**PREFACE**

The science doctor is prepared to correct the common mistakes done as far as answering science questions is concerned

This book can be used by learners from primary three to primary seven. The language used in this book is simple to be understood by learners at the levels mentioned above.

Great care has been taken to make this book as comprehensive as possible, but at the same time to keep it within the scope of targeted users.

The author welcomes remarks, comments and suggestions from science teachers and the general public.

Together we can make science passable and enjoyable by learners

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BYARUHANGA STEPHEN

0775719841/ 0755322865

EMAIL: byaruhangastephen368@gmail.com

**ABOUT THE AUTHOR**

The author is a teacher of science with an experience of eight years teaching primary seven science.

He has taught in various schools in the country and currently is the head of science department at Katabarwa Memorial Primary School Rwampara District in Southwestern Uganda.

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**DEDICATION**

I dedicate this piece of work to my grandmother Mrs. Anamaria Bagowabo for her tremendous efforts to ensure that I get education. May the Almighty God bless her abundantly.

**LET’S PASS SCIENCE**

1. What is germination?

Correct response.

Germination is the growing of the seed embryo into a seedling.

Wrong response.

Germination is the growing of a seed into a seedling.

Note: During germination, it the plumule and the radical which develop but not the whole

seed.

1. Give one reason why we boil water for drinking.

Correct response.

To kill germs.

Wrong response.

* To avoid germs.
* To prevent diseases.

**NOTE:** The heat involved in boiling water denatures germs hence killing them.

Germs cannot be avoided because we cannot avoid what we can’t see.

1. What are biological changes?

Biological changes are changes which take place in the life of living things.

Wrong response.

Biological changes are changes which take place in living things.

Note: Biological changes continue to occur in the life of living things.

1. Where does conception take place in the woman’s reproductive system?

Correct response.

In the oviduct.

Wrong response.

In the uterus.

Note: Conception occurs immediately after fertilization, that’s why it occurs in the oviduct.

1. State the importance of suckers to a tapeworm.

Correct response

They attach the tapeworm to the walls of small intestines

Wrong response.

Suckers absorb digested food.

Note: Tape worms do not absorb digested food using suckers. They feed by absorbing digested food through the surface of their skin by diffusion

1. What is soil erosion?

Soil erosion is the removal of top soil by its agents.

Wrong response.

Soil erosion is the washing away of top sol; from one place to another by its agents.

Note: The word washing away is not scientific.

1. What is a magnet?

Correct response.

A magnet is a substance which has the ability to attract other magnetic materials.

Or

A magnet is a substance which has the ability to pull or push other magnetic materials.

Wrong response.

A magnet is a piece of metal which has the ability to attract other magnetic substances.

Note: It is wrong to define a magnet as a piece of metal because lodestone and the earth are not metallic.

1. How do legumes improve soil fertility add nitrogen in the soil.

Correct response

Legumes add nitrogen in the soil.

Wrong response.

Legumes add nutrients in the soil.

**Note:** Legumes add nitrogen to the soil which is converted into nitrates to improve soil fertility.

1. What causes pellagra?

Correct response.

Lack of vitamin B3 in one’s

Wrong response.

Lack of vitamin B2  in one’s diet.

Note: Vitamin B2 deficiency does not cause pellagra. It causes swollen throat, blurred vision and depression.

1. State the use of a switch in an electric circuit

Correct response.

Switch completes or breaks a circuit at one’s will.

Wrong response.

Switch completes and break the circuit at one’s will.

Note: Using and means that the switch completes and break the circuit at once.

1. How do tapeworms obtain their food?

Correct response.

By diffusion of digested food through their skins

Wrong response.

By absorbing digested food using suckers.

Note: Tapeworms do not use their suckers to absorb digested food. Digested food is absorbed through their skins by diffusion.

1. What type of change occurs when an egg breaks?

Correct response.

Physical change.

Wrong response.

Chemical change.

Note: When an egg breaks, non-new sub stance is formed.

Also, the physical properties of an egg do not change

1. What is a weed?

Correct response.

A weed is a plant that grows where it is not wanted.

Wrong response.

A weed is an unwanted plant in the garden.

A weed is an unwanted plant

Note: Weeds not only grow in garden.

They also grow in other areas which are not gardens.

1. Name one fungal disease that affects the skin and spread due to poor personal hygiene.

Ringworm.

Wrong response.

* Ring worms.
* Ring worm.

Note: The word is ringwom but not ring worms and it is one word.

1. State two advantages of keeping rabbits.

Correct response.

* Rabbits need less attention.
* Rabbits are cheap to manage.
* Rabbits need a small piece of land.

Wrong response.

* We get meat from rabbits.
* We get fur from rabbits.
* We get droppings from rabbits.
* We get skin from rabbits.
* We sell rabbits to get money.

Note: A question needs the advantage of keeping rabbits not the importance of rabbit keeping

1. How is cattle keeping important to a crop farmer?

A farmer gets droppings from cattle which are used in gardens as manure.

Wrong response.

A farmer gets manure from cattle.

Note: Manure from cattle is obtained after decomposition. So we get droppings from cattle but not manure.

1. How do hookworm’s entre the human body?

Correct response.

* Through bare feet.
* Through walking bare footed.

Wrong response.

* Through bare foot.
* Through walking bare feted.

Note: It is important to mark the correct spelling of the word **bare.** Also we don’t walk bare feeted but bare footed.

1. How do tape worm enter the human body?

Correct response.

* Through eating under cooked meat, pork or fish.

Wrong response.

* Through eating a half cooked meat.
* Through eating half cooked food.
* Through eating un cooked meat.

Note: we should not use the word half because it means part of something when divided into halves

1. What is soil capillarity?

soil capillarity is the ability of the soil to allow water drain through it from bottom layers to top layers.

Wrong response.

Soil capillarity is the ability of the soil to hold water for long.

Note: Clay soil has the highest capillarity because it allows more water to drain through it easily from the bottom to the top.

Sand soil; has the lowest or poorest capillarity because it allows less water to drain through it easily from bottom to top.

1. Mention any three system of keeping poultry.

Correct response.

* Fold system.
* Battery system.
* Free range system
* Deep litter system

Wrong responses.

* Battery cage system
* Fold pen system
* Zero grazing

Note: It is wrong to say fold pen system because fold is another word to mean pen.

It is also wrong to say battery cage system because battery also means cage

1. Give any two breed of cattle kept in Uganda.

Correct responses.

* Friesian
* Jersey
* Here ford
* East African zebu

etc.

Wrong responses.

* Exotic breeds
* Local breeds
* Cross breeds

Note: a breed means a group of animals having specific characteristics and origin so. Exotic breeds, local breeds and cross breeds don’t have specific characteristics and same origin

1. State the functional difference between arteries and veins.

Correct responses.

Arteries carry blood away from the heart while veins carry blood towards the heart.

Wrong responses.

Arteries carry oxygenated blood while veins carry deoxygenated blood

**Note:** Not all arteries carry oxygenated blood ie pulmonary artery carries deoxygenated blood from the heart to the lungs while other arteries carry oxygenated blood.

-Not all veins carry deoxygenated blood ie pulmonary vein carries oxygenated blood from the lungs to the heart.

1. What is the role of a drone bee in the hive.

Correct responses.

A drone bee mates with a queen bee.

Wrong responses.

A drone bee mates and fertilizes a queen bee.

Note: Fertilization only occurs when a nuclei of the sperm and an ovum unite / fuse.

1. State the use of a switch in an electric circuit.

Correct responses.

A switch completes or breaks the circuit at one’s will.

Wrong responses.

A switch completes and breaks the circuit at one’s will.

Note: A switch does not complete or break the circuit at once. This is a reason why and is discouraged.

1. What is soil profile?

Soil profile is the arrangement of soil layers from top to bottom.

Wrong response.

Soil profile is the vertical arrangement of soil layers from top to bottom.

Note: The word vertical means from top to bottom. So having the two words in the answer is repetition.

1. Why breast milk is called a complete food?

Correct response.

Breast milk contains all food values.

Wrong response.

Breast milk contains almost all food values except iron.

Note: Iron lacking in breast milk is not a food value but a food element under mineral salts.

1. How can we prevent kwashiorkor in children?

By feeding children on food rich in proteins.

Wrong response.

By feeding children on proteins.

Note: We don’t directly feed on proteins but on food stuffs rich in proteins.

1. Where in the body does respiration take place.

Correct response.

In living body cells.

Wrong responses.

* In the lungs
* In the body cells.

Note: Lungs are just respiratory organs but not the specific area where respiration takes place.

1. Give any one importance of proteins in the body.

**Correct response**

-proteins repair worn out body tissues.

Wrong response.

Proteins repair worn out body cells.

**Note:** body cells do not wear out but are destroyed

1. Why does a stone sink in water.

Correct response

A stone is denser than water

Wrong response

It is more dense than water.

Note: The word more dense does not exist.

1. In which group of mammals are rabbits and hares.

Correct response.

Lagomorphs

Wrong response.

Rodents / Gnawing mammals.

Note: Rabbits, hares belong to their own group but not under rodents

1. Why is it not advisable to put out petrol fire using water?

Correct response.

Petrol floats on water and fire continues burning.

Wrong response.

Water contains oxygen which supports burning.

Note: Oxygen in water is dissolved so it does not support burning.

1. What is a skeleton?

A skeleton is the supporting structure of the body of an organism.

Or

A skeleton is the structure that supports the body of an organism.

Or

A skeleton is the physical supporting structure of the body of an organism.

Wrong response.

A skeleton is the framework of bones in the body

Note: Not all living organisms have bones inside their bodies. Organisms like earth worms, insects, snails, slugs and squids have hydrostatic skeleton and insects have exoskeleton.

A frame work of bones in the body refers to the human skeleton.

1. Name the fungal sexually Transmitted disease.

Correct response.

Candidiasis

Wrong response.

Candida.

Note: Candida is a group of fungi in the yeast family that causes candidiasis.

1. What are germs?

Germs are tiny living organisms which cause diseases.

Or

Germs are microscopic living organisms which cause diseases.

Wrong response.

Germs are small living organism which cause diseases.

Note: Germs are tiny or microscopic because we can not see them with our naked eyes.

-we can only see germs using a microscope.

1. What is reflection of light?

Correct response,

* Reflection is the bouncing of light rays.
* Wrong response
* Reflection is the bouncing back of light rays.

**Note:** Light does not bounce back to the direction where it came from. It bounces off the reflecting surface and takes another direction.

1. Give any three characteristics of living things.

Correct response.

* Living things reproduce
* They excrete
* They respire
* They move

Wrong response.

* Living things die.
* Living things locomote.

Note: -Death is not a characteristic of living things because it ends life.

Locomotion means displacement from one place to another.

-note all living things move from one place to another e.g. Plants.

1. Identify the method of deworming cattle in which solid medicines are given to cattle.

Correct response.

Dosing

Wrong response.

Dozing

Note: Dozing with letter Z means to fall asleep for a while. So it is wrong to use it.

1. Why is transplanting of seedlings done in the evening?

Correct response.

To prevent wilting of seedlings due to excessive transpiration.

Wrong response.

To reduce the rate of transpiration.

**Note:** Wilting involves drying of a plant as a result of excessive loss of water than it absorbs. Wilting is caused by high rate of transpiration.

1. Why do we cut our finger nails short?

Correct response.

To destroy the hiding places for germs.

Wrong response.

* To remove germs
* To prevent diseases
* To avoid eating germs.

1. Suggest the reason for cutting tall grass short in the compound.

Correct response.

To destroy the hiding places for vectors.

Wrong response.

* To prevent malaria.
* To destroy the hiding places for mosquitoes.

Note: Not only mosquitoes hide in tall grass. Other vectors like tsetse flies also hide there. It is wrong to monopolize mosquitoes.

1. Give any two blood cells.

* Correct response
* Red blood cells.
* White blood.
* Platelets.

Wrong response.

Plasma.

Note: Plasma is just a liquid part of blood.

No cells make up plasma.

-Therefore, plasma is only a component of blood but not a blood cell.

1. Give any one characteristic common to all dicotyledonous seeds.

All dicotyledonous seeds have tap root system

All dicotyledonous seeds have two cotyledons

Wrong response.

* All have network leaf venation
* All dicotyledonous seeds undergo epigeal germination

Note Not all dicotyledonous seeds undergo epigeal germination

For example Peas, and simsim are dicotyledonous seeds but undergo hypogeal germination

Seeds do not have veins therefore no venation

1. What is a fracture?

Correct response.

A fracture is a broken or cracked bone in the body

Wrong response.

A fracture is a broken bone in the body

Note not all bones break. Some crack while others bend eg green stick fracture in young children

45.Mention any two types of poultry

Correct responses.

* Chicken
* Turkeys
* Ducks
* Pigeons
* Doves

etc

Wrong responses.

* Layers
* Broilers
* Dual purpose

Note; Poultry refers to all kinds of domestic birds

Layers, broilers and dual purpose are not types of poultry but types of chicken

A type of chicken means a class of chicken kept for a specific purpose . So different types of chickens are kept for a specific purposes eg,

Layers –For egg production

Broilers –For meat product

Dual-purpose – for both meat and egg production.

46.Why should married couples go together for gonorrhea / syphilis treatment?

Correct response.

To prevent re-infection.

Wrong response.

To prevent them from gonorrhea and syphilis.

47. Identify the biological method of controlling weeds.

Correct response.

Keeping rabbits.

Wrong response.

Keeping cats.

Note: Keeping cats is the biological method of controlling pests but not weeds.

When rabbits are kept, they will feed on weeds hence reducing them.

48. How are gills important to a mushroom?

Correct response.

* Gills produce and store spores.
* Gills produce spores
* Gills store spores
* Wrong response
* Gills store and produce spores.

Note order matters ie gills cannot store what they have not yet produced

49. Name method of preserving food when blocks of ice put in a fresh fish.

Correct response.

* Freezing
* Wrong response
* Refrigeration.

50. How does salting meat preserve it?

Correct response.

* Salt dehydrates moisture from meat.

Wrong responses.

* Salt evaporates moisture from meat.
* Salt removes moisture from meat. (How does it remove moisture?)

51. Name the type of temporary magnet made using electricity.

Correct response

* Electromagnet.
* Wrong response
* Electro magnet.

Note: Electromagnet is one word.

52. How do hook worms affect the circulatory system?

Correct response.

Hook worms suck blood from the body and lead to hook worm anemia.

Note: When hook worms suck blood from the body there is shortage of iron which leads to hook worm anemia.

53. Why does a pen fail to write on the paper where oil has been poured?

Correct response.

-There is less friction between the paper and pen.

- Friction between the paper and the pen is reduced.

Wrong response

There is no friction on the paper.

**Note:** Pouring oil on a paper does not remove friction but reduces it

54. Give a reason why respiration, digestion and photosynthesis are chemical changes through they occur in the life of living things.

Correct responses.

They involve chemical reactions when taking place.

Wrong responses.

They are irreversible.

They form new substances

Note: Digestion involves enzymes and these speed up chemical digestion.

In respiration, oxygen burns food to release energy , carbon dioxide and water vapour. So , burning is a chemical reaction .

During photosynthesis, plants store starch in form of chemical energy.

55. How are arteries able to prevent the back flow of blood in them?

Correct responses.

By transporting blood at a higher pressure.

Wrong responses.

By using valves.

Note: Arteries don’t have valves to prevent the back flow of blood. Valves are found in veins.

56.Which method of making alcohol produces the highest concentrated alcohol ?

Correct responses.

Distillation .

Wrong responses

Distilling.

Note; Distilling is not the method but an activity.

57.Mention any one plant that reproduces by means of spores .

Correct responses.

* Liver worst
* Ferns
* Mosses
* Wrong responses
* Mushrooms

Note: mushrooms reproduce by means of spores but they are not plants because;

* They don’t have chlorophyll
* They don’t make their own food

58. What is the main cause of fainting?

Correct response

Storage of oxygenated blood supply to the brain.

Or

Limited supply of oxygenated blood to the brain

Wrong response.

Lack of oxygen supply to the brain

Note: the brain does not completely lack oxygen but the oxygen there may not be enough

59. what is the importance of wearing a sweater?

Correct response.

A sweater keeps the body warm.

A sweater prevents heat loss from the body.

Wrong responses.

A sweater provides warmth to the body.

Note: A sweater does not provide warmth but prevents heat from escaping from the body.

So it keeps the body warm.

60. What is the importance of a thermos flask in a home?

Correct response.

A thermos flask keeps hot food items hot and cold food items cold.

Wrong responses.

A thermos flask keeps hot things hot and cold things cold.

Note: What are those things kept in the flask?

Are they stones, what are they? So here a learner needs to be specific on what is stored in a thermos flask.

61.State the importance of a vacuum in a thermos flask.

Correct responses.

It prevents heat loss by conduction and convection.

Wrong responses.

It prevents heat loss by radiation.

Note: A vacuum does not conduct heat because it lacks matter.

The vacuum prevents heat loss by conduction because it does not conduct heat because there is no solid.

The vacuum prevents heat loss by convection because there is neither a liquid nor a gas to transmit heat

**N.B**: Heat travels through a vacuum by radiation.

This is because heat transfer by radiation does not need a medium of transmission.

62. What is the main cause of cannibalism among poultry?

Correct responses.

Prolapse

Wrong responses.

Poor feeding.

Over clouding birds in a poultry house.

**Note:** prolapsed is a condition in which a hen’s vent or cloaca is pushed outside its body.

63.Where in the human digestive system does absorption of digested food take place?

Correct answer.

In the ileum.

Wrong answer.

In the small intestines.

Note: The small intestines are made up of two parts ie the upper part called duodenum and the lower part called ileum. So absorption of digested food does not take place in the whole small intestines but specifically in the ileum.

64. Why is BCG vaccine given to babies at birth?

Correct responses.

The baby is born with out maternal immunity against tuberculosis.

Wrong response.

To protect babies from tuberculosis.

Note babies are born with out any natural immunity to resist tuberculosis. Maternal immunity means immunity got from the mother

65. Give a reason why measles vaccine is administered to children at nine months.

Correct response.

Babies are born with maternal immunity against measles which lasts for nine months.

Wrong response.

Babies are protected against measles at birth.

66.Identify the part in the human alimentary canal where absorption of water takes place?

Correct responses

In the colon.

Wrong responses.

In the large intestines.

Note: Large intestines are made up of two parts ie the upper part called colon and the lower part called rectum.

Absorption of water specifically occurs in the colon but not in the whole large intestines.

67.Mention two methods of heat transfer in matter.

Correct responses.

* Conduction
* Convection

Wrong responses.

Radiation

Note: Radiation is the transfer of heat in a vacuum and space. It is not a method of heat transfer in matter.

**N.B**: The above question is different from this below.

Name any two methods of heat transfer.

* Conduction
* Convection
* Radiation

In this question, there isn’t any specification.

It is an open question

68. Why is water called a universal solvent.

Correct responses.

It dissolves almost all solutes.

Wrong responses.

It dissolves all solutes.

Note: water does not all solutes that’s why the word almost is used

69.Why is the handle of a flying pan made of wood?

Correct responses.

To prevent the hands of the user from getting burnt.

Wrong responses.

Wood is a bad conduction of heat.

70.Identify the disorder of the digestive system that results from improper chewing of food.

Correct responses.

Indigestion

Wrong responses.

Choking.

Note: choking is not the disorder of the digestive system. It only affects the respiratory system

71.Why is a sugar cane not referred to as a stem tuber?

Correct response.

A sugar cane stores its food in its upright stem.

Wrong response.

A sugar cane does not its food in its swollen under ground stem.

Note: Sugar canes don’t have swollen under ground stems.

72.Why is a maize grain called a fruit?

Correct response.

A maize grain has two scars.

Wrong response.

A maize grain has one cotyledon.

Note: A maize grain has two scars ie stalk scar and style scar.

73.Give any three characteristics of insect pollinated flowers.

Correct responses

* They have brightly coloured petals.
* They are scented.
* They produce less pollen grains
* They produce nectar.

Wrong response.

Their stigma is longer/taller than the anthers.

Their stigma is never long. What is long is the style but not the stigma.

The anther head is never long what is long is the filament.

**N.B**: It is correct to say insect pollinated flowers have longer styles than filaments.

74. How are scavenger birds important in the environment.

Correct response

They help to clean the environment by feeding on the carrion.

They help to clean the environment by feeding on decaying flesh of dead animals,

Wrong response.

They help to clean the environment by feeding on dead decaying flesh.

Note: Flesh does not die.

75. State the role played by sunlight energy during photosynthesis.

Correct response.

* Sunlight provides plants with energy to carry out photosynthesis.
* Sunlight splits water into hydrogen and oxygen.

Wrong response.

Sunlight helps plants to make their own food.

76.Why is carbon dioxide used in fire extinguisher?

Correct response.

Carbon dioxide does not support burning.

Wrong response

To put out fire.

Note: We use to put out fire if we were asked the importance of carbon dioxide in a fire extinguisher.

77.Mention any two properties of air.

Correct response.

* Air has weight
* Air exerts pressure
* Air occupies pressure
* Air can be compressed

Wrong response

Air moves things.

**Note:** Air moves things is not a property of air. For example.

78. Which property of air is demonstrated by children flying kites?

Correct response

Air exerts pressure

Wrong response

Air moves things.

Note: When flying a kite, pressure is exerted onto it which enables it to fly easily.

79.What is breathing?

Correct response

Breathing is the taking of air in and out of the lungs .

Wrong response

Breathing is the taking of oxygen and out carbon dioxide.

**Note:** During breathing we breathe in all components of air and also breathe out all components of air only that their percentages differ.

We breathe in 21% of oxygen and breathe out 16% of it.

We breathe in 78% nitrogen and breathe out 78% of it.

We breathe in 0.03% of carbon dioxide and breathe out 4% of it.

We breathe in 0.97% of it.

We breathe in less water vapour and breathe out more water vapour

80. What is the difference between the air we breathe in and the air we breathe out?

The air we breathe in contains more oxygen and less carbon dioxide while the air we breathe out contains more carbon dioxide and less oxygen.

Wrong response

The air we breathe in is oxygenated while the air we breathe out is not oxygenated.

81.How do mushroom breathe?

Correct response

Mushrooms breathe through their cells.

Wrong response

Mushrooms breathe through gills.

Note: In a mushroom, gills are used to produce and store spores.

Gills in a mushroom also help to hold up the cap of a mushroom.

82.Write any two primary sex characteristics found in both boys and girls.

Correct responses

Production of gametes.

Enlargement of sexual; organs.

Development of gonads.

Wrong responses.

Sweat glands become more active.

Change in voice.

Growth of hair in armpits and around the public area.

Note: The above wrong responses are secondary sex characteristics but not primary sex characteristics.

83.What is agro forestry?

Correct response

Agro forestry is the growing of crops together with animals a long side rearing animals.

Wrong response

Agro forestry is the growing of crops and rearing of animals on the same piece of land.

Note: Agro forestry is made up of crops, trees and animals. Growing crops and rearing animals on the same piece of land is mixed farming.

84. Name the non-metallic conductor of electricity.

Correct response

Carbon.

Wrong response

Carbon rod.

Note: Carbon rod is a non-metallic conductor of electricity in a dry cell.

85.Identify the component of soil which supports germination of seeds.

Correct response

Water

Wrong response

Air

Note: Air is the component of soil but not all components of air support germination.

Remember air is the mixture of gases.

Water is the component of soil and also support germination of seeds.

How does sun drying preserve cassava?

Correct response

Heat from the sun causes evaporation of moisture from cassava.

Wrong response

Sun drying absorbs moisture from cassava.

Note: It is not sun drying that removes moisture from cassava but heat from the sun.

86.State the importance of red blood cells in the body.

Correct response

Red blood cells transport oxygen to all parts of the body.

Wrong response

Red blood cells transport oxygenated blood to all body parts.

Note: the above response is wrong because blood cannot carry itself

87.Give one reason why lungs are referred to as respiratory organs.

Correct response

Lungs allow oxygen into the body for respiration.

Wrong response

Lungs are used for breathing.

88.How does weeding of a garden control pests?

Correct response

Weeding destroys the hiding places for pests.

Wrong response

Weeding kills pests.

89.How does a caterpillar protect itself?

Correct response

By using its prickly hair.

Wrong response

By using its pricky hair.

Note: mark the spelling of the word prickly but not pricky

90.How does a ventilated pit latrine control the spread of diarrhoeal diseases.

Correct response

It has a screen which traps and kills house flies which spread diarrhoeal diseases.

**Wrong response**

It has a screen.

91. Why is polio vaccine given to babies at birth?

**Correct response**

Babies are born without maternal immunity against polio.

**Wrong response**

To protect babies from polio.

Note: Maternal immunity means immunity a baby acquires from the mother at birth.

92. How is hook worm infestation dangerous to the body?

**Correct response**

Hook worms feed on blood which causes hook worm anaemia.

**Wrong response**

Hook worms feed on one’s blood.

Note: Hook worms cause shortage of blood in the body which results into shortage of iron.

93. Name the disease that results from hook worm infestation.

Correct response

Hook worm anemia

Wrong response

Anemia

94. Identify one sexually transmitted disease that affects the liver.

**Correct response**

Hepatitis B

**Wrong response**

Hepatitis A

Gonorrhea

Note: Hepatitis B can only spread through having unprotected sex with an infected person.

It also spreads when we come into contact with body fluids like semen,blood,vaginal fluids etc.

Gonorrhoea is sexually transmitted but does not affect the liver.

95.How does over cultivation cause soil erosion?

Correct response.

Over cultivation makes soil particles loose.

Wrong response.

Over cultivation leaves the soil bare.

96.To which group of animals is a housefly?

Correct response

Invertebrates.

Wrong response

Arthropods

Insects

Note: The question is asking about a group of animals and animals are divided into vertebrates and invertebrates.

A housefly doesn’t have a back bone so it belongs under invertebrates.

97. What is a joint?

Correct response.

A joint is a place in the body where two are more bones meet.

Wrong response

A joint is a place where two or more bones meet.

**Note:** You need to show where a joint is located.

98. Give any two characteristics common to all mammals.

Correct response.

All mammals have mammary glands.

All mammals have fur on their bodies.

All mammals breast feed their young ones on breast milk

Wrong response

All produce young ones alive.

**Note:** Not all mammals produce young ones a live for example monotremes or egg laying mammals.

The question requires you to consider the specific characteristics common to all mammals

101. Why is a sugar cane not called a stem tuber

**Correct response**

A sugar cane stores its food in its upright stem

**Wrong response**

A sugar cane does not store its food in its swollen underground stem

**Note: A sugar case has an upright stem in which it stores food . Stem tubers have stems that grow underground**

102. What is blood circulation?

**Correct response**

Blood circulation is the continuous movement of blood around the blood

**Wrong response**

Blood circulation is the movements of blood around the blood

**Note: The word continuous is very important in the answer because the movement of blood around the body does not stop so long as the person is still a living thing.**

**Types of blood circulation**

1. **Pulmonary blood circulation**

This is the circulation of blood to and from the lungs

1. **Systemic blood circulation**

This is the circulation of blood from the heart to all other parts of the body

103. Why is a spider not regarded as an insect?

**Correct response**

* A spider has two main body parts while insect has three main body parts
* A spider has four pairs of jointed legs while an insect has three pairs of jointed legs
* A spider breathes through book lungs while an insect breathes through spiracles

**Wrong response**

A spider has two main body parts

A spider has three pairs of jointed legs

A spider has breathes through the book lungs

**Note: This question calls for comparison of the characteristics of a spider and those of an insect**

104 Give one reason why a maize grain is not referred to as a seed

**Correct response**

* A maize grain has two scars while a seed has one scar

**Note: The negative element of not brings in comparison on differences between a seed and a fruit**

105. What type of pollination do paw paws plants under go?

**Correct response**

Cross pollination

**Wrong Response**

Self-pollination

**Note: In paw paw plants, the pistil and the stamen appear on separate plants which results into cross pollination**

**Maize plants also undergo cross pollination**

**Question how do maize plants avoid self-pollination**

The Pistil and the stamen appear on the same plant but mature at different times.

106. What is the main cause of cannibalism?

**Correct response**

Prolapse

**Wrong response**

* Overcrowding od birds in a poultry house
* Too much light tin the poultry house
* Food shortage

Note :**Prolapse is when the birds vent comes out of the birds body**

**107.** What is poultry

**Correct response**

Poultry refers to all kinds of domestic birds

**Wrong response**

Poultry is the rearing of domestic birds

Note: Poultry are domestic birds while poultry keeping means the practice of keeping domestic birds

108. Mention two types of poultry?

**Correct response**

* Chicken
* Ducks
* Turkeys
* Doves
* Pigeons
* Geese
* Guinea fowls

**Wrong response**

* Layers
* Broilers
* Dual purpose

**Note:** The question mainly requires a learner to state types of poultry but not types of chicken.

109. State the importance of arteries in the body

**Correct response**

Arteries carry blood away from the heart

**Wrong response**

Arteries carry oxygenated blood to all parts of the body

**Note: Note all arteries carry oxygenated blood. For example pulmonary artery carries deoxygenated blood from the heart to the lungs**

110. State the importance of veins in the body

**Correct response**

Veins carry blood towards the heart

**Wrong response**

Veins carry deoxygenated blood to all body parts

**Note: Not all veins carry deoxygenated blood. For example pulmonary vein received oxygenated blood from the lungs to the heart**

**111.**  In which state of matter does sound travel fastest ?

**Correct response**

Solids/ solid state

**Wrong response**

Gases/ Gaseous state

**Note : Sound travels fastest in solids because they have closely packed molecules which allow vibration to take place easily**

112. How does a guitar produce sound?

**Correct response**

By vibration of it strings when plucked

**Wrong response**

By plucking its strings

**Note: Missing the word vibration in the answer makes it wrong because sound is only produced when an object vibrates**

113. How is an echo formed?

**Correct response**

When sound waves meet an obstacle or barrier

**Wrong response**

When sound waves are reflected

**Note: Echo is the reflected sound so by using the word reflected means repetition**

115. Why is it not advisable to use sharp piercing objects to clean the ear?

**Correct response**

Sharp piercing objects may cause damage to the **ear drum**

**Wrong response**

Sharp piercing objects may cause damage to **the ear**

**Note: Sharp piercing objects may not cause damage to the whole ear but to a specific part which is the ear drum**

116. Why is it important to wash hands with clean water and sopa before preparing ORS?

**Correct response**

To prevent contamination of Oral Rehydration salts (ORS)

**Wrong response**

To remove germs

To prevent the spread of diarrhoeal diseases

**Note: Hands contain dirt and germs which when not washed away may contaminate ORS.**

117. State the danger of having too much wax in the ear

**Correct response**

Too much wax causes partial deafness

**Wrong response**

Too much was blocks sound waves

**Note : The question needs one to give the exact result of wax accumulating in the ear which is partial deafness?**

118. Which body organ produces insulin?

**Correct response**

Pancreas

**Wrong response**

Liver

**Note: The liver does not produce insulin it only stimulates the pancreas to produce insulin**

Qn How is insulin important in one’s body?

Insulin regulates blood sugars

119. How are windows doors and ventilators important on a house?

**Correct response**

* They help in free circulation of air in the house
* They help in gaseous exchange in the house

**Wrong response**

* They take our stale air
* They let in fresh air

**Note: Windows and doors allow fresh air in the house while ventilators take out stale air . This is called gaseous exchange or circulation of air**

119. How does a vacuum in a thermos flask prevent heat loss?

**Correct response**

By conduction and convection

**Wrong response**

By radiation

**Note: The vacuum is referred to a space without matter or an empty space**

**The vacuum prevents heat loss by conduction because there is no solid to conduct heat and by convection because there is no liquid or gas to help in heat transfer**

120. Give one importance of bacteria in the environment

**Correct response**

Bacteria help in formation of soil by decomposition.

**Wrong response**

Bacteria helps in soil formation by decomposition

**Note: Bacterial is a plural word so by saying bacterial helps, it makes bacterial a singular one.**

**For example Bacterial-Plural**

**Bacterium- Singular**

121. How are gills used in a mushroom?

**Correct response**

Gills produce and stores spores

**Wrong response**

Gills are used for breathing

**Note: Gills that are used for breathing are found in fish and tad poles but gills for a mushroom only produce and store spores**

122. Mention any one condition necessary for the multiplication of bacteria.

**Correct response**

* Moisture
* Food
* Warmth

**Wrong response**

Oxygen

**Note: Oxygen can be a condition necessary for only a certain group of bacteria to multiply but not all kinds of bacteria**

**For example, anaerobic bacteria can respire in the absence of oxygen .**

123. By what process does heat travel through gases?

**Correct response**

By convection

**Wrong response**

By radiation

**Note: Radiation is the movement of heat energy inform of waves through an empty space while convection is the bulk movement of heated molecules of fluids and gases in form of currents**

**124. What type of energy is possess by timber tied on a packed lorry?**

**Correct response**

Potential energy

**Wrong response**

Kinetic energy

**Note: Potential energy is energy possessed by objects at rest while kinetic energy Is the energy possessed by moving objects**

**Timber packed on the lorry possess potential energy**

125. Name the standard units for measuring weight

**Correct response**

Newtons

**Wrong response**

Gram

**Note: Weight like all other forces is measured in Newtons but mass is measured in kilograms though its basic units are grams**

126. Name the non –flowering plant that reproduces by means of spores

**Correct response**

Mosses, ferns, liver worts, Horse tails

**Wrong response**

Mush rooms, puff balls, toad stools

**Note: A plant must have chlorophyll but mushrooms,, puffballs and toad stools lack chlorophyll though they produce by means of spores so they are not plants**

127. How do coniferous plants reproduce?

**Correct response**

By means of seeds

**Wrong response**

By means of spores

**Note: Conifers is a group of non-flowering plants that reproduces by means of seeds stored in cones**

**129.** Name the vertebrate which has a shell

**Correct response**

Tortoise, turtle, terrapin

**Wrong response**

Snail, cowrie, Oyster

**Note:**

**Snails, cowrie and oysters have shells but they don’t have a back bone.**

130. What type of fertilization do birds undergo?

**Correct response**

Internal fertilization

**Wrong response**

External fertilization

**Note: The fusion of nuclei of male and female gametes takes place inside the body of the female animal and this is called internal fertilization**

**However external fertilization takes place outside the body of a female animal eg in amphibians and fish**

**131. Why is a rat called a mammal?**

**Correct response**

A rat has mammary glands

A rat has fur on its body

A rat breast feeds its young ones on breast milk produced by its mammary glands

**Wrong response**

A rat undergoes internal fertilization

A rat is warm blooded

A rat has an endoskeleton

A rat has a back bone

**Note: A question demands of only specific and main characteristics common to only mammals**

132. Write one system use din rearing poultry

**Correct response**

Battery system (cage system)

Fold (pen system)

**Wrong response**

Battery cage system is repetition so we say battery system or pen system

Fold pen system is repletion so we say fold system or pen system

134. Why is DPT vaccine called a triple vaccine

**Correct response**

It is immunised against three childhood immunisable diseases

**Wrong response**

It cures three childhood immunisable diseases

**Note: Vaccines do not cure diseases but they prevent diseases before they attack the human body**

136 How are red blood cells adapted to their function?

**Correct response**

Red blood cells have haemoglobin which enables them to transport oxygen to all body parts

**Wrong response**

Red blood cells transport oxygen to all body parts

**Note: The question requires you to explain how capable are red blood cells in transporting oxygen to all body parts**

137. What are vaccines

**Correct response**

Vaccines are medical substances introduced into the body to cause it produce antibodies against disease causing germs

**Wrong response**

Vaccines are medical substances introduced into the body to fight against diseases causing germs

**Note: vaccines do not fight against diseases causing germs. They induce the body to produce anti bodies that fight against diseases causing germs**

138. Why is BCG given to babies at birth?

**Correct response**

Babies are born without maternal immunity against tuberculosis

**Wrong response**

To prevent them from tuberculosis

**Note:** At birth babies are born with no maternal immunity to protect them from tuberculosis

139. Why are pregnant women given tetanus toxoid vaccine?

**Correct response**

To protect the mother and her unborn baby from tetanus infection

**Wrong response**

To protect the mother from tetanus infection at birth

**Note: Tetanus toxoid vaccine does not protect only the mother, it even protects the unborn baby from getting infected with tetanus at birth.**

140. How does a scorpion reproduce?

**Correct response**

By producing live young ones

**Wrong response**

By laying eggs

**Note: A scorpion reproduces differently from other amphibians which lay eggs .**

**141.** State the importance of bacteria in the environment

**Correct response**

Bacteria help in decomposition of organic matter

Bacteria help in fermentation of alcohol

Bacterial help in fermentation of milk

**Wrong response**

Bacteria help in ripening of fruits

**Note: Ripening of fruits is done by a hormone called ethylene but not bacteria**

142. Identify the germ that causes HIV/AIDS

**Correct response**

Human immunodeficiency virus

**Wrong response**

Human immune virus

**Note: The word immunodeficiency is one word**

143 How are strong sharp curved beaks important to birds of prey

**Correct response**

They help birds of prey to tear flesh

**Wrong response**

They help birds of prey to tear the prey

**Note: The prey is not torn by the strong sharp curved beak but killed and held by strong sharp curved talons**

144 Why are the lungs reffered to as respiratory organs.

**Correct response**

They allow oxygen into the body for respiration

**Wrong response**

Lungs are used for breathing

**Note: The question requires a learner to give the main importance of lungs during respiration**

145. Where does respiration take place?

**Correct response**

In living body cells

**Wrong response**

In lungs

**Note: Lungs are respiratory organs but not areas where respiration takes place**

146. State the importance of chlorophyll during photosynthesis

**Correct response**

Chlorophyll traps sunlight energy

**Wrong response**

Chlorophyll helps plants to make their own food

**Note: The question requires one to explain how chlorophyll helps plants to make their own food**

147. What is breathing?

**Correct response**

Breathing is the taking of air in and out of the lungs

**Wrong response**

Breathing is the breathing of oxygen

**Note: The air we breathe in and out contains all the components of air but not only oxygen**

148. Name the chemical method of controlling mosquitoes

**Correct response**

Powering oil on top of stagnant water

**Wrong response**

Oiling stagnant water

**Note: Water cannot be oiled oils poured**

149 How are prop roots important to a maize grain ?

**Correct response**

Prop roots give extra support to a maize plant

**Wrong response**

Prop roots absorb water and mineral salts from the soil

**Note: Prop roots appear at the flowering stage to give extra support to a plant**

150. Name the addictive drug found in tobacco

**Correct response**

Nicotine

**Wrong response**

Tar

**Note: Nicotine causes addiction by releasing a chemical called dopamine which causes change in a personal mood**

151. How is cattle keeping important to crop farmers

**Correct response**

Cattle provide cow dung which acts as farm yard manure in gardens

**Wrong response**

Cattle provide farmers with manure

**Note: Manure can only be obtained after decomposition**

152. Why is distilled water not safe for drinking

**Correct response**

It does not contain mineral salts

**Wrong response**

It contains germs

**Note: Distillation boils the water which kills germs but also removes the mineral salts whichare essential to human health**

153. Why is the filament in an electric bulb coiled?

**Correct response**

To increase electrical resistance

**Wrong response**

To reduce electric resistance

**Note: The more the number of coils, the greater the resistance and the more the heat produced.**

154. Which form of electricity is stored in the dry cells?

**Correct response**

Chemical energy

**Wrong response**

Electrical energy

**Note: Dry cells store electricity in form of chemical energy**

155. Which from of electricity is produced by dry cells

**Correct response**

Electrical energy

**Wrong response**

Chemical energy

**Note: Dry cells change chemical energy stored in them to electrical energy**

156. State the similarity between a switch and a fuse

**Correct response**

Both break the circuit

**Wrong response**

Both break the circuit in case of high voltage

**Note: The question requires one to specify what is common between the function of a switch and the function of a fuse**

157. Name the static electricity in nature

**Correct response**

Lighting

**Wrong response**

Lightening

**Note: It is important to mark the spelling of words for example the word lightning**

158. Identify the disorder of the respiratory system which involves the blockage of air to the lungs

**Correct response**

Choking

**Wrong response**

Chocking

**Note: It is important to mark the spellings of words for example chocking with letter c and k is wrong**

159 How can marasmus be prevented in young children

**Correct response**

Feeding young children on food rich in carbohydrates

**Wrong response**

Feeding young children on carbohydrates

**Note: We don’t directly feed on carbohydrates but on food stuffs containing carbohydrates**

160. Mention any one agent of soil erosion

**Correct response**

* Flowing water
* Strong wind
* Moving animals

**Wrong response**

* Fast flowing water
* Animals
* Wind

**Note: Fast flowing water is at falls and therefore used to generate hydro electricity**

161. Mention nay two types of magnets

**Correct response**

Natural magnets

Artificial magnets

**Wrong response**

Bar magnets

Horse shoe magnets

**Note: Bar magnets and horse shoes magnets are not types of magnets but examples of artificial permanent magnets**

162. State the importance of brightly coloured petals during pollination

**Correct response**

They attract pollinators/pollinating agents

**Wrong response**

They protect the inner parts of a flower

**Note:** The question requires a learner to answer it giving importance of petals in relation to pollination

163. How does polio affect the skeleton/

**Correct response**

Polio causes paralysis of limbs

**Wrong response**

Polio causes lameness

**Note: The question requires a learner to talk about how polio affects the skeleton not the person suffering from it**

164. Identify one air borne diseases that affects the skeleton

**Correct response**

Tuberculosis of the spine/bones

**Wrong response**

Tuberculosis

**Note: There are two forms of tuberculosis the one that affects the lungs and the other one that affects the back bone. So tuberculosis of the spine affects the skeleton**

165 What is electricity?

**Correct response**

Electricity is the form of energy which involves electric charges

**Wrong response**

Electricity is the form of energy produced by the flow of electrons

**Note: The above definition brings in contradiction between current electricity and static electricity**

**Current electricity is defined as the type of electricity which involves the flow of electrons while static electricity id defined as the type of electricity which does not involve the flow of electrons**

**So the first definition is correct because both current and static electricity have charges.**

**COMMON MISPELT WORDS IN SCIENCE**

|  |  |  |
| --- | --- | --- |
| **S/N** | **WRONG SPELLING** | **CORRECT SPELLING** |
|  | Tape worm | Tapeworm |
|  | Hook worm | Hookworm |
|  | Nector | Nectar |
|  | Habbit | Habit |
|  | Hidding | Hiding |
|  | Hairly | Hairy |
|  | Casuality | Casualty |
|  | Regulary | Regularly |
|  | Waterly | Watery |
|  | Overcrowdness | Over crowdness |
|  | Feaces | Faeces |
|  | Tetenus | Tetanus |
|  | Diptheria | Diphtheria |
|  | Chocking | Choking |
|  | Dysentry | Dysentery |
|  | Rainfall | Rainfall |
|  | Sunlight | Sunlight |
|  | Luke warm | Lukewarm |
|  | Electro magnet | Electromagnet |
|  | Carbondioxide | Carbon dioxide |
|  | Endo skeleton | Endoskeleton |
|  | Exo skeleton | Exoskeleton |
|  | Radical | Radical |
|  | Verticle | Vertical |
|  | Backbone | Backbone |
|  | Ring worm | Ringworm |
|  | Toad pole | Tadpole |
|  | Feather picking | Feather pecking |
|  | Diaphram | Diaphragm |
|  | Fillament | Filament |
|  | Prunning | Pruning |
|  | Incissor tooth | Incisor tooth |
|  | Bubonic plaque | Bubonic plague |
|  | Dental carries | Dental caries |
|  | Twinning | Twining |
|  | Cleanless | Cleanliness |
|  | Teracing | Terracing |
|  | Vaccum | Vacuum |
|  | Difussion | Diffusion |
|  | Transmition | Transmission |
|  | Hydro electricity | Hydroelectricity |
|  | Venacava | Vena cava |
|  | Carbonmonoxide | Carbon monoxide |
|  | Evapouration | Evaporation |
|  | Copiccing | Coppicing |
|  | Weavils | Weevils |
|  | Ovacado | Avocado |
|  | Bitting | Biting |
|  | Sunshine | Sunshine |
|  | Syphillis | Syphilis |
|  | Condersation | Condensation |
|  | Drought cattle | Draught cattle |
|  | Diary cattle | Dairy cattle |
|  | Fresian | Friesian |
|  | Rabbitary | Rabbitry |
|  | Illeum | Ileum |
|  | Mo hair | Mohair |
|  | Ear cancer | Ear canker |
|  | Sunction pads | Suction pads |
|  | Auxillary bud | Axillary bud |
|  | Abstainance | Abstinence |
|  | Hydro static skeleton | Hydrostatic skeleton |
|  | Endo sperm | Endosperm |
|  | Angola rabbit | Angora rabbit |
|  | Turbid sponging | Tepid sponging |
|  | Angola goat | Angora goat |
|  | Halters | Halterers |
|  | Penecillin | Penicillin |
|  | Egg York | Egg Yolk |
|  | Umblical cord | Umbilical cord |
|  | Binary fusion | Binary fission |
|  | Earth worm | Earthworm |
|  | Up thrust | Upthrust |
|  | Battry | Battery |
|  | Bore hole | Borehole |
|  | Filteration | Filtration |
|  | Toad stool | Toadstool |
|  | Water proof | Waterproof |
|  | Grass hoppers | Grasshoppers |
|  | Dumpness | Dampness |
|  | Farm yard manure | Farmyard manure |
|  | Its self | Itself |
|  | Adoloscence | Adolescence |
|  | Rainny | Rainy |
|  | Ear drum | Eardrum |
|  | Sannen | Saanen |
|  | Cornifers | Conifers |
|  | Distilate | Distillate |
|  | Distilation | Distillation |
|  | Plumonary artery | Pulmonary artery |
|  | Un wanted | Unwanted |
|  | Candida | Candidiasis |
|  | Onchoncherca volvulus | Onchocerca volvulus |
|  | Back flow | Backflow |
|  | Bilharzia | Bilharziasis |
|  | Peristalisis | Peristalsis |
|  | Appendicytis | Appendicitis |
|  | Running nose | Runny nose |
|  | Meteology | Meteorology |
|  | Tetharing | Tethering |
|  | Wind lass | Windlass |

**METHODS OF CATCHING UP WITH SPELLINGS OF SCIENTIFIC WORDS**

**PNEUMONIA**

P – Peter

N- Never

E- Entered

U- Umonia

**COMMONLY ABUSED DRUGS**

T - Tobacco

A - Alcohol

M - Miraa

M - Miraa

A - Alcohol

T - Tobacco

**Types pf teeth**

**I can play Matatu**

I - Incisor

C - Canine

P - Premolar

M - Molar

**Tick Borne Diseases**

H - Heart water

E - East Coast fever

A - Anaplasmosis

R - Red water

**Colours of the rainbow**

**ROYGBIV**

R - Richard

O - Okello

Y - Your

G - Girl

B - Betty

I - Is

V - Vomiting

**Components of blood**

Why people plant rice

W - White blood cells

P - Plasma

P - Platelets

R - Red Blood cells

**3 Small bones in the ear**

M - Melleus H - Hammer

I - Incus OR A - Anvil

S - Stapes S - Stirrup

**First Aid for sprains and strains**

R - Rest

I - Ice

C - Compression

E - Elevation

**Conditions needed for seed germination**

W - Warmth

O - Oxygen

M - Moisture

**Types of fracture**

Cosma - Compound fracture

Gave - Green stick fracture

Simon - Simple fracture

Cassava - Comminuted fracture

**Sets for teeth**

P - Permanent teeth

M - Milk teeth

**OR**

M - Milk teeth

P - Permanent teeth

**LOVE SCIENCE, PASS SCIENCE**

**Prepared by**

**TR. BYARUHANAGA STEPHEN**

**H.O.D SCIENCE**

**KATABARWA MEMORIAL PRIMARY SCHOOL**