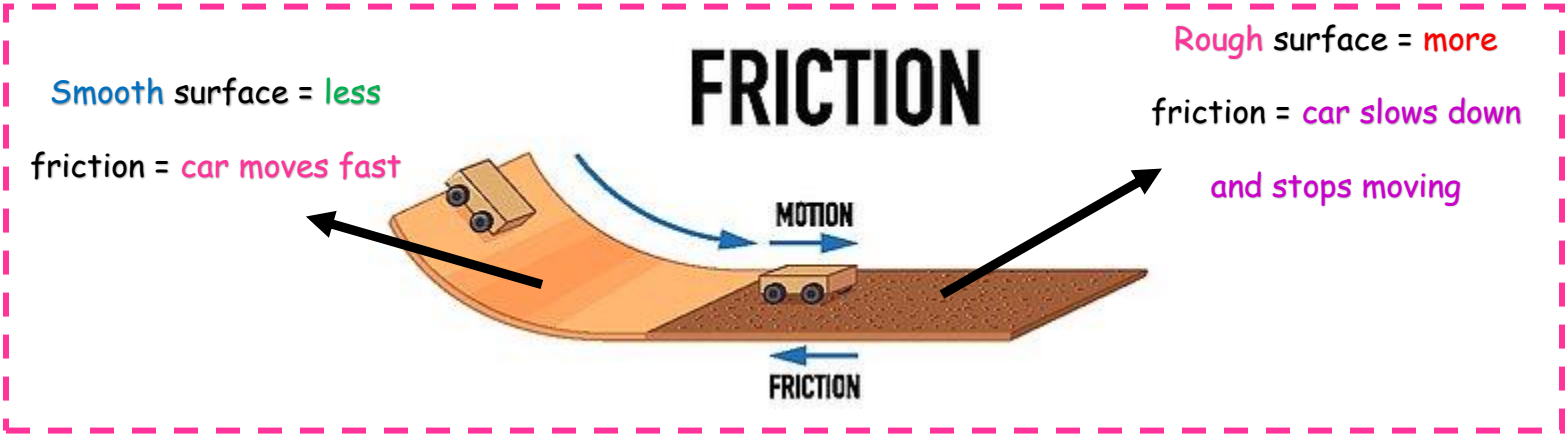


When you pull something, you move it towards you

السحب يجعل الأشياء تقترب منك

Friction الاحتكاك

- Friction: It is a force that makes moving objects slow down and stop moving قوة تجعل الجسم المتحرك يبطئ ثم يتوقف
- It always acts against the direction of motion اتجاه قوة الاحتكاك دائما عكس اتجاه الحركة



- Smooth surface = less friction الأسطح الناعمة = احتكاك أقل
- Rough surface = more friction الأسطح الخشنة = احتكاك أكثر

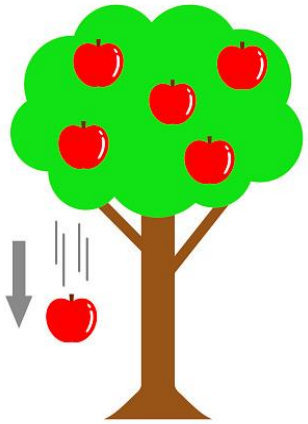


- Ice is very smooth ناعم, there is little friction on ice so you can skate very fast, and sometimes you can even fall. It is also **hard** to stop because there's little friction.
- Grass is a rough surface سطح خشن, there is more friction on grass so you skate slowly. It is **easy** to stop skating on grass.

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Gravity الجاذبية

- Gravity: It is a force that pulls things down.
- We don't float in air because gravity pulls us down.

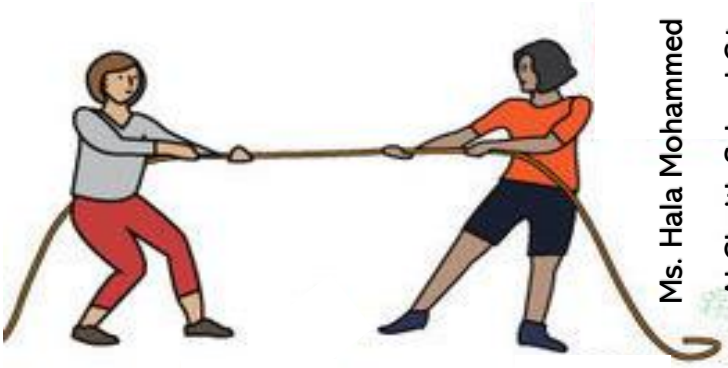




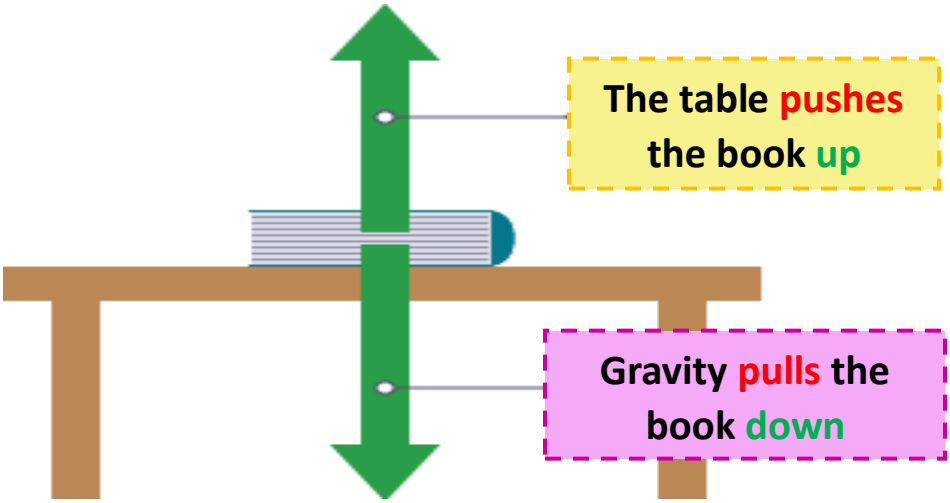
Why do astronauts float in space?



- Balanced forces القوى المتعادلة: are equal forces متساوية that act on an object.
- Because they are equal, they cancel each other out and don't change motion.



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Both forces are balanced (equal), so the book is not moving.

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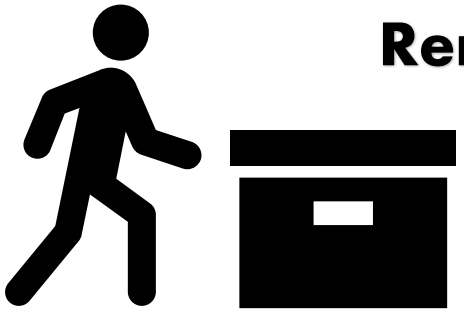
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- Unbalanced forces قوى غير متعادلة: are forces that are not equal غير متساوية



To which direction will the rope move? 🤔

Remember friction? 😉



Friction pulls the box **to the left**

The man pushes the box **to the right**

Balanced or Unbalanced?

Will the box move?

To which direction?



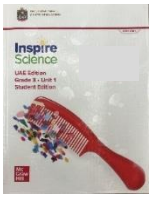
The man pushes the box **to the left**

Friction pulls the box **to the right**

Balanced or Unbalanced?

Will the box move?

To which direction?



Unit 1 – Module 2 – Lesson 1: Electricity and Designing Solutions

Grade 3 Al Ghaith School C1 Ms. Hala Mohammed

Keywords You Must Know

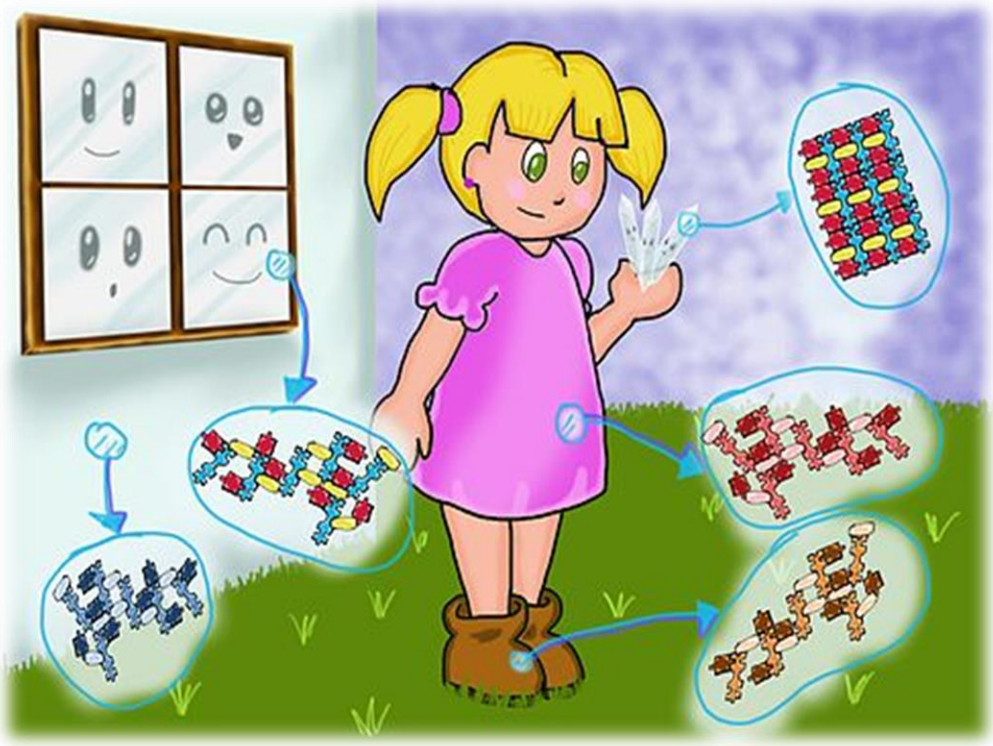
Electrical charge شحنة كهربائية

Attract ينجذب

Repel يتنافر

Static electricity الكهرباء الساكنة

- **Electricity** is all around us. You use electricity to light up your room, watch TV, charge phones and tablets and much more!
- Everything is made up of **very tiny particles** that you cannot see with your eyes. كل شيء مصنوع من جزيئات صغيرة جدا لا نستطيع رؤيتها بالعين



If you can zoom in into things, you will see they are **made up of very small particles**!

إذا كان باستطاعتك تكبير الأشياء، سترى أنها مصنوعة من جزيئات صغيرة جدا

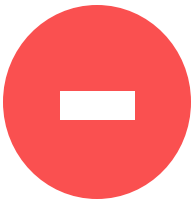
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- Particles can have: هذه الجزيئات يمكن أن يكون لديها:



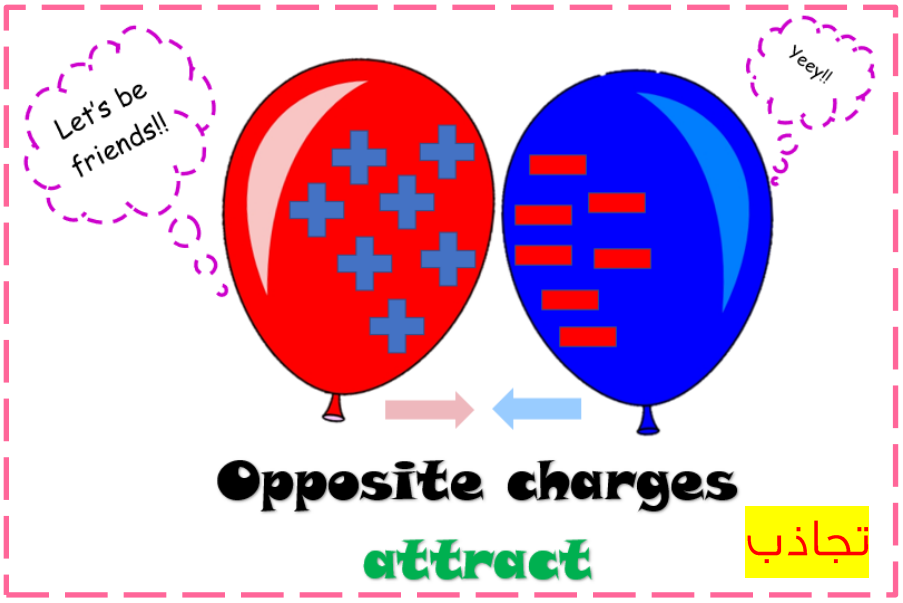
or



Positive charge شحنة موجبة	Negative charge شحنة سالبة

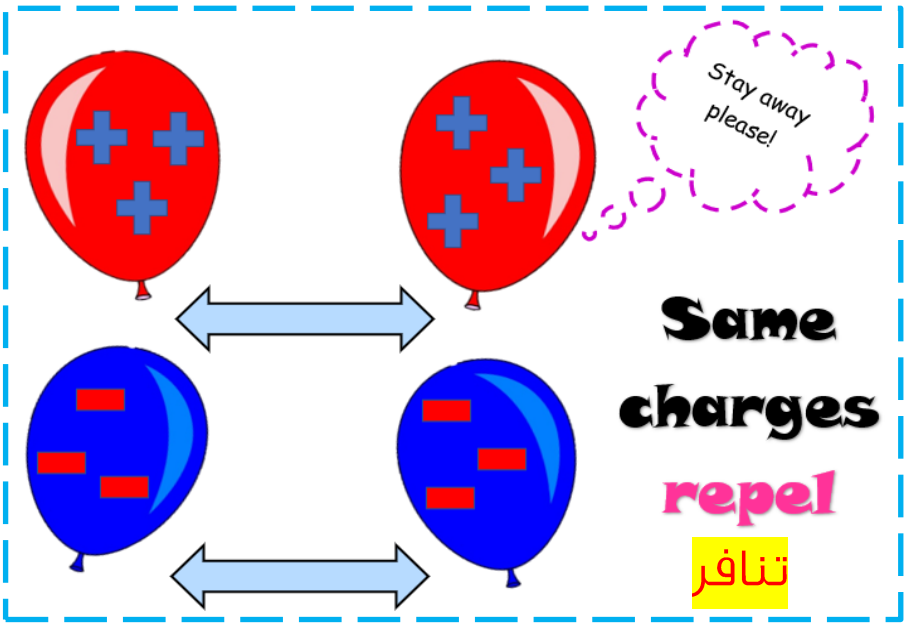
- What happens if we put charges together?





Things that attract pull at each other

البالون الأحمر الموجب ينجذب للبالون الأزرق السالب ويسحبه باتجاهه



Things that repel push each other away

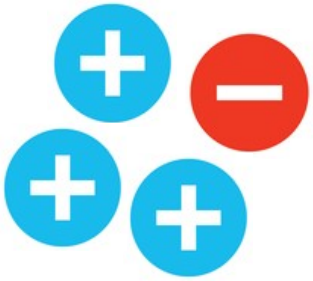
البالون الأحمر الموجب يتنافر مع البالون الأحمر الموجب ويدفعه بعيدا

البالون الأزرق السالب يتنافر مع البالون الأزرق السالب ويدفعه بعيدا

- Electrical charge: it is a property that makes things feel attractive or repulsive toward each other

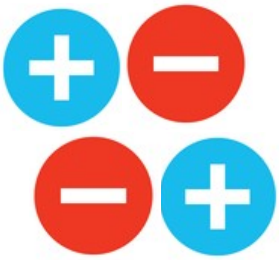
  الشحنة الكهربائية: هي خاصية تجعل الأشياء تنجذب أو تتنافر عن بعضها البعض.

- Charges can be balanced or unbalanced.



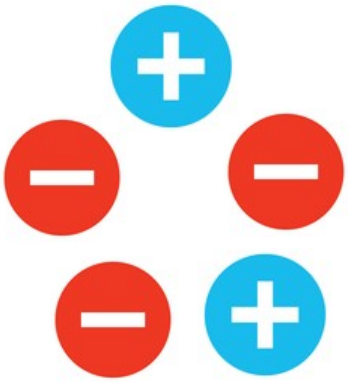
Unbalanced

Positive > Negative



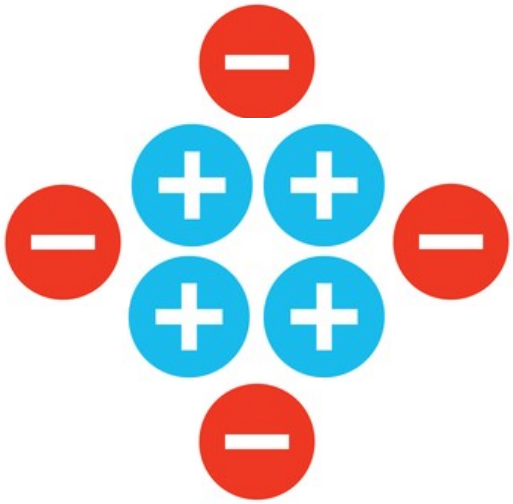
Balanced

Positive = Negative



Unbalanced

Positive < Negative



What do you think?



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Static Electricity الكهرباء الساكنة

- Static electricity: Too many unequal charges.






Why does that happen? 🤔

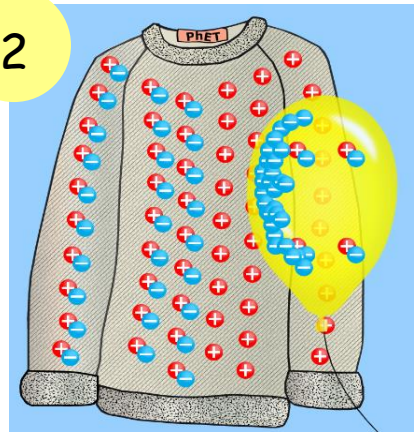
1



The sweater and the balloon have balanced charges

البالون والسترة لديهم شحنات متعادلة

2

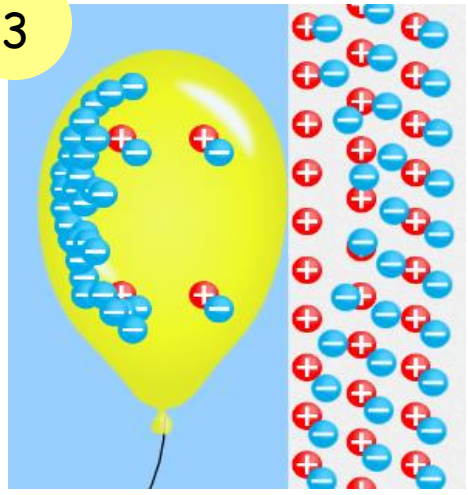


We rub the balloon with the sweater. The negative charges move from the sweater to the balloon. Now the balloon has too many negative charges (unbalanced)

عندما يحتك البالون مع السترة، تنتقل الشحنات السالبة من السترة إلى البالون. لدى البالون الآن الكثير من الشحنات السالبة غير المتعادلة

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3



We put the balloon next to the wall. The negative charges on the wall move away because they repel with the negative charges in the balloon.

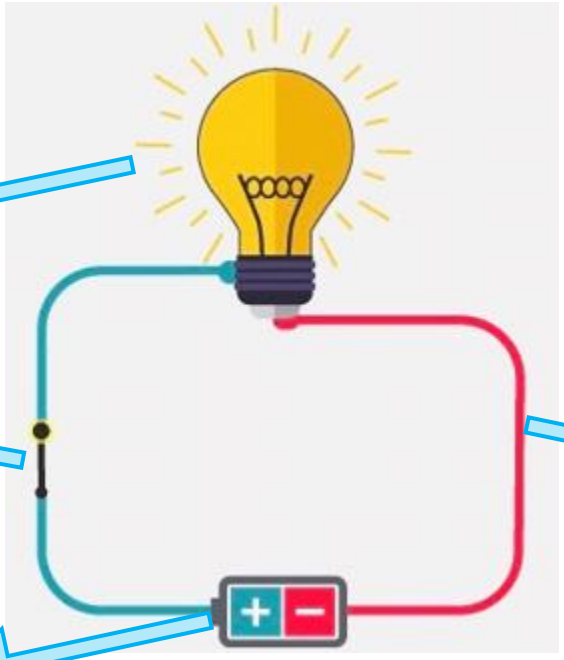
The balloon sticks to the wall because the (too many) negative charges in the balloon and the positive charges in the wall attract

عندما نضع البالون بجانب الجدار، الشحنات السالبة داخل البالون تنجذب إلى الشحنات الموجبة داخل الجدار وهذا يجعل البالون يلتصق بالجدار

Electric Circuit الدائرة الكهربائية

- A circuit has many parts that work together to make something work.

الدائرة الكهربائية لديها عدة عناصر تعمل معا لجعل أي جهاز كهربائي يعمل



Load/ Device

Any machine: Toys, fridge, laptop, TV, lights, remote control, etc.

On/Off switch

Battery or electric outlet

Wire

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- An electric current: is the movement of charges from the battery (or an electric outlet) and through the wire, to make a device work.

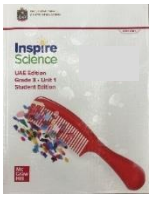
التيار الكهربائي هو حركة الشحنات الكهربائية في الأسلاك لتشغيل الجهاز الكهربائي

Please check the files uploaded on LMS for extra practice

Good Luck!

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Unit 1 – Module 2 – Lesson 2: Magnetism and Designing Solutions

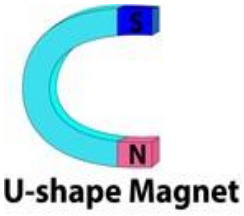
Grade 3 Al Ghaith School C1 Ms. Hala Mohammed

Keywords You Must Know

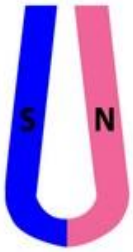
Magnet مغناطيس Magnetism المغناطيسية

Pole قُطب Magnetic field المجال المغناطيسي

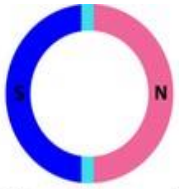
- A Magnet attracts metal things, like nickel, iron, cobalt and steel



U-shape Magnet

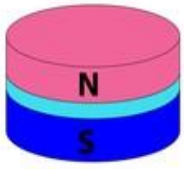


Horseshoe Magnet



Ring Magnet

- Magnets come in different sizes and shapes



Circular Magnet

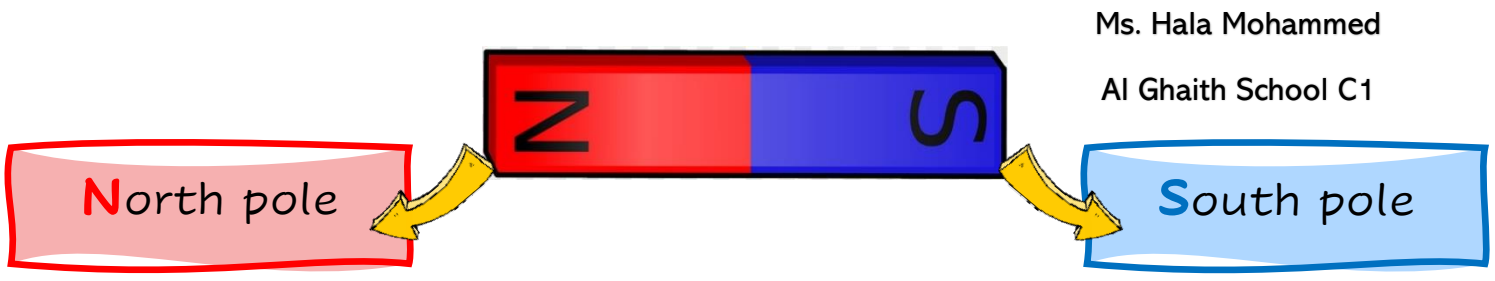


Bar Magnet

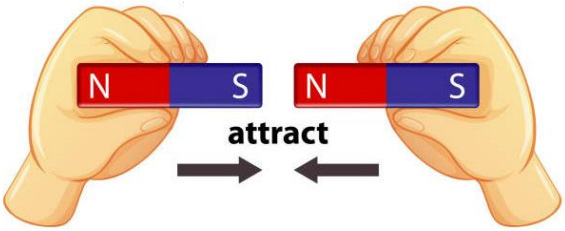
ملاحظة: غير مطلوب حفظ أشكال المغناطيس المختلفة

- Magnetism المغناطيسية: is the force magnets have when they attract or repel objects

- Magnets have 2 poles:

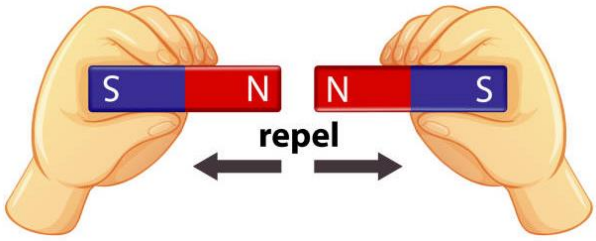


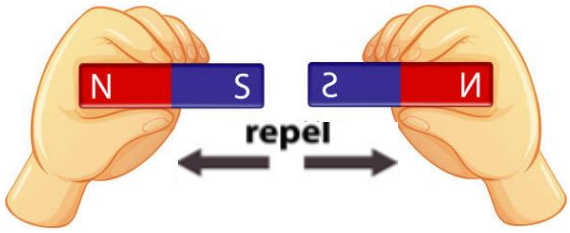
- What happens when you put 2 magnets together? 🤔



Opposite poles attract each other

They pull at each other





Same poles repel each other

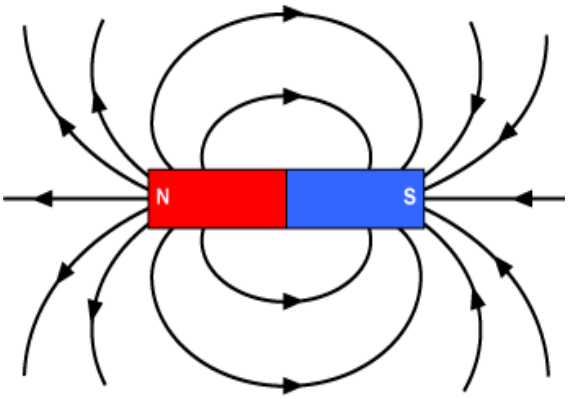
They push each other away

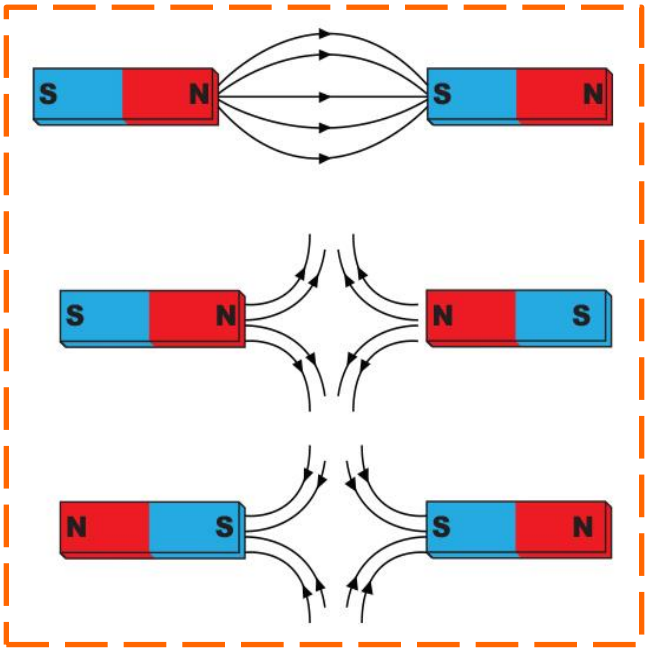
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- Magnetic field: It is an area around magnets where they attract or repel

المجال المغناطيسي هو منطقة حول المغناطيس يجذب عندها الأشياء





Attract

Repel

Repel

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Can you see magnetic field?



What do magnets do?



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- **Remember**: A Magnet attracts metal things, like nickel, iron, cobalt and steel
- Magnets don't attract things like plastic, paper, fabric, etc.

Item	✓ or x
Pencil 	
Elastic band 	
Coin 	
Crayon 	
Paper clip 	
Piece of paper 	
Scissors 	
Building block 	
Metal spoon 	
Marker 	

Give it a try!

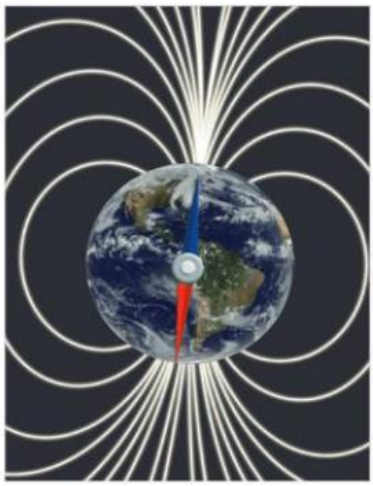
Grab a magnet

Search around your house

Find magnetic and non-magnetic objects

Our Planet Earth

- Earth has so much iron حديد deep inside it
- This iron makes a magnetic field مجال مغناطيسي
- This makes the Earth a HUGE magnet



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- Have you ever seen a compass بوصلة?



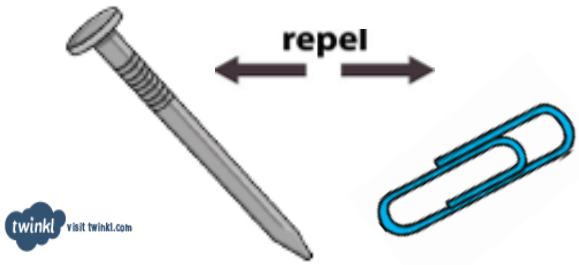
- A compass helps you find direction
- The needle / arrow inside is a magnet that moves around
- The red arrow always points North الشمال السهم الأحمر دائما يشير إلى اتجاه

Why? 🤔

Because the red arrow is a south pole. It is attracted to the Earth's north pole.

لأن السهم الأحمر داخل البوصلة هو قطب جنوبي، وهو دائما ينجذب إلى القطب الشمالي للمغناطيس الأرضي الكبير

Electromagnets



This iron nail is **not a magnet**. It **cannot** attract other metal things

هذا المسمار ليس مغناطيس ولا يستطيع أن يجذب أي شيء آخر



But how does this nail attract paperclips?!



ولكن كيف باستطاعة هذا المسمار أن يجذب كل هذه الدبابيس؟!

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This is an electromagnet

- The battery provides electricity البطارية توفر الكهرباء
- The electricity creates a magnetic field when the wire is coiled around the iron nail. The iron nail becomes a magnet!

  الكهرباء تصنع مجال مغناطيسي عندما يتم لـف السلك حول المسمار. هذا يُحوّل المسمار إلى مغناطيس!

- You can make electromagnets **stronger** by:
  1. Increasing the number of coils زيادة عدد لفات السلك
  2. Adding more batteries زيادة عدد البطاريات
- **Electromagnets** are used in doorbells, speakers and much more!

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Unit 3 – Module 1 – Lesson 1: Survival of Organisms

Grade 3 Al Ghaith School C1 Ms. Hala Mohammed

Keywords You Must Know

Ecosystem النظام البيئي

Resource مَورد

Competition منافسة

Plant Needs



- Plants are living things
- What do plants eat for food? 🤔

Plants make their own food!

- Plants have needs to make their food and to stay alive
- Plants get their needs from their environment

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النباتات تحصل على احتياجاتها من البيئة

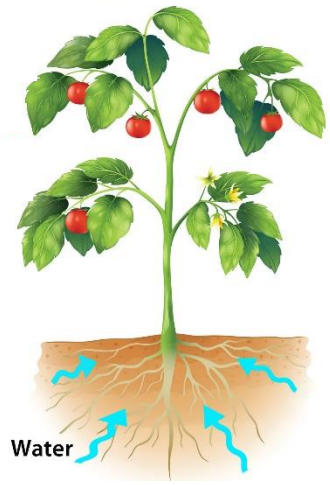
1. Water:

- Plants take in water through their roots الجذور. Water travels up through the stem and to the leaves
- Why do plants need water? 🤔

a. To stand up للبقاء في وضعية وقوف

b. To keep it from wilting لمنعها من الجفاف

c. To make food لمساعدتها على صنع غذائها



2. Carbon dioxide (CO_2):

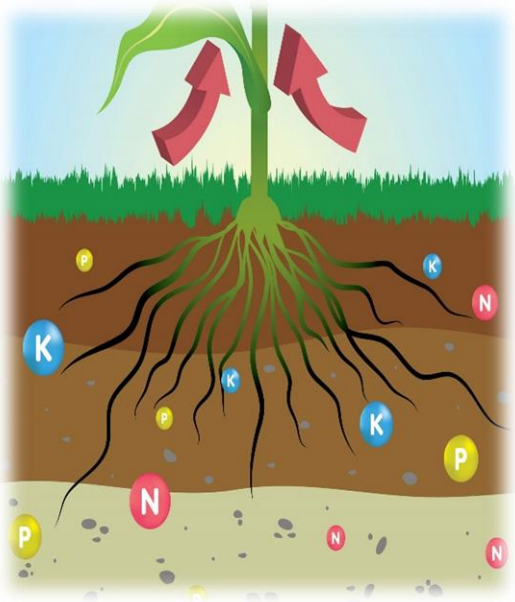
- Plants need Carbon dioxide gas, which is in the air غاز ثاني أكسيد الكربون الموجود في الهواء
- Plants take in that gas through the leaves الأوراق
- Plants need Carbon dioxide gas to make food

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3. Nutrients العناصر الغذائية

- Do you drink milk? Milk has nutrients that makes your bones and teeth stronger!
- Plants also need nutrients. They take their nutrients from the soil and from water through their roots



النباتات تحتاج إلى العناصر الغذائية. النباتات تحصل على العناصر الغذائية من الماء والتربة، وتأخذها عن طريق الجذور

4. Light

- Plants need light and take it **through the leaves**

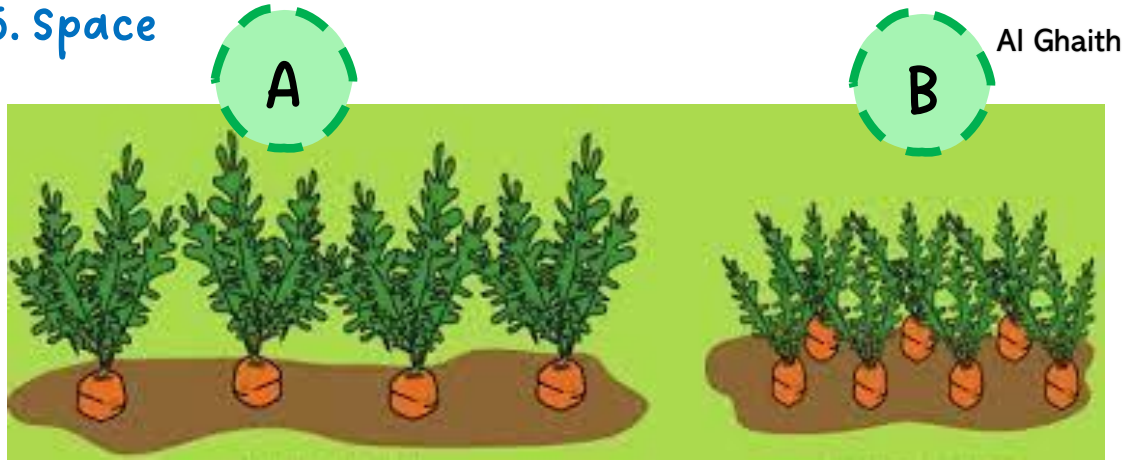
عن طريق **الأوراق**



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5. Space



Which carrot plant will grow better? Why? 🤔

- Plants need space to grow. Crowded plants will not grow in a healthy way



Do plants need a shelter (house)?

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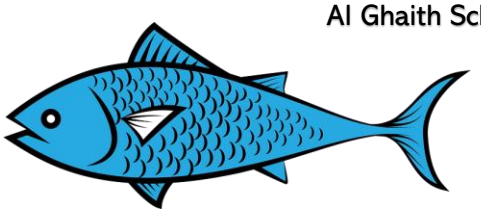
3 Oxygen (O_2)

- Animals breathe **oxygen gas**, which is in the air



Animals that live on land have **lungs** to get oxygen

الحيوانات التي تعيش على اليابسة لديها رئتين تساعدهم على التنفس

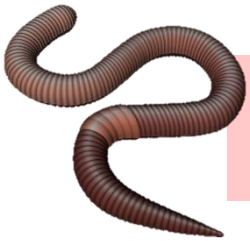


Animals that live in water have **gills** to get oxygen

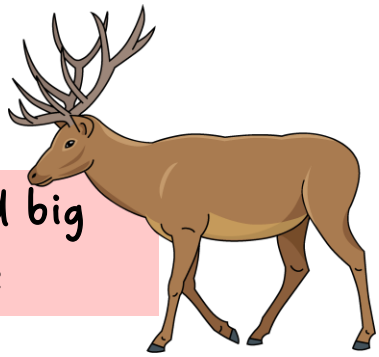
الحيوانات التي تعيش في الماء لديها خياشيم تساعدهم على التنفس

4 Space

Animals need space to move, find food and raise their young



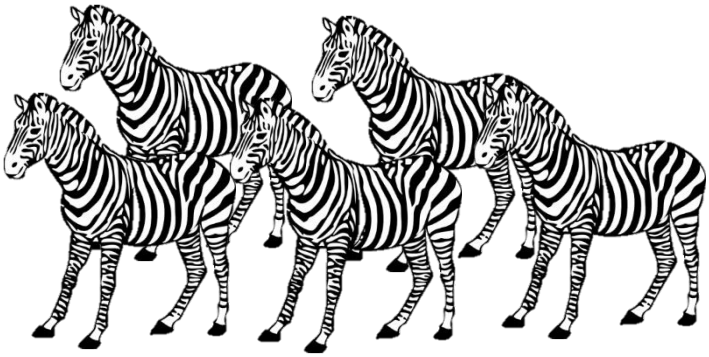
Earthworms need small space



Deer need big space

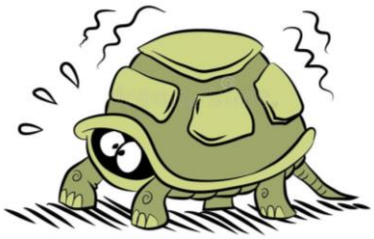
5 Shelter (House)

Animals need a safe place to be



Zebras always live together in herds. Why?





Why do turtles have shells?