

THE SPARK PUBLISHERS
SCIENCE DOCTOR
Tel 0775719841/ 0755322865

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

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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 Bagowa 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.

2. 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.

3. 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.

4. 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.

5. 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

7. 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 soil; from one place to another by its agents.

Note: The word washing away is not scientific.

8. 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.

9. 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.

10. 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 riboflavin, swollen throat, blurred vision and depression.

11. 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.

12. 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.

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

Correct response.

Physical change.

Wrong response.

Chemical change.

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

Also, the physical properties of an egg do not change

14. 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.

15. 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 ringworm but not ring worms and it is one word.

16. 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

17. 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.

18. How do hookworm's enter the human body?

Correct response.

- Through penetration into bare feet.
- Through walking bare footed.

Wrong response.

- Through bare foot.
- Through walking bare footed.

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

19. How do tapeworm 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

20. 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.

21. 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

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

Correct responses.

- Friesian
- Jersey
- Hereford
- 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

23. 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.

24. 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.

25. 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.

26. 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.

27. 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.

28. 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.

29. 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.

30. 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

31. 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.

32. 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

33. 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.

34. 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 framework of bones in the body refers to the human skeleton.

35. 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.

36. What are germs?

Germs are tiny living organisms which cause diseases.

Or

Germs are microscopic living organisms which cause diseases.

Wrong response.

Germ is a small living organism which causes diseases.

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

-we can only see germs using a microscope.

37. 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.

38. 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.

39. 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.

40. 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.

41. 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.

42. 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.

43. 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.

44. 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 dicotyledonous seeds undergo epigeal germination
- All dicotyledonous seeds have parallel leaf venation

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

45. 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 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 tre

atment?

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. Valv

es 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.

- ✓ Liverwort
- ✓ 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 crowding 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 frying 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 mushrooms 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 along 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 prickly 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 in 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 or 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 alive 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 cane 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 body

Wrong response

Blood circulation is the movements of blood around the body

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

(a) Pulmonary blood circulation

This is the circulation of blood to and from the lungs

(b) 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 of birds in a poultry house
- Too much light in the poultry house
- Food shortage

Note : Prolapse is when the bird's vent comes out of the bird's 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 b

ut 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 its 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 soap 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 wax 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 out 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 store spores

Wrong response

Gills are used for breathing

Note: Gills that are used for breathing are found in fish and tadpoles 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 in form 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 possessed 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 possesses 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 in 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 antibodies 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

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 referred 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 which are 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 form 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

Lightning

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 any 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 is 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
	Casualty	Casualty
	Regularly	Regularly
	Waterly	Watery

Overcrowdness	Over crowdness
Feaces	Faeces
Tetenus	Tetanus
Diphtheria	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
	Peristalsis	Peristalsis
	Appendicitis	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- Rd Bl

3 Small bones in the ear

M - Malleus

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

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- 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