Science

Sixth Primary

First Term

Unit ONE

FORCE AND MOTION

I - Give reason for each of the following :

1 – The mass of the body on the Earth's surface is equal to the mass of the same body on the Moon's surface?

Because the **mass** of the body is a **fixed (constant) (stable)** value and it **doesn't** change by changing the place of matter

2 – The balance scale should be placed horizontally on a stable shelf?

To **avoid** any **vibration** for the balance scale

3 – Object's falling downward the Earth?

Due to the effect of **weight (gravitational force)**

4 – The wire of the spring scale expands when a body is hanged to it?

Because the gravitational force of the Earth **attracts** the **hanged body** downwards so the wire of the spring scale **expands**

5 – The force of the Moon's gravity is less than the Earth's gravity?

The gravitational force of the Moon is less than that of the Earth?

Because the **mass** of the Moon is **less** than the **mass** of the Earth

6 - The force of the Earth's gravity is larger than the Moon's gravity?

The gravitational force of the Earth is larger than that of the Moon?

Because the **mass** of the Earth is **larger** than the **mass** of the Moon

7 – The weight of an object changes according to the planet (place) where the object exists?

Because as the **mass** of the planet **changes,** its **gravity changes**, so the **weight** of any object on it **changes**

8 – The weight of a person on the Moon's surface is smaller than that on the Earth's surface?

Because the **Moon** has **less mass** and **gravitational force** than the **Earth**

9 – The weight of a person on the Earth's surface is larger than that on the Moon's surface?

Because the **Earth** has **greater mass** and **gravitational force** than the **Moon**

10 – The weight of a person in a flying balloon is smaller than that on the Earth?

Because the **gravitation force** of **the Earth** to the person in the balloon **decreases** when the **distance** between the balloon and center of the Earth **increases,** so the **weight** of the person **decreases**

2 – What happens when :

1 – There is no gravity on the Earth's surface?

All objects on the Earth's surface **don't** have weight

All objects on the Earth's surface will be in state of **weightlessness**

2 – You hang a body in the bottom hook of a spring scale?

The body **pulls** the **wire** of the spring scale **downwards** and the **reading** of the pointer **increases**

3 – The mass of an object increases?

Its **weight** increases

4 – The mass of an object decreases to half?

Its weight **decreases** to **half**

5 – The mass of the planet where the object exists increases?

The **gravitational force** to any object on the planet **increases,** so the **weight** of objects on it **increases**

6 – You measure the weight of a toy car on the Earth's surface, then measure its weight on the Moon's surface?

The weight of the toy car on the **Earth's** surface **equals 6 times** from its weight on the **Moon's** surface

The weight of the toy car on the **Moon's** surface **equals 1/6** from its weight on the **Earth's** surface

7 – The distance between a person in a flying balloon and the center of the Earth increases?

The **gravitational force** to the **person** in the flying balloon **decreases,** so the **weight** of the **person** in the balloon **decreases**

8 – The distance between a person in a flying balloon and the center of the Earth decreases?

The **gravitational force** to the **person** in the flying balloon **increases,** so the **weight** of the **person** in the balloon **increases**

THANK YOU

Science

Sixth Primary

First Term

Unit TWO

Lesson ONE

HEAT CONDUCTION

I - Give reason for each of the following :

1 – Heat is an important form of energy in our daily life?

Because it is used in:

- Warming houses
- Cooking
- Heating water
- Drying washed clothes

2 – Heat has countless usages in industry?

Because it is used in **glass industry, processing food industry, paper industry and textiles industry**

3 – When you hold a piece of ice in your hand, you feel cold?

Because the heat transfers from the **higher** temperature object **(your hand)** to the **lower** temperature object **(the piece of ice),** so you feel **cold**

4 – When you hold a hot cup of tea in your hand, you feel hot?

Because the heat transfers from the **higher** temperature object **(the cup of tea)** to the **lower** temperature object **(your hand),** so you feel **hot**

5 – Stainless steel is a heat conductor (good conductor of heat)?

Because it **allows** the heat to flow through

6 – Copper, iron and aluminium are heat conductor (good conductors of heat)?

Because they **allow** the heat to flow through

7 – Air is a heat insulator (bad conductor of heat)?

Because it **doesn't allow** the heat to flow through

8 – Liquids, wood, plastic and wool are heat insulators (bad conductor of heat)?

Because they **don't allow** the heat to flow through

9 – Copper is a heat conductor, while wood is a heat insulator?

Because copper **allows** heat to flow through, while wood **doesn't** allow heat to flow through

10 – Copper differs from plastic in conducting heat?

Because copper **allows** heat to flow through, while plastic **doesn't** allow heat to flow through

11 – In the insulating glass window, there is a space filled with air between the two glass sheets?

To **prevent** the **leakage** of **heat**

12 – Leaving spaces between railway bars?

To **avoid** train accidents, where **iron** is a **good conductor of heat** that **expands** and **twist** by heat

13 – Copper differs from aluminium and iron in conducting heat?

Because **copper** conducts heat **faster** than **aluminium** and **iron**

14 – Aluminium, copper and stainless steel are very important heat conductors?

Because they are uses in making **cooking utensils** and **kettles** that are used in **houses** and **factories**

15 – Cooking utensils and kettles are made of copper or stainless steel?

Because they **allow** heat to flow through as they are **heat conductors (good conductors of heat)**

16 – Plastic and wood are very important heat insulators?

Because they are uses in making the **handles** of cooking utensils, electric iron and kettles

17 – The handles of cooking utensils and kettles are made of plastic or wood?

Because they **don't allow** heat to flow through as they are **heat conductors (bad conductors of heat)**

18 – Wool is a very important heat insulator?

Because it is used in making **heavy blankets** and **woolen clothes**

19 – Wool is used in making heavy blankets and woolen clothes?

It is necessary to wear woolen clothes in winter?

To **keep** our bodies warm and **prevent** the leakage of heat

2 – What happens when :

1 – You hold a piece of ice with your hand?

I feel **cold,** because the **heat** transfer from **my hand** to **the piece of ice**

2 – You touch a hot cup of tea?

I feel **hot,** because the **heat** transfer from **the hot cup of tea** to **my hand**

3 – You touch one end of a copper rod, where the other end is exposed to a flame of a candle?

I feel **hot,** because **copper** is a **heat conductor (good conductor of heat)**

4 – You touch one end of a glass rod, where the other end is exposed to a flame of a candle?

I **don't** feel **hot,** because **glass** is a **heat insulator (bad conductor of heat)**

5 – Two bodies have the same temperature touch each other?

Heat **doesn't** transfer from one body to the other **as** they have the **same** temperature

6 – There are no spaces between the railway bars?

The train accidents **may** occur

7 – The handles of kettles and cooking utensils are made of stainless steel?

We **couldn't** hold them with our hands **as** stainless steel is a **heat conductor (good conductor of heat)**

8 – All substances that the man uses are good conductor of heat?

We **can't** make **handles** of cooking utensils, electric iron and kettles and we **can't** make **woolen clothes** and **heavy blankets** that keep our bodies warm in winter

THANK YOU

Science

Sixth Primary

First Term

Unit TWO

Lesson TWO

MEASURING TEMPERATURE

I - Give reason for each of the following :

1 – We can't measure the temperature of objects by touching?

Because the **sense of touching** helps us to know if the object is **hot** or **cold** only, but it **can't** measure the temperature **accurately**

2 – The idea of making thermometers depends on changing the volume of liquids by changing the temperature?

Because liquids **expand** by heat and **contract** by cooling

3 – In the clinical thermometer, there is a constriction above the mercury bulb?

To **prevent** mercury from going back to the mercury bulb **quickly** in order to read the measurement **easily**

4 – The medical thermometer must be put in ethyl alcohol before use?

To **sterilize** the medical thermometer before use

5 – We must shake the medical thermometer well before use?

To **force** the mercury back to the mercury bulb

6 – The thermometer must be kept out the reach of children?

Because the mercury that is used inside the thermometer is a **toxic substance**

7 – The medical thermometer can't measure the temperature of iced water?

Because the **scale** of the **medical thermometer** ranges from **35°C** to **42°C** and the temperature of ice water is **0°C**

8 – The medical thermometer can't measure the temperature of boiled water?

Because the **scale** of the **medical thermometer** ranges from **35°c** to **42°c** and the temperature of ice water is **100°c**

9 – Mercury is used in making thermometers?

Because:

- It is a **liquid metal** that can be seen easily through the thermometer glass
- It is a **good** conductor of heat

- It is a **regular expanding material**
- It **doesn't** stick to the walls of the **capillary tube**
- It **remains liquid** between (-39°c and 357°c)

10 – The mercury gives a wide range to measure the temperature?

Because it is a **regular expanding material** and it **remains liquid** between (-39°c and 357°c)

2 – What happens when :

1 – There is no constriction above the mercury bulb in medical thermometer?

The mercury will **go back** to the mercury bulb **quickly** before reading the temperature accurately

2 – The medical thermometer is not sterilized before use?

We **may be** infected with some diseases

3 – We don't shake the medical thermometer well before use?

We **can't** measure the temperature accurately

4 – A medical thermometer is put in boiled water?

The thermometer will be **damaged**, because the **boiling** point of water is 100°c

5 – Water is used instead of mercury in making thermometers?

The thermometer **can't** measure the temperature, because water is **not** a regular expanding material

THANK YOU

Science

Sixth Primary

First Term

Unit THREE

Lesson ONE

OXYGEN

I - Give reason for each of the following :

1 – Although smoke and dust particles in the atmosphere are considered air pollutants, they have an important role in the formation of rains and snow?

Because they help in the **condensation** of **water vapour** in air and **formation** of **rains** and **snow**

2 – The atmosphere has a great importance for the continuity of life on Earth?

Because

- It **protects** the Earth by **absorbing ultraviolet radiations** coming from **outer space**
- It **adjusts** the temperature of the Earth's **surface**

3 – The percentage of oxygen gas remains constant in the atmosphere?

Because oxygen gas that is consumed (used) during **respiration** and **combustion** process is **compensated by** the **green plants** during **photosynthesis process**

4 – The ratio of oxygen gas remains fixed in the atmosphere although it is consumed during respiration and combustion process?

Because oxygen gas that is consumed (used) during **respiration** and **combustion** process is **compensated by** the **green plants** during **photosynthesis process**

5 – Manganese dioxide acts as a catalyst during the preparation of oxygen?

Because it is a chemical substance that **remains** without any change in its **quantity** and **properties** during the chemical reaction

6 – Manganese dioxide remains without any change in its quantity and properties during the preparation of oxygen?

Because it acts as a **catalyst**

7 – Oxygen gas is collected by downward displacement of water?

Because it **scarcely (rarely)** dissolves (soluble) in water

8 – When you turn a cylinder filled with oxygen over a cylinder filled with air, oxygen gas replaces air in the lower cylinder?

Because oxygen is **heavier** than air

9 – A burning match (fragment) is still burning when it is placed in a cylinder filled with oxygen?

Because oxygen **helps** in burning

10 – Iron nails rust when exposed to moist air?

Because **iron** combines (reacts) with **oxygen** in the presence of **moisture (water)** forming a layer of **rust**

11 – Rusting of iron has many disadvantages?

Because it causes **corrosion** and **damage** of **ironware** such as **bridges' pillars** and **ships' pillars**

12 – When you burn a ball of cleansing wire strongly, its mass increases?

Because **iron** combines (reacts) with **oxygen** forming **iron oxide** whose mass is **higher than** the mass of **iron only**

13 – Oxygen is important for human and all living organisms?

Because it is used in:

- **Respiration** of all living organisms
- **Combustion (burning)** of **food** inside the **living cells** to produce **energy** that is needed for **all vital process**
- Formation of **water**

14 – Ozone layer is very important for the life of living organisms?

Because it **protects** the Earth form **harmful radiations** coming from the **Sun**

15 – Oxygen gas is compressed in iron cylinders?

To be used:

- In **mechanical ventilation**
- During **surgeries**
- During **diving** and **climbing mountains**

16 – Divers use oxygen cylinders during diving under the water surface?

Divers carry oxygen cylinders on their backs during diving?

Because **oxygen** is necessary for **respiration** under the water surface

17 – Oxygen cylinders are used during climbing mountains?

Because oxygen is **heavier** than air, so its percentage (ratio) **decreases** when we rise above the Earth's surface

18 – Oxy-acetylene flame is used for cutting and welding metals?

Because its temperature rises to **3500°c** which is **sufficient** to cut and weld metals

2 – What happens when :

1 – There is no atmosphere?

The **ultraviolet radiations** will reach the Earth from the **outer space,** so the **temperature** of the Earth will **variable**

2 – There is no oxygen in the atmosphere?

Living organisms **can't respire,** so they will die and the **combustion process** doesn't occur

3 - Hydrogen peroxide is dropped over manganese dioxide?

- **Hydrogen peroxide** is **decomposed** into **water** and **oxygen gas**
- Manganese dioxide **doesn't change** in its quantity and properties

4 – Putting a burning fragment in a cylinder filled with oxygen?

A burning fragment is inserted in a cylinder filled with oxygen gas?

The burning fragment is **still** burning, because oxygen **helps** in burning

5 – A lighted magnesium ribbon is placed in a jar filled with oxygen?

Magnesium oxide is formed which is **a white matter**

6 – Leaving iron nails in moist air for a long time?

Iron will combine with **oxygen** in the presence of **moisture (water)** so iron nails will **rust**

7 – The bridges' pillars are not isolated with paints?

They will **rust** causing **corrosion** and **damage** to the bridge

8 – A ball of cleansing wire burns?

Its **mass increases** after burning due to the combination (reaction) with oxygen

9 – Ozone layer is decayed?

The **harmful radiations** will reach the Earth from the **Sun** and causes **harms** to the living organisms

10 – The percentage of oxygen gas in air is more than 21%?

Living organisms **can't respire,** so they will die and the **combustion process** doesn't occur

11 – The percentage of oxygen gas decreases in the atmosphere?

We **can't** control **combustion (burning) process** as oxygen **helps** in burning

THANK YOU

Science

Sixth Primary

First Term

Unit THREE

Lesson TWO

CARBON DIOXIDE

I - Give reason for each of the following :

1 – Carbon dioxide gas has a great role for the continuity of life on the Earth?

Because it is necessary for **green plants** to make their own food by **photosynthesis process** and produce **oxygen gas** that is important for **respiration** all living organisms

2 – Clear limewater is used to detect the presence of carbon dioxide gas?

Because clear limewater turns into **milky (turbid)** when carbon dioxide gas passes through it

3 – Clear limewater gets turbid if carbon dioxide gas passes through it?

Due to the formation of **calcium carbonate** (white ppt.) which is **in**soluble in water and causes the **turbidity** of clear limewater

4 – In recent years, the percentage of carbon dioxide gas increases in the atmosphere?

Due to
- The removal of **forests**
- **Burning** a massive amount of **fuel** in **factories** and **means of transport**

5 – The environment suffers from the increase in the percentage of carbon dioxide gas?

Due to
- The removal of **forests**
- **Burning** a massive amount of **fuel** in **factories** and **means of transport**

6 – The removal of forests leads to the increase in the percentage of carbon dioxide gas in nature?

Because plants **take** carbon dioxide gas to make their own food by photosynthesis process

6 – Decreasing the green areas is harmful?

Because this **increases** the percentage of **carbon dioxide gas** in the atmosphere

7 – Carbon dioxide gas is collected by upward displacement of air?

Because it is **heavier** than air

8 – Carbon dioxide gas is not collected by displacement of water?

Because it **easily** dissolves in water

9 - Carbon dioxide gas is collected by upward displacement of air not water?

Because it is **heavier** than air and **easily** dissolves in water

10 – Burning magnesium ribbon in the presence of carbon dioxide gas produces white and black substances?

Because burning **magnesium ribbon** in **carbon dioxide** produces **magnesium oxide** which is **a white substance** and **carbon (coal)** which is **a black substance** that **deposits** on the wall of the cylinder

11 – It is danger to increase the percentage of carbon dioxide gas in air?

Because it causes:

- **Suffocation** of living organisms
- **Increasing** the temperature of the **Earth's atmosphere**, as well as **global warming**

12 – Carbon dioxide gas has many benefits?

Because it is used in:

- Making **dry ice** which is used in **refrigeration**
- Extinguishing **some types** of fires
- Making **soft drinks**
- Making **bubbled bread**
- Photosynthesis process

13 – Carbon dioxide gas is used in extinguishing fires?

Because it **doesn't** burn and **doesn't** help in burning

14 – Yeast is added to dough (pastry) on making bread?

To produce **carbon dioxide gas** by **fermentation process** that **expanded** by **heat** making bread **porous** and **tasty**

15 – Photosynthesis process is important for all living organisms?

Because by this process, green plants produce **their food** and produce **oxygen gas** that is important for **respiration** all living organisms

16 – Scientists called soft drinks “the useless food”?

Because it **doesn’t** contain **any nutrients** except **sugar**

17 – Drinking big quantities of soft drinks is harmful?

Because it means that you swallow a big amount of **carbon dioxide gas** that causes **osteoporosis** and may cause **death**

18 – Drinking big quantities of soft drinks leads to osteoporosis?

Because the **ratio (percentage)** of carbon dioxide gas **increases in the blood** and this **decreases** the getting of oxygen which is important for all vital process

2 – What happens when :

1 – One carbon atom linked with two oxygen atoms?

A molecule of carbon dioxide will be formed

2 – The percentage of carbon dioxide gas in air decreases?

Green plants **can’t** make photosynthesis process, so the percentage of **oxygen** will **decrease** in the atmosphere and living organisms will die

3 – You blow in a jar contains clear limewater?

Clear limewater turns into **milky** because the **exhaled air** contains **carbon dioxide gas**

4 – Most of forests are removed?

The **percentage** of **carbon dioxide** will **increase** in the atmosphere that causes **severe harms** to the **Earth’s climate**

5 – Dilute hydrochloric acid is dropped over calcium carbonate?

They will react together and **carbon dioxide gas** will evolve

6 – Lemon juice or vinegar reacts with sodium bicarbonate?

They will react together and **carbon dioxide gas** will evolve

7 – A lighted candle is put in a cylinder filled with carbon dioxide gas?

The **lighted candle** will **extinguish**

8 – A lighted magnesium ribbon is inserted in a cylinder filled with CO_2?

Magnesium ribbon **keeps burning** for **a short time** then **extinguishing** producing **magnesium oxide** which is **a white substance** and **carbon (coal)** which is **a black substance** that **deposits** on the wall of the cylinder

9 – The percentage of carbon dioxide gas increases?

This causes:

- **Suffocation** of living organisms
- **Increasing** the temperature of the **Earth's atmosphere,** as well as **global warming**

10 – Carbon dioxide gas is exposed to pressure and cooling?

Carbon dioxide **gas** will be changed into **liquefied carbon dioxide**

11 – The pressure on liquefied carbon dioxide is relieved?

Dry ice is formed which is used in **refrigeration**

12 – Yeast is added to dough on making bread?

Carbon dioxide gas is produced by **fermentation process** that **expanded** by **heat** making bread **porous** and **tasty**

13 – Drinking big quantities of soft drinks?

This causes **osteoporosis** and may cause **death**

THANK YOU

Science

Sixth Primary

First Term

Unit THREE

Lesson THREE

NITROGEN

I - Give reason for each of the following :

1 – Nitrogen is very important for legumes?

Because **legumes** need **nitrogen gas** to form **protein** by the help of **special type of bacteria (nodular bacteria)** that live in their **roots**

2 – Nitrogen is very important in the human's life?

Nitrogen contributes in the composition of all living tissues?

Because it forms **protein substances** that builds up the **body** of all living organisms

3 – The main source to prepare nitrogen is the air?

Because nitrogen represents about **78%** of the air **volume**

4 – During preparation of nitrogen, air is passed over concentrated sodium hydroxide or potassium hydroxide?

To absorb **carbon dioxide gas** from **atmospheric air**

5 – During preparation of nitrogen, air is passed over hot copper?

To remove **oxygen gas** from **atmospheric air**

6 – Nitrogen is collected by the downward displacement of water?

Because nitrogen **scarcely (rarely)** dissolves (soluble) in water

7 – A lighted match puts off it its inserted in a jar contain nitrogen gas?

On putting a lighted match in a cylinder filled with nitrogen, the match is put out?

Because nitrogen gas **doesn't** help in burning

8 – A very pungent smell is evolved as a result of adding water to the product of burning magnesium ribbon in nitrogen gas?

Due to the formation of **ammonia** gas which has **a very pungent smell**

9 – Nitrogen is called azote "lifeless gas"?

Because it **doesn't** help in burning and **doesn't** contribute in **respiration process**

10 – Nitrogen is recently used in filling car tires?

Because nitrogen is characterized by **relative constancy in volume** when the **temperature changes**

11 – Liquefied nitrogen is used for cooling food, medicines and vaccines?

To **preserve** them to be **transferred** easily

12 – Nitrogen is used to store petroleum, liquefied explosives and flammable materials?

Because it is **in**active element

13 – Nitrogen has a great role in industries?

Because it is used in the manufacturing of:

- Gunpowder
- Electronic devices
- Stainless steel (It is a type of **iron** which **doesn't rust**)

2 – What happens when :

1 – Oxygen reacts with nitrogen during lightening?

Nitrogen oxide is formed which reaches soil during **raining**

2 – Getting rid of soil bacteria?

Legumes as **clover, peas** and **soybeans** can't make protein

3 – Nitrogen is not present in the atmospheric air?

The **protein substances** that build up the **bodies** of all living are **not** formed

4 – Atmospheric air is passed over a solution of concentrated sodium hydroxide or potassium hydroxide?

They will absorb **carbon dioxide** form the atmospheric air

5 – Atmospheric air is passed over hot copper?

It will remove **oxygen** from the atmospheric air

6 – A lighted magnesium ribbon is placed in a cylinder filled with nitrogen, then add some drops of water to the produced substance?

A white substance is produces which **reacts** with **water** forming **ammonia gas** which has **a very pungent smell**

THANK YOU

Science

Sixth Primary

First Term

Unit FOUR

Lesson ONE

HUMAN NERVOUS SYSTEM

I - Give reason for each of the following :

1 – Dendrites extend from the neuron's body?

To connect the **neuron's body** to the **neighboring neurons** to form the **synapse (synaptic area)**

2 – The axon ends with nerve endings?

To form **a synapse** with other neurons **or** to connect with the **muscles**

3 – Brain is located in the skull?

To **protect** it

4 – Brain is the control center in the human body?

Because it **directs** and **coordinate** all the **process, ideas, behaviours** and **emotions**

5 – Cerebrum is a very important part of the brain?:

Because
- It controls the **voluntary movements** of the body such as **waking, siting** and **wining in races**
- It receives **nerve impulses (messages)** from the **five sensation organs** (eyes, ears, nose, tongue and skin) and sends the **suitable response to these impulses**
- It contains the centers of **thinking** and **memory** (concentration)

6 – The cerebrum helps you in wining races?

Because it controls the **voluntary movements** of the body such as **waking, siting** and **wining in races**

7 - Cerebellum is a very important part of the brain?

Because it **maintains** the **balance of the body** during **the movement**

8 – The medulla oblongata keeps you alive during sleeping?

Because it is responsible for **regulating** the **involuntary process** of the body as:

- Regulating **heartbeats**
- Regulating the **movement** of the **respiratory system** parts **during breathing**
- Regulating the **movements** and **functions** of the **digestive system**

9 - Damage of medulla oblongata leads to death?

Because it is responsible for **regulating** the **involuntary process** of the body as:

- Regulating **heartbeats**
- Regulating the **movement** of the **respiratory system** parts **during breathing**
- Regulating the **movements** and **functions** of the **digestive system**

10 – The medulla oblongata helps in digestion?

Because it regulates the **movements** and **functions** of the **digestive system**

11 – The spinal cord in surrounded by the vertebrae of the backbone?

To **protect** it

12 – Moving your hand away quickly on touching a plant with sharp thorns?

Due to the **reflex action** made by the **spinal cord**

13 – The withdrawal of your hand quickly when on touching a hot surface?

Due to the **reflex action** made by the **spinal cord**

14 – Blinking when something gets close to the eye?

Due to the **reflex action** made by the **spinal cord**

15 – Constriction of the eye pupil on intense light and its widening on dim light?

Due to the **reflex action** made by the **spinal cord**

16 – Sweating in hot days?

Due to the **reflex action** made by the **spinal cord**

17 – Trying balance during sliding down?

Due to the **reflex action** made by the **spinal cord**

18 – Secreting saliva on seeing or smelling good food?

Due to the **reflex action** made by the **spinal cord**

19 – Running quickly on seeing a fast moving car coming towards you?

Due to the **reflex action** made by the **spinal cord**

20 – The nervous system has a special importance in the human body?

Because:

- It **caries** the **nerve impulses (messages)** from one area to another in the body
- It **regulates** and **coordinates** all the vital process within the body
- It **receives** the **external stimuli** though the **sensation organs** then **identifies** and **interprets** them

21 – You must reduce the intake of stimulating substances such as coffee?

Because they:

- **Affect** sleeping periods
- **Affect** heart beats
- **Lead to** nervous tension

22 – You should stay away from tranquilizers and stimulants?

It is important not to take the sleeping pills without doctor's prescription?

To keep the **nervous system** healthy

23 – You should keep away from sitting a lone periods in front of computer?

To **avoid** the **exhausting** of **sense organs** and **t**o keep the **nervous system** healthy

24 - It is important to avoid exhausting the sensory organs?

To keep the **nervous system** healthy

25 – You should avoid the extreme exciting situations?

To keep the **nervous system** healthy

26 – You must stay away from the sources of pollution as noise and smoke?

To keep the **nervous system** healthy

27 – Addiction passively affects on the nervous system? Because it causes:

- Retardation of **memory** and **learning**
- Nervous tension
- Sluggishness
- Loss of **time sensation**
- Sleepless

28 – You should do physical exercises?

To keep the **nervous system** healthy

29 – You must sleep sufficient periods of time?

To keep the **nervous system** healthy

2 – What happens when :

1 – The absence of dendrites and axon terminal from the neurons?

The synapse are **not** formed

2 – The cerebellum is shocked hardly?

The body will **lose** its balance

3 – The medulla oblongata is removed from the body?

All the **involuntary process** of the body will be **disturbed** and **causes death**

4 – Your finger gets picked by the plant thorns?

The withdrawal of your hand **quickly** occurs due to the **reflex action** made by the **spinal cord**

5 – Touching a very hot surface?

The withdrawal of your hand **quickly** occurs due to the **reflex action** made by the **spinal cord**

6 – Approaching something to your eye?

The **blinking** of the **eyelashes** occurs due to the **reflex action** made by the **spinal cord**

7 – Increasing the intake of stimulants? Increasing the intake of tea or coffee?

The nervous system will be **exhausted** as they:

- **Affect** sleeping periods
- **Affect** heart beats
- **Lead to** nervous tension

8 – Sitting for long times in front of the computer or television?

The nervous system (sense organs) will be **exhausted**

9 – Continuous exposure to contaminated air by the factories smoke?

The nervous system will be **exhausted**

10 – The exposure of human to noise continuously?

The nervous system will be **exhausted**

11 – The body doesn't take sufficient period of rest?

The nervous system will be **exhausted**

THANK YOU

Science

Sixth Primary

First Term

Unit FOUR

Lesson TWO

HUMAN LOCOMOTORY SYSTEM

I - Give reason for each of the following :

1 – The movement is very important to living organisms (human)?

Because it helps in moving from on place to another **seeking** for benefit or **away** from harm

2 – Movement of man depends on three systems?

Because it occurs by the **participation** and **integration** of **skeletal, muscular** and **nervous system**

3 – The skull is an important structure in the skeletal system?

Because
- It is **a bony box** that contains **cavities** for **eyes, ears** and **nose**
- It **protects** the **brain**

4 – The backbone contains cartilages between vertebrae?

To prevent **their friction** during motion

5 – The backbone is very important?

Because
- It **allows** the **body** to **bend** in **different direction**
- It **protects** the **spinal cord**

6 – The ribcage is very important?

Because
- It protects the **heart** and the **lungs**
- It helps in the **inhalation** and **exhalation** processes (respiration or breathing)

7 – The rib cage surrounds both the heart and the lungs?

To protect the heart and the lungs

8 – The skull is an immovable joint?

Because it **doesn't** allow **any** movement

9 – Knee and elbow are slightly movable joints?

Because they **allow** the movement in **one direction only**

10 – The knee joint is a slightly movable joint?

Because it **allows** movement in **one direction only**

11 – Shoulder, wrist and thigh (hip) are freely movable joints?

Because they **allow** the movement in **all directions**

12 – The thigh (hip) joint is a freely movable joint?

Because it **allows** the movement in **all directions**

13 – Muscles play an important role in human movement?

Muscular cells play an important role in our body movement?

Muscles can generate movement to the body?

Because the **contraction** and **relaxation** of the **muscles (muscular cells)** generate the **mechanical energy** that moves our bodies

14 – Muscles are fixed to the bones?

Due to the presence of **tendons** that fix **muscles** to **bones**

15 – The muscles of our limbs, trunk, face and abdominal wall are voluntary muscles?

Because they are the muscles that can **move willingly** and we **can** control their movement

16 – The muscles of the gastrointestinal tract, blood vessel and urinary bladder are involuntary muscles?

Because they are the muscles that can **move automatically** and we **can't** control their movement or **even be aware** of it

17 – You must eat food that rich in calcium, phosphorous and vitamin D?

To **prevent** bone diseases such as **osteaomalacia** and **rickets**

18 – You must avoid jumping from high places and making violent movements?

To **avoid factures** and **sprains**

19 – You must avoid carrying heavy objects that exceed your ability?

To **protect** the **skeleton**, especially the **backbone**

20 – You must sit and stand correctly especially during studying and reading?

To **avoid straining** the **neck** or **backbone vertebrae**

21 – You must expose yourself to sunlight for suitable periods?

Due to the importance of sunlight in providing the body with **vitamin D**

22 – You must exercise regularly?

To keep the **locomotory system** healthy

2 – What happens when :

1 – The backbone consists of one long bone?

The human body **can't** bend in different directions

2 – All the skeletal system bones are one bone (fused)?

All the bones of the human body are without joints?

The body **can't** move

3 – The shoulder joints become from the limited movement joints?

The **two upper limbs** will move in **one** direction **only,** so they **can't** move freely

4 – Hip (thigh) joint has a limited movement?

The **two lower limbs** will move in **one** direction **only,** so they **can't** move freely

5 – The muscles are not fixed to bones?

The body **can't** move with the **contraction** and **relaxation** of the **muscles**

6 – The front arm muscle contracts and the back arm muscle relaxes?

This causes the **bending (moving up)** of the **forearm** by the help of **elbow joint**

7 – The front arm muscle relaxes and the back arm muscle contracts?

This causes the **extending (moving down)** of the **forearm** by the help of **elbow joint**

8 – Jumping from high places or making violent movement?

The body may be infected by **fractures** and **strains**

9 – The body is not exposed to the sunlight for suitable periods of time?

The body will suffer from **vitamin D deficiency** and may be infected with **bone diseases** such as **osteomalacia** and **rickets**

THANK YOU