

أسئلة مراجعة امتحانية نهائية منهج انسباير	
ع المناهج ← المناهج الإماراتية ← الصف الثالث ← علوم ← الفصل الأول ← ملفات متنوعة ← الملف	موق
تاريخ إضافة الملف على موقع المناهج: 25-11-202 11:10:26 11:10	
ملفات ا كتب للمعلم ا كتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس	المزيد من مادة علوم:

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المزيد من الملفات بحسب الصف الثالث والمادة علوم في الفصل الأول	
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#### HILI SCHOOL – CYCLE 1

## EXAMINATION REVIEW for SCIENCE (SEN)

## TERM 1 2022/2023

GRADE 3

UNIT 1 – FORCES AROUND US	UNIT 3 – DIFFERENT ENVIRONMENTS
Motion	<ul> <li>Survival of Organisms</li> </ul>
Forces can change motion	Adaptations & variations
UNIT 2 – ELECTRICITY & MAGNETISM	
Electricity & designing solutions	
Magnetism & designing solutions	

## Instructions:

- 1. Each Lesson has a Summary Review and Questions.
- 2. Review each lesson section carefully
- 3. Write or circle the answers.
- 4. Please use the Textbooks alongside your study.



# UNIT 1 – FORCES AROUND US

Lesson 1: MOTION

<u>What is motion</u>? It is the process of changing position. Objects can move in different motions.

Examples:



What is position?

Position is the location of an object.

Examples of words that can describe an object's position are – on, in, above, next to, far away, below



The cat is **under** the table.

When we describe **position**, we must use both **distance** and **direction**.

What is distance ?

It is the amount of space between two objects.

We can use these units of measurement for distance - **millimeters**, **centimeters**, **meters** and **kilometers**. The instruments to measure distance can be a **ruler** or **meter stick**.



The sofa is 1 meter away from the door.

What is direction ?

Direction tells which way a line points from one object or place to another.

Examples of words to describe direction are – up, down, left, right, north, south, east, west, back and forth



The car is going **left** or **west**.

# What is speed ?

It is the measure of how fast or slow an object moves.



The blue car is **faster** than the red car.

## **Practice Questions**

## **<u>Circle the correct options</u>**

- 1. Words such as **above** and **below** describe an object's \_\_\_\_\_.
  - A. Distance
  - B. Direction
  - C. Speed
  - D. Position
- 2. Which object can be used to measure distance ?









- 3. A bus travelled 35 kilometers in one hour. Which is the speed of the bus ?
  - A. 70 kilometers per hour
  - B. 35 kilometers per hour
  - C. 25 kilometers per hour
  - D. 10 kilometers per hour



4. Which is the new position of the car in picture 2?



- A. Near the barn
- B. Far from the tree
- C. Near the tree
- D. In the barn
  - 5. A toy car has to travel a distance of 3 meters. A ramp was built with 4 books. The only toy car travelled 2 meters. What can you do to increase the distance the toy car travels ?



- A. Add another marble.
- B. Add two more books
- C. Use only two books
- D. Use no books
- 6. \_\_\_\_\_\_ is the space between two objects and can be measured using a tape measure.
  - A. Position
  - B. Distance
  - C. Direction
  - D. Speed
- 7. An object is in motion if its position \_\_\_\_\_\_.
  - A. Changes
  - B. Stays the same.

## 8. The data below shows the distance a toy car travelled down three different ramps.

	Ramp 1	Ramp 2	Ramp 3	
Distance travelled in 20 seconds	4 cm	12 cm	5 cm	

Which ramp is most likely the tallest ?

- A. Ramp 1
- B. Ramp 2
- C. Ramp 3

How do you know this ?

- A. The distance is 4 cm
- B. The distance is 12 cm
- C. The distance is 5 cm

# Lesson 2 : FORCES CAN CHANGE MOTION

What is a force ?

A force is a **push** or a **pull**.



A force can be **small** or **big**. To push or pull **small things**, you need a **small force**. T push or pull **heavy things**, you need a **big force**.

There are different kinds of forces, example:



# What is a friction force ?

It is a force where two objects rub against each other. Smooth surfaces have less friction, so objects move faster. Rough surfaces have high friction and cause objects to move slower. **Example:** 

Trolley will move **fast** when there is **less friction** between the floor and trolley wheels.



Trolley will move **slow** when there is **more friction** between the trolley wheels and the grass.





An object which is **stationary** is a **balanced force** because all the forces acting on it are balanced.

**Example** – The car is **not moving**. The boy is **not moving**. Both show a **balanced force**.



When objects are moving at a constant motion, they are also balanced forces.

Example – A plane flying at 600 km/h for a long time.

Balanced forces don't cause a change in motion.

When more than one force acts on an object, then the total sum of all the forces will tell the direction of the object.

## Example:



Team A will move backwards to the right direction.

# Practice Questions

## Circle the correct options

- 1. Forces can make an object \_\_\_\_\_
  - A. Slow down
  - B. Speed up
  - C. Stop moving
  - D. All of the above

2. Forces that cause an object to move are called \_\_\_\_\_\_ forces.

- A. Balanced forces
- B. Unbalanced forces
- 3. Team A and Team B played tug-of-war. Which most likely happened if Team A won ?
  - A. Team B used more force
  - B. Both teams used the same amount of force
  - C. Team A used more force
  - D. Team A used less force.
- 4. This picture shows a balanced force. True or false ?



- A. True
- B. False
- 5. Which materials could increase the friction between objects ? Select two answers only.
  - A. Sandpaper
  - B. Oil
  - C. Rough stones
  - D. Water
- 6. Which force slowed the golf ball as it rolled ?
  - A. Gravity
  - B. Friction
  - C. Force from the golf club
  - D. Force from the golfer



7. Which type of force do you see in the picture ?



- A. Push
- B. Pull
- 8. Which type of force do you see in the picture ?



- A. Push
- B. Pull
  - 9. Which type of force do you see in the picture ?



- A. Push
- B. Pull

## **UNIT 2 : ELECTRICITY & MAGNETISM**

Lesson 1 : Electricity & designing solutions

What are all materials made up of ?

All matter is made up of tiny particles. Particles can have positive charges or negative charges.

What are electrical charges ?

This is the property of matter that causes electricity. When static electricity moves from object to another, a **discharge of charges** happens.

An object with a <b>positive charge</b> and an object with a <b>negative charge, attract</b> .	+→	
Objects that both have a <b>positive charge</b> push each other away – <b>repel</b>	++	+ ->
Objects that both have a <b>negative charge</b> push each other away – <b>repel</b>		-

This balloon is made of charged particles. When the positive and negative charges are equal, then the balloon has **neutral** charge because + and – are equal. This means there are 4 positives and 4 negatives



When one object is charged, negative charges (electrons) can move from one object to the other.



<u>What is static electricity</u>? The build-up of charges on the object.



## What is electric current ?

A flow of electric charges in a wire.



## We use electric current in our daily lives.

#### **Examples:**

## Who is Thomas Edison ?

He was an American scientist who improved the design of the light bulb to be cheaper and last longer.





## **Practice Questions**

## **<u>Circle the correct options</u>**

- 1. Two negatively charged balloons will \_\_\_\_\_\_ each other.
  - A. Attract
  - B. Repel
  - C. Balance
- 2. A flow of electrical charges is known as \_\_\_\_\_
  - A. Resistance
  - B. Static electricity
  - C. Current electricity
  - D. Voltage



- A. Attract
- B. Repel

4. Electrical charges can be either positive or \_\_\_\_\_

- A. Closed
- B. Negative
- C. Balanced
- 5. A build-up of electrical charges on the surface of different objects causes \_\_\_\_\_
  - A. Resistance
  - B. Voltage
  - C. Friction
  - D. Static electricity
- 6. What are some products that use electric currents to produce light, sound or motion ? Select ALL that apply.
  - A. Radio
  - B. Lamp
  - C. Candle
  - D. Blender
  - E. Windmill
- 7. Look at the picture and decide whether they will attract or repel each other .



# Lesson 2 : Magnetism & designing solutions

## What is a magnet ?

It is a material that can produce a magnetic field. It can attract objects like iron, steel, nickel and cobalt



What do you notice ? All these materials are **metals. Metals** are **attracted** to **magnets.** 

What does a magnet look like ? How many poles does it have ?



All magnets have different shapes , sizes and strengths. The bigger the magnet, the stronger its attraction force. A magnet has two poles, North pole (**N**) and South pole (**S**) Attraction is strongest at the poles.

Opposite poles will attract each other, but like poles(same poles) will repel each other.



A **magnetic field** is the area around the magnet which can cause attraction or repulsion. It is like an invisible force.



**Earth** also has a **magnetic field**. It is caused by the iron core deep inside planet Earth. The Earth also has two magnetic poles, **North pole (N)** and **South pole (S)** 



# What is a compass ?

It is a tool that helps us find directions. The needle inside the compass is a magnet. This magnet is attracted to the Earth North pole. Note that a compass needle always points toward the North.



An electromagnet uses current electricity to produce a magnetic field and matre a temporary magnet.

The parts that make up an electromagnet are : wire, battery, iron nail.

We find that the magnetic field is stronger when using the electromagnet if:

- 1. Increase the number of batteries
- 2. Increase the number of times the wire is coiled around the nail.

Electromagnets are found and used in many appliances.

# Examples :



Doorbells



Radio speakers



Washing machine

A **dynamo** is a simple tool that changes motion energy into electricity.

# **Practice Questions** Circle the correct options

- 1. Which device uses a magnet?
  - A. Light bulb
  - B. Compass
  - C. Battery
  - D. Fuse
- 2. \_\_\_\_\_\_ is the ability of an object to push or pull on another object made of iron, steel or nickel.
  - A. Force
  - B. Magnetism
- 3. Some metal thumb tacks spilled on the classroom floor. Which is the safest way to pick them up ?
  - A. Battery
  - B. A pair of tweezers
  - C. Magnet
  - D. Piece of steel
- 4. Your metal door will not stay shut. How could a magnet solve this problem ?
  - A. Add a large magnet to the door to make it heavy
  - B. Create a latch with one magnet on the door frame and one on the latch
- 5. Which material will be attracted to a magnet?

6. Which pair of magnetic poles attract one another?

S







Wood

Glass



A. Two north poles

S

B. Two south poles

Ν

C. One North pole and one South pole

N



## **UNIT 3 – DIFFERENT ENVIRONMENTS**

Lesson 1 : Survival of organisms

What do plants need to survive ?



**Competition** is when plants and animals fight for resources so that they can stay alive (survive).

Some resource examples are :

Soil , water , air , sunlight , space , shelter

An **ecosystem** is where the living and non-living which interact in the ecosystem.

Example :

In this picture the **living thing** interacts with the **non-living thing**. The **antelope** is **living**. It needs the air (oxygen), water and sunlight to survive. The **water**, **air** and **sun** are non-living.



Examples of living things are : all animals and plants as well as bacteria

Examples of non-living things in an ecosystem are the air, sun, rocks, soil.

When animals or plants cannot get what they need to survive, they can **die**. Some animals can move to a new environment. When resources are scarce, birds can fly away to where there are resources.

# Practice Questions Circle the correct options

- 1. How do plants survive in the desert environment ?
  - A. They have large leaves
  - B. They grow in groups
  - C. They have thick waxy stems
  - D. They have deep roots
- 2. How do polar bears and arctic foxes survive the ice cold snow and ice ?
  - A. They drink a lot of water
  - B. They grow thick fur to stay warm
  - C. They come out at night when it is warmer





- 3. Young animals will have \_\_\_\_\_ adaptations as their parents.
- A. Different
- B. Similar

4. How do birds survive in a forest?

- A. They can gather water with their claws.
- B. They can build nests for shelter
- C. They can use their wings to eat



- 5. What can an animal do if they can no longer survive in their habitat ? Select **all** that apply.
  - A. Animals can change their needs to meet the environment
  - B. Animals can adapt to changing environments
  - C. Animals can move to habitats that meet their needs.
- 6.A desert is a dry habitat. Some deserts are very hot during the day. What best describes how animals survive in the desert ?
- A. They drink a lot of water
- B. They have heavy fur to keep them warm
- C. They come out at night when it is cooler.
- 7. Some animals can live in more than one habitat. Which best explains why this is true ?
  - A. Both habitats meet the animal's needs
  - B. Both habitats are warm all year
  - C. Both habitats have many kinds of animals
- 8. Which need is not for plants ?
  - A. Water
  - B. Sunlight
  - C. Air

A.

D. Shelter

9. Which part of the plant needs sunlight to make food ?



The



Β.



Leaves

- **10**. Which one will plants compete for to survive ? Select **all** that apply
  - A. Shelter
  - B. Shade
  - C. Sunlight
  - **D**. water
- 11. Which thing is not a living thing ?
  - A. Elephant
  - B. Cactus
  - C. River
  - D. Lizard

12. An environment where living and non-living interact together.

- A. Competition
- B. Ecosystem
- C. Resource