SCIENCE AND TECHNOLOGY

QUESTIONS AND MODEL ANSWERS

FOR

STANDARD 5, 6, 7 AND 8

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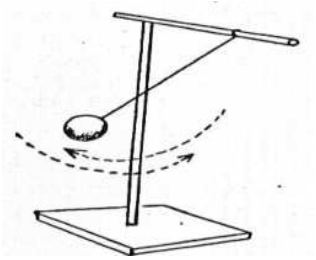
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BY ZIKOMO MASESE BANDA

STANDARD 5 SCIENCE AND TECHNOLOGY

1. What is science?
   - ✓ Science is a study of universe and the planets
2. Define technology
   - ✓ Technology is the use of scientific knowledge and equipment in order to solve everyday problems
3. What is investigation?
   - ✓ Investigation is the way of getting information and knowledge
4. Describe the term "scientific investigation"
   - ✓ Scientific investigation is a process in which a scientist designs and carries out an experiment to obtain information
5. Give any four importance of scientific investigation
   - ✓ Acquiring scientific skills
   - ✓ Discovering scientific concepts
   - ✓ Helping to apply scientific knowledge
   - ✓ Developing an attitude of finding out a solution to a problem

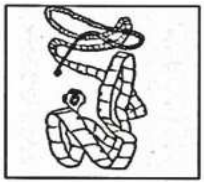
Study the figure below and answer questions 6 and 7



6. What is the name of the figure above?
   - ✓ A simple pendulum
7. Give two factors that affect the rate of the figure.
   - ✓ Mass of object used
   - ✓ Force applied
8. Define data interpretation
   - ✓ Data interpretation means to say what the data collected shows or says
9. Define prediction
   - ✓ Prediction means a reasonable guess of what is likely to happen
10. What is a parasite?
    - ✓ A parasite is an organism that lives and feeds on other living things
11. Give any three examples of parasites
    - ✓ Roundworms
    - ✓ Hookworms
    - ✓ Tapeworms

12. Give three stages of development of roundworms
    - ✓ Eggs
    - ✓ Embryos
    - ✓ Young worms
13. Give any four signs and symptoms of tapeworm infections
    - ✓ Nausea
    - ✓ Vomiting
    - ✓ Stomach discomfort
    - ✓ Body weakness
    - ✓ Swollen belly
    - ✓ Fever
    - ✓ Obstruction of the intestines
    - ✓ Loss of appetite
    - ✓ Presence of eggs in faeces
14. Give any three ways of protecting from worm infections
    - ✓ Boiling water to avoid worms
    - ✓ Not walking bare footed
    - ✓ Proper disposal of urine and excreta
15. Give any four causes of worm infections
    - ✓ Partially cooked meat of cattle, sheep or pig
    - ✓ Improper washed fruits or vegetables
    - ✓ Walking bare footed
    - ✓ Eating food without washing hands
16. Where does a worm live and develop in the body of an animal?
    - ✓ In the intestine

The figure below is a diagram showing a type of worms. Use it to answer questions 17 and 20.



17. What is the name of the worm?
    - ✓ Tapeworm
18. Give any two symptoms of infection by the worm
    - ✓ Pain in the stomach
    - ✓ Obstruction of intestines by large tapeworms
    - ✓ Diarrhoea
19. Give any two signs of infection by the worm
    - ✓ Patient looks pale
    - ✓ Segments in faeces
    - ✓ Loss of weight

20. How can the infection of the worm be prevented and controlled? Give any two ways
    - ✓ Cooking meat and fish thoroughly
    - ✓ Using the toilet always
    - ✓ Seeking treatment from the hospital
    - ✓ Proper inspection of meat should be done
    - ✓ People should follow rules of hygiene in the home
    - ✓ Livestock should be given anti-worm drugs properly
21. What is food?
    - ✓ Food is anything which when eaten or drunk provides the body with nutrients for it to function properly
22. Define the term 'health'
    - ✓ Health is the status of the body being able to function properly
23. What are the main functions of food?
    - ✓ Providing the body with energy
    - ✓ Protecting the body
    - ✓ Building and repairing the body
24. Give the six food groups
    - ✓ Vegetables
    - ✓ Fruit
    - ✓ Legumes and nuts
    - ✓ Food from animals
    - ✓ Fats
    - ✓ Staples
25. Give any two good food habits
    - ✓ Lack of variety in one's food choice
    - ✓ Serving the best food portions to adults
    - ✓ Eating from one plate with small children
    - ✓ Feeding infants and young children on gravy only instead of meaty parts
    - ✓ Introducing porridge to young babies as early as the first month after birth
    - ✓ Believing that maize is the only staple food that can be served during the meals
    - ✓ Adding a lot of fat or oil in food when cooking
    - ✓ Eating only one meal a day
26. Explain any two importance of eating a variety of foods
    - ✓ The body functions properly
    - ✓ Living healthy and productive lives
    - ✓ The body acquires necessary nutrients from a variety of foods
27. Give any two good food habits
    - ✓ Eating a variety of foods in meals
    - ✓ Cooking food using a variety of methods
    - ✓ Serving the best portions of food to vulnerable groups

- ✓ Breast feeding babies exclusively during the first six months
- ✓ Eating three meals a day
- ✓ Serving the right quantities of food to each family member
- ✓ Eating food in separate dishes

28. Give any three examples of food taboos and beliefs
    - ✓ A baby should not be given its mother's milk if the mother spends night away from the child
    - ✓ A pregnant woman should not eat tomatoes because she will bear a child with skin rashes
    - ✓ A pregnant woman should not eat sugarcane because the child will have a powdery skin like sugarcane
    - ✓ Boys should not eat ground beans because they will be shot at the battle field
    - ✓ Children do not eat eggs because they will have stomach problems
    - ✓ A pregnant woman should not eat eggs because she will bear a child without hair
29. Explain any two effects of food taboos and beliefs.
    - ✓ A mother may give birth to a weak baby
    - ✓ Malnutrition results in young children and pregnant mothers
    - ✓ There is a stunted growth of young children
    - ✓ There is a low productivity in everyday activities
30. List any four nutrients which can be obtained from food groups
    - ✓ Proteins
    - ✓ Carbohydrates
    - ✓ Fats
    - ✓ Vitamins
    - ✓ Minerals
    - ✓ Water
31. Define the term "technology"
    - ✓ Technology is the use of scientific knowledge and equipment in order to solve problems in everyday life
32. What are indigenous technologies?
    - ✓ Indigenous technologies are technologies which are locally developed.
33. List any five examples of indigenous technologies
    - ✓ Catapult
    - ✓ Canoe
    - ✓ Fish traps
    - ✓ Adze
    - ✓ Charcoal stove
    - ✓ Mortar and pestle
    - ✓ Winnower
    - ✓ Grinding stone
    - ✓ Bow and arrow

- ✓ Mud stove
- ✓ Mat
- ✓ Chikwatu
- ✓ Nkhokwe
- ✓ Hunting club

34. Explain how the following technologies work
    i. Catapult
    - ✓ Catapult is used for hunting birds
    ii. A hoe
    - ✓ A hoe is used for ploughing
    iii. Mortar and pestle
    - ✓ Mortar and pestle are used for shelling maize and rice
    iv. Bow and arrow
    - ✓ Bow and arrow are used for hunting animals
35. What is the main drawback of indigenous technologies?
    - ✓ They may not be as efficient in doing their work
36. What is the solution of inefficiency of indigenous technologies
    - ✓ By improving them
37. Explain any three importance of improving the indigenous technologies
    - ✓ To make them work easier
    - ✓ To make them do the intended work much faster
    - ✓ To look better or attraction for marketing
38. Give any four uses of the indigenous technologies
    - ✓ For processing food
    - ✓ For food preservation
    - ✓ For separation of mixtures
    - ✓ For water purification
    - ✓ For hunting
    - ✓ For cooking
    - ✓ For loading logs in a lorry
    - ✓ For sawing timber
    - ✓ For shelling maize
    - ✓ For construction
39. Describe the scientific principle applied in a catapult
    - ✓ When a catapult is pulled and released, the energy in the rubber band throws the stone away
40. Explain the importance of improving a technology
    - ✓ Helps to make work easier

41. Explain the improvements that can be done to:
    i. Bow
    - ✓ A bow that is made of sisal string can be improved by using strong string made of animal skin

    ii. An arrow
    - ✓ An arrow that is made of reed can be improved by using a piece of bamboo fitted with feathers at the tail for stability when it is released

    iii. A pestle
    - ✓ A whole pestle can be improved by carving the middle part for easy grip and handling

42. Mention any three technologies that are used to solve problems in our communities
    - ✓ Winnower
    - ✓ Granary
    - ✓ Chikwatu
    - ✓ Mphero

43. What problems is each of the following technologies designed to solve?
    i. Winnower
    - ✓ To remove husks from the grain

    ii. Mphero
    - ✓ To grind food into fine particles

    iii. Granary
    - ✓ To solve the problem of food storage

44. Give any two scientific and technological contributions
    - ✓ People drink clean water
    - ✓ People get high yields from improved varieties of crops and livestock
    - ✓ Work is made easier
    - ✓ Communication has become easier
    - ✓ The average life span has increased
    - ✓ Quality of people's lives has improved

The figure below is a diagram showing a technology. Use it to answer questions 45 and 46



45. Identify the technology above
    - ✓ Bicycle

46. Give any two problems of the technology
    - ✓ Can carry limited luggage
    - ✓ Can carry limited number of people

47. Identify any three situations or problems in need of technological solutions in daily life
    - ✓ Transport

- ✓ Farming
- ✓ Processing food
- ✓ Food preservation
- ✓ Health
- ✓ Energy
- ✓ Hygiene
- ✓ Sanitation
- ✓ Hunting
- ✓ Construction
- ✓ Entertainment
- ✓ Communication

48. What is marketing?
    - ✓ Marketing is the process of the selling right goods to the right customers, at the right time, right place and right price

49. Explain any four problems of marketing
    - ✓ Lack of direct access to buyers
    - ✓ Stiff competition
    - ✓ Unreliable suppliers
    - ✓ Lack of knowledge of advertising
    - ✓ Harsh weather conditions
    - ✓ Poor economic environment
    - ✓ Cultural environment
    - ✓ Lack of customer care
    - ✓ Bad roads
    - ✓ Lack of storage facilities
    - ✓ High price of commodities
    - ✓ High transport costs
    - ✓ Long distances to the markets
    - ✓ Lack of transport

50. Suggest solutions to the problem of lack of customer care
    - ✓ Being good and attending to all customers promptly

51. Write down any four technologies that are used for sending or receiving messages
    - ✓ Drums
    - ✓ Whistles
    - ✓ Computers
    - ✓ Television sets
    - ✓ Fax machines
    - ✓ Cell phones
    - ✓ Telephone
    - ✓ Radio

52. Explain how the following technologies are used for sending or receiving messages
    a. a drum
        - by beating
    b. a computer
        - by writing messages
    c. a cellphone
        - by speaking and listening
53. What is the difference between coding and decoding a message?
    - ✓ Coding means sending a message using appropriate language while decoding means interpreting a coded message
54. Define walkie – talkie
    - ✓ It is a small portable radio transmitter and receiver used by a police officer
55. What is meant by the term "classification"?
    - ✓ Classification is the grouping of things according to their similarities and differences
56. Give the meaning of the following terms;
    a. Vertebrates
        - ✓ Vertebrates are animals with a backbone
    b. Invertebrates
        - ✓ Invertebrates are animals without a backbone
57. Explain the meaning of the following terms;
    a. Carnivores
        - ✓ Carnivores are animals that eat other animals
    b. Herbivores
        - ✓ Herbivores are animals that eat plants only
    c. Omnivores
        - ✓ Omnivores are animals that eat both plants and animals
58. Give any two examples of each of the following;
    a. Carnivores
        - ✓ Hyena
        - ✓ Lion
        - ✓ Leopard
        - ✓ Tiger
        - ✓ Crocodile
    b. Omnivores
        - ✓ People
        - ✓ Chicken
        - ✓ Dog
        - ✓ Cat
        - ✓ Monkey

c. Herbivores
   - ✓ Goat
   - ✓ Cattle
   - ✓ Hippopotamus
   - ✓ Donkey
   - ✓ Sheep
   - ✓ Hare
   - ✓ Buffalo

59. Give any four examples of the following;
    a. Vertebrates
       - ✓ Goat
       - ✓ A person
       - ✓ Lion
       - ✓ Chicken
    b. Invertebrates
       - ✓ A snail
       - ✓ A worm
       - ✓ A cockroach
       - ✓ A millipede
60. Classify the following animals into vertebrates and invertebrates: snake, mouse, rabbit, cockroach, spider, dog, cat, earthworm, lizard and butterfly
    - ✓ Vertebrates: snake, mouse, rabbit, dog, lizard, cat
    - ✓ Invertebrates: earthworm, butterfly, cockroach, spider
61. What is energy?
    - ✓ Energy is the ability to do work
62. Give any four types of energy
    - ✓ Light energy
    - ✓ Heat energy
    - ✓ Sound energy
    - ✓ Chemical energy
    - ✓ Electric energy
    - ✓ Kinetic energy
    - ✓ Potential energy
63. Give any two ways of producing the following types of energy
    a. Light
       - ✓ Lighting a candle
       - ✓ Connecting a bulb, battery and connecting wire
    b. Heat
       - ✓ Lighting fire
       - ✓ Rubbing hands together

c. Sound
   - ✓ Blowing a whistle
   - ✓ Beating a drum
   - ✓ Clapping hands

64. Give any two uses of the following types of energy
   a. Light
      - ✓ Lighting
      - ✓ Warming ourselves
      - ✓ Seeing
      - ✓ Photography
      - ✓ Photosynthesis
   b. Heat
      - ✓ Ironing clothes
      - ✓ Heating
   c. Sound
      - ✓ Entertainment
      - ✓ Warning
      - ✓ Passing a message
      - ✓ Communication
      - ✓ Producing sound
   d. Chemical
      - ✓ Moving objects
      - ✓ Source of heat energy
      - ✓ Source of electrical energy

65. What two activities can one do to produce heat energy?
   - ✓ Rubbing hands or objects against each other
   - ✓ Bending a piece of wire several times

66. What are marketing technologies?
   - ✓ Marketing technologies are devices that are used to make marketing easier

   or

   - ✓ Marketing technologies are certain technologies used to increase production and sales

67. Give any four examples of marketing technologies
   - ✓ Radios
   - ✓ Computers
   - ✓ Ox-carts
   - ✓ Newspapers

68. Give any two importance of marketing technologies
   - ✓ They promote sales
   - ✓ They increase the number of customers and profits

69. Explain how ox-carts would be used to increase profit in a business. Give two ways
    - ✓ By transporting more goods to the market
    - ✓ By cutting on transport costs
70. What is environment?
    - ✓ Environment is anything around us
71. Define food chain
    - ✓ Food chain is a food relationship between plants and animals
72. What would happen if there were no green plants in the food chain?
    - ✓ There would be no animal life
73. What would happen to the chicken if there were no grasshoppers?
    - ✓ The chicken would die if it only depended on grasshoppers for food
74. How do plants obtain their food?
    - ✓ They manufacture their own food using light and carbon dioxide
75. What is the importance of the presence of plants and animals in the environment?
    - ✓ It helps to maintain a balance in the environment
76. Which part of the plants is mostly eaten up by animals?
    - ✓ Leaves
77. Construct a food chain for the following living things: birds, green grass, people and grasshopper
    - ✓ Green grass $\longrightarrow$ grasshopper $\longrightarrow$ birds $\longrightarrow$ people
78. Define the term malnutrition
    - ✓ Malnutrition is a condition in which there is a lack or excess of certain nutrients in the body
79. What is a nutrient?
    - ✓ A nutrient is a chemical substance found in food
80. Explain the term health
    - ✓ Health means the state of the body being able to function properly
81. Describe the meaning of the term 'nutrition'
    - ✓ Nutrition is the process of providing the body with necessary substances for it to stay healthy
82. Give any four main food nutrients
    - ✓ Carbohydrates
    - ✓ Proteins
    - ✓ Fats and oils
    - ✓ Vitamins
    - ✓ Minerals
    - ✓ Water
83. Explain the importance of nutrition in the body
    - ✓ Nutrition leads to good health
84. Describe the relationship between nutrition and health
    - ✓ Good nutrition leads to good health

85. Define malnutrition
    - ✓ Malnutrition refers to a condition caused by lack or excess of certain essential nutrients in the body.
86. Explain the following terms:
    (a) under-nutrition
    - ✓ Lack of essential nutrients in the body

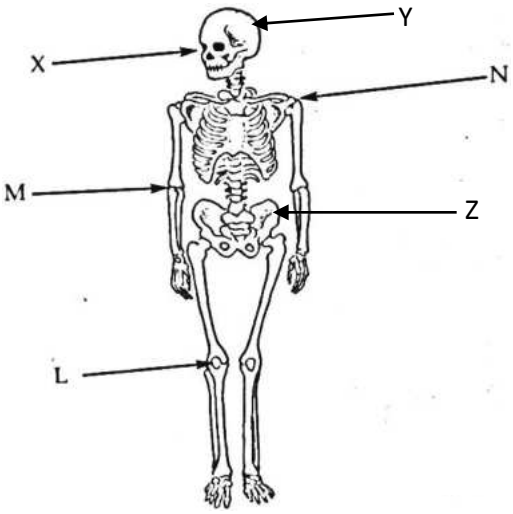
    (b) over-nutrition
    - ✓ Excess of certain nutrients in the body
87. Give any two functions of proteins
    - ✓ Promote growth
    - ✓ Repair worn-out body tissues
88. Name any two food sources for Vitamin D
    - ✓ Sunshine
    - ✓ Oily fish
    - ✓ Margarine
    - ✓ Butter
    - ✓ Eggs
    - ✓ Milk
    - ✓ cheese
89. Explain the effects of taking inadequate nutrients
    - ✓ Suppression of growth and development
    - ✓ Incidences of deficiency diseases
    - ✓ Low productivity in everyday activities
    - ✓ Loss of life
    - ✓ Difficulty treating some diseases
90. What are the effects of excess intake of proteins?
    - ✓ Gout
    - ✓ Obesity
    - ✓ Heart failure
    - ✓ Kidney failure
91. Give one effect of excess intake of carbohydrates and fats
    - ✓ Causes obesity

STANDARD 6 SCIENCE AND TECHNOLOGY

1. Define investigation
   - ✓ Investigation means the process of getting information or knowledge
2. What is scientific investigation?
   - ✓ Scientific investigation is the process whereby scientists carry out an experiment in order to obtain knowledge
3. Outline the steps to follow to carry out a scientific investigation
   - ✓ Knowing the problem
   - ✓ Making a prediction
   - ✓ Planning the investigation
   - ✓ Carrying out the investigation
   - ✓ Making meaning of the results
   - ✓ Making conclusions
4. List down three main steps in scientific investigation
   - ✓ Planning stage
   - ✓ Implementation stage
   - ✓ Concluding stage
5. The predicted answer is called
   - ✓ A hypothesis
6. Define a variable
   - ✓ A variable is anything that can change
7. Define a skeleton
   - ✓ A skeleton means hard part of the body
8. Give two functions of a skeleton
   - ✓ It gives support to the body
   - ✓ It protects the delicate parts of the body
   - ✓ It assists in movement
   - ✓ It gives shape to the body
9. Mention any two types of joints
   - ✓ Movable joints
   - ✓ Immovable joints
   - ✓ Hinge joints
   - ✓ Ball and socket joints
   - ✓ Gliding joints
10. What name is give to the joints that do not allow movement?
    - ✓ Immovable joints
11. Give any two examples of joints
    - ✓ Skull
    - ✓ Finger
    - ✓ Shoulder

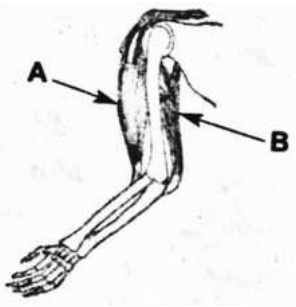
- ✓ Elbow
- ✓ Hip
- ✓ Wrist

Study the illustration below and answer questions 12 and 13



12. Name the parts labelled X, Y and Z
    - ✓ X = eye socket (orbit)
    - ✓ Y = skull
    - ✓ Z = pelvis (hip bone)
13. Name the joints labelled L, M and N
    - ✓ L = hinge joint
    - ✓ M = hinge joint
    - ✓ N = ball and socket joint
14. Name the muscles which are responsible for causing the arm to bend
    - ✓ Biceps muscles
15. Name the tissue which attaches muscles to bones
    - ✓ Tendons

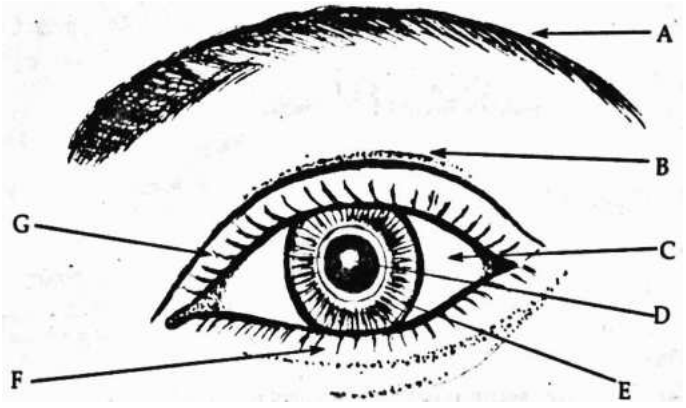
Study the illustration below and answer question 16 and 17



16. Name the parts labelled **A** and **B**
    - ✓ A = biceps muscle
    - ✓ B = triceps muscle

17. Explain how part B enables movement
    - ✓ When triceps muscle contracts, the bones of the lower arm are pulled and the arm stretches
18. Mention five human sense organs
    - ✓ Nose
    - ✓ Tongue
    - ✓ Skin
    - ✓ Eye
    - ✓ Ear
19. Explain why sense organs are important
    - ✓ They help a person to smell, taste, feel, touch or see
20. What is the function of the hair in the nose?
    - ✓ It helps to prevent dust and germs from getting into the body
21. Give any two parts of the nose
    - ✓ Ala
    - ✓ Nostril
    - ✓ Root of nose
    - ✓ Dorsum of nose
    - ✓ Tip of nose
    - ✓ Nose septum
22. Give any three problems of the nose
    - ✓ Colds and flu
    - ✓ Nose bleeding
    - ✓ Sores
    - ✓ Foreign bodies
23. List two ways of caring for the nose
    - ✓ Cleaning regularly
    - ✓ Avoiding sniffing unknown substances
    - ✓ Avoiding foreign bodies from getting into the nose

The illustration below shows external parts of the eye. Study it and answer questions 24 and 25

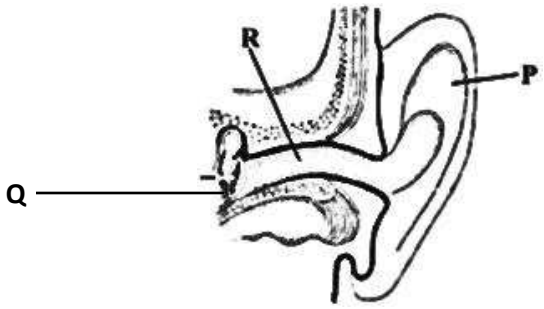


24. Name the parts labelled A, B, C, D, E, F and G
    - ✓ A = eyebrow

- ✓ B = upper eyelid
- ✓ C = white eye (sclera)
- ✓ D = pupil
- ✓ E = iris
- ✓ F = lower eyelid
- ✓ G = eye lashes

25. What is the function of the part labelled D?
    - ✓ It allows light to get into the eye to see things
26. State any two problems of the skin
    - ✓ Skin infections
    - ✓ Cancer of the skin
    - ✓ Pimples or acne
27. Explain any two ways of caring for the skin
    - ✓ Bathing regularly
    - ✓ Avoiding using other people's materials
    - ✓ Protecting the skin against harsh weather conditions

The figure below is a diagram of the human ear. Use it to answer questions 28 and 29



28. Name the parts labelled P, Q and R
    - ✓ P = ear lobe (pinna)
    - ✓ Q = ear drum
    - ✓ R = ear canal (auditory canal)
29. State the function of part labelled P
    - ✓ It directs sound into the ear canal
30. State any two ways of caring for the ear
    - ✓ Avoiding removing a foreign body from the ear with a pointed object that can damage the eardrum.
    - ✓ Avoiding loud sounds
    - ✓ Using a wet cloth to clean the outer ear
    - ✓ Avoiding using sharp objects to poke the ear
31. List any two accidents in the homes and communities
    - ✓ Cuts
    - ✓ Burns
    - ✓ Scalds

- ✓ Nose bleeding
- ✓ Suffocation
- ✓ Choking
- ✓ Poisoning
- ✓ Road accidents
- ✓ Drowning

32. State any two causes of common accidents
    - ✓ Not properly using sharp objects
    - ✓ Hazardous chemicals
    - ✓ Food entering the wind pipe
    - ✓ Falling in deep water bodies
    - ✓ Dry heat
33. What is first aid?
    - ✓ First aid is a first help given to an injured person before he or she is taken to hospital
34. Why is first aid important?
    - ✓ It helps to save life
    - ✓ It helps to prevent worse condition
35. List two ways of stopping nose bleeding
    - ✓ Sitting quietly
    - ✓ Pinching the nose firmly
    - ✓ Putting cold cloth on the forehead
    - ✓ Bending the person's head
36. Why is first aid treatment for nose bleeding important?
    - ✓ It helps to prevent loss of blood
37. Define chocking
    - ✓ Choking is blocking of the wind pipe
38. Describe the meaning of the term 'nutritional deficiency diseases'
    - ✓ Nutritional deficiency diseases are diseases which result from lack of food nutrients in the diet
39. Mention any two examples of nutritional deficiency diseases
    - ✓ Kwashiorkor
    - ✓ Marasmus
    - ✓ Rickets
    - ✓ Night blindness
40. What is the main cause of kwashiorkor?
    - ✓ Lack of protein in the diet
41. What is the main cause of marasmus?
    - ✓ Lack of carbohydrates in the diet
42. Define the term preservation
    - ✓ Preservation is the process of keeping food free from decay

43. Give types of food preservation technologies
    - ✓ Indigenous food preservation technologies
    - ✓ Modern food preservation technologies
44. What causes food decay?
    - ✓ Micro-organisms
45. Mention the three types of micro-organisms that cause food spoilage or decay
    - ✓ Bacteria
    - ✓ Yeasts
    - ✓ Moulds
46. Mention any three foods that can be preserved
    - ✓ Meat
    - ✓ Fish
    - ✓ Vegetables
47. Why is food preservation important?
    - ✓ Reducing bulkiness for easy carrying and storage
    - ✓ Avoiding wastage
    - ✓ Adding variety to the diet
    - ✓ Improving the flavour, colour and texture of food
    - ✓ Keeping food longer for future use
48. Mention three indigenous food preservation technologies
    - ✓ Drying
    - ✓ Smoking
    - ✓ Salting
49. Mention three modern food preservation technologies
    - ✓ Freezing
    - ✓ Canning
    - ✓ Bottling
    - ✓ Jam making
50. Describe any three problems of food preservation
    - ✓ Loss of nutrients especially in the case of cooking
    - ✓ Poor food hygiene
    - ✓ Expensive in terms of processing
    - ✓ Lack of knowledge of food preservation
    - ✓ Lack of continuous power supply
    - ✓ Contributing to pollution and deforestation
51. List five materials that can be made locally in the school and the home
    - ✓ Crayons
    - ✓ Vim
    - ✓ Soap
    - ✓ Floor polish

- ✓ Shoe polish
- ✓ Cleaning powder

52. Give three materials used for making shoe polish
    - ✓ Charcoal
    - ✓ Paraffin
    - ✓ Candle wax
    - ✓ Pots
    - ✓ Sieve
    - ✓ Mortar and pestle
    - ✓ Sticks
    - ✓ Source of heat
53. Mention three materials used for making crayons
    - ✓ Pieces of reed
    - ✓ Candle wax
    - ✓ Coloured chalk or dye
    - ✓ Sticks
    - ✓ Source of heat
    - ✓ Pots
    - ✓ Tins
54. Explain the meaning of the term “information and communication technology”
    - ✓ Information and communication technology refers to the use of the computers and other devices to capture, process, store, retrieve, transfer and control information in different forms
55. Give four examples of information and communication technologies
    - ✓ Computers
    - ✓ Radios
    - ✓ Televisions
    - ✓ Telephones
    - ✓ Cell phones
    - ✓ Fax machines
    - ✓ Auto teller machines
56. Explain the importance of information and communication technologies
    - ✓ Source of employment
    - ✓ Contributing to the improvement in the quality of health services
    - ✓ Can be used for leisure
    - ✓ Enabling people to have quick access to information
57. Mention three disadvantages of information and communication technologies
    - ✓ Increased unemployment rate
    - ✓ Exposure to health risks
    - ✓ The high cost of advanced technologies

58. Give two input devices of a computer
    - ✓ Keyboard
    - ✓ Mouse
59. Give two output devices of a computer
    - ✓ Monitor
    - ✓ Printer
60. What is the main part of a computer?
    - ✓ Central processing unit (CPU)
61. What is the use of CPU of a computer
    - ✓ Used to keep information
62. Mention four parts of the plant
    - ✓ Leaves
    - ✓ Stem
    - ✓ Roots
    - ✓ Flowers
63. Give the importance of leaves
    - ✓ Allowing air to pass in and out of the plant
    - ✓ Making plant food
64. What name is given to small holes on lower and upper parts of leaves
    - ✓ Stomates
65. What is the use of stems to the plants?
    - ✓ Connecting leaves, branches and roots
    - ✓ Passage for water and minerals
    - ✓ Storing food for the plant
66. What is the importance of roots to plants?
    - ✓ They hold the plant in the soil
    - ✓ Taking in water and mineral salts from the soil
    - ✓ Storing food for the plant
67. Giver two functions of flowers
    - ✓ Producing fruit and seeds
    - ✓ Attracting some insects and birds
68. Give two types of light energy
    - ✓ Direct source of light
    - ✓ Indirect source of light
69. What are direct sources of light
    - ✓ Direct sources of light are all objects that give light on their own

46. Give three examples of direct sources of light
    - ✓ Sun
    - ✓ Fire
    - ✓ Candle flames

- ✓ Fireflies
- ✓ Neon worms
- ✓ Stars

47. Give two classes of direct sources of light energy
    - ✓ Natural sources
    - ✓ Artificial sources
48. What are indirect sources of light?
    - ✓ Indirect sources of light are all objects that do not give light on their own
49. Give two examples of indirect sources of light
    - ✓ Moon
    - ✓ Reflectors
    - ✓ Mirrors
50. List two uses of light energy
    - ✓ Helping in seeing
    - ✓ Making Vitamin D in the body
    - ✓ For security
    - ✓ For photosynthesis
    - ✓ For egg production
    - ✓ For production of electricity
    - ✓ Heat production
    - ✓ Plant growth and flowering
    - ✓ Taking pictures
51. Give two dangers of light energy
    - ✓ It can cause skin cancer
    - ✓ It can cause blindness
    - ✓ It can scorch plants
52. State three sources of heat energy
    - ✓ Friction
    - ✓ Electricity
    - ✓ Chemical reactions
53. What are the uses of heat energy?
    - ✓ Cooking
    - ✓ Warming up places
    - ✓ Pressing clothes
    - ✓ Baking bricks
    - ✓ Hatching eggs
    - ✓ Breaking rocks
    - ✓ Curing tobacco
    - ✓ Cooling and healing water
    - ✓ Generating electricity

- ✓ Drying clothes and hair
- ✓ Promoting germination of seeds
- ✓ Fermentation

54. Give two negative effects of heat energy
    - ✓ Destruction of forests
    - ✓ Loss of property
    - ✓ Scalds
    - ✓ Making dwelling places uncomfortable
    - ✓ Bushfires
    - ✓ Global warming
55. State any two technologies that use heat energy
    - ✓ Water heater
    - ✓ Pressing iron
    - ✓ Cooker
56. Give one way of producing sound energy
    - ✓ Vibrating the body
    - ✓ Vibrating objects
57. Give any three uses of sound energy
    - ✓ For communication
    - ✓ For entertainment
    - ✓ For giving warning signals
    - ✓ For telling time
    - ✓ For mating in animals
    - ✓ For determining the depth of water bodies
    - ✓ For showing happiness
    - ✓ For expressing sorrow
58. Explain any two applications of sound in technology
    - ✓ Detecting heart beat
    - ✓ Detecting minerals
    - ✓ Detecting the presence of fish in a fishing ground
59. Give any five sources of sound energy
    - ✓ Vocal cords
    - ✓ Stretched pieces of strings
    - ✓ Reed
    - ✓ Insects
    - ✓ Cell phones
    - ✓ Sirens
    - ✓ Motor vehicles
    - ✓ Radio
    - ✓ Wind instruments

- ✓ Animals
- ✓ Drums
- ✓ Guitar

60. Describe any two reasons for cooking food
    - ✓ Destroying harmful organisms
    - ✓ Making food more digestible
    - ✓ Making food taste good (palatable)
    - ✓ Preserving food
    - ✓ Improving the appearance
61. Mention any five methods of cooking
    - ✓ Boiling method
    - ✓ Steaming method
    - ✓ Stewing method
    - ✓ Frying method
    - ✓ Baking method
    - ✓ Roasting method
62. Describe the meaning of the term 'boiling food'
    - ✓ Cooking food in boiling water until it is tender
63. Give suitable foods for boiling
    - ✓ Meat
    - ✓ Fish
    - ✓ Starchy foods
    - ✓ Green vegetables
    - ✓ Root vegetables
64. Give any two advantages of boiling food
    - ✓ It softens the fibres
    - ✓ It requires little attention
    - ✓ Several foods can be cooked together in one pot
    - ✓ The liquid in which foods have been cooked may be used for making soups, sauces and gravies
65. Give any two disadvantages of boiling food
    - ✓ Some vitamins can be lost
    - ✓ It uses a lot of fuel
    - ✓ Some foods may lose flavour and colour
    - ✓ Some mineral salts might be lost
66. Describe the meaning of the term 'steaming method of cooking'
    - ✓ Steaming method of cooking is cooking food in steam from boiling water
67. Give two ways of steaming food
    - ✓ Direct steaming
    - ✓ Indirect steaming

68. Describe direct method of steaming of food
    - ✓ This is a type of steaming method where the steam gets into contact with the food
69. Describe indirect method of steaming of food
    - ✓ This is a type of steaming method where steam does not get into contact with the food
70. Give suitable foods for steaming
    - ✓ Fresh fish
    - ✓ Liver
    - ✓ Root vegetables
    - ✓ Pudding
    - ✓ Egg and milk custard
71. Give any two advantages of steaming method
    - ✓ Requires less attention
    - ✓ No loss of food value
    - ✓ It is economical
    - ✓ Food cooked in this way is easily digestible
    - ✓ Can be done by people who are weak or have a disability
72. Explain any two disadvantages of steaming method
    - ✓ Slow method of cooking
    - ✓ Food does not look appetizing
    - ✓ Not suitable for cooking some foods
    - ✓ It requires a lot of heat
73. Explain the difference between “steaming” and “boiling” method of cooking.
    - ✓ Steaming is cooking food using steam rising from boing water while boiling is cooking food in water
74. Define the term kitchen
    - ✓ A kitchen is a place where food is stored, prepared and cooked
75. Describe kitchen hygiene
    - ✓ Kitchen hygiene is the proper care and use of the kitchen and kitchen equipment to avoid accidents and diseases
76. Explain the importance of kitchen hygiene
    - ✓ Prevention of accidents
    - ✓ Avoid food contamination
    - ✓ Helps on to avoid excessive bending and stretching
    - ✓ Prevents pests
    - ✓ Prevention of diseases
77. Mention any two ways of cleaning kitchen
    - ✓ Sweeping
    - ✓ Mopping
78. Describe two ways of kitchen hygiene
    - ✓ Bathing everyday

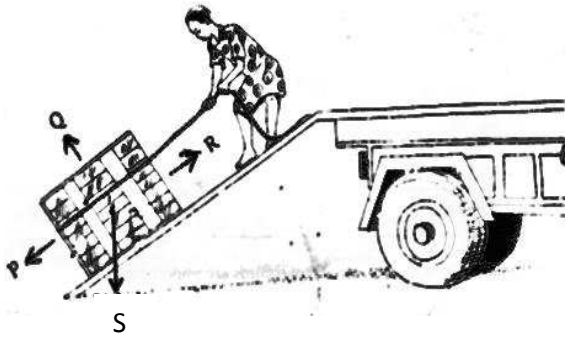
- ✓ Keeping fingernails short
- ✓ Wearing a clean apron or overall
- ✓ Tying back hair or braids if they are long
- ✓ Wearing a head scarf
- ✓ Avoiding handling food when you have an infectious disease

79. Give any two safety rules to be followed in the kitchen
    - ✓ Keep the kitchen clean and dry
    - ✓ Remove broken glass from the kitchen
80. Mention any two common causes of accidents in the kitchen
    - ✓ Poor repairs
    - ✓ Untidiness
    - ✓ Poor lighting
    - ✓ Carelessness
    - ✓ Sharp objects
    - ✓ Fire
    - ✓ Slippery floors
    - ✓ Poisonous substances
81. Describe common accidents in the kitchen
    - ✓ Falls due to slippery or wet floors
    - ✓ Cuts caused by sharp objects
    - ✓ Taking poisonous substances
    - ✓ Suffocation caused by polythene bags
82. Describe any two safety precautions in the kitchen
    - ✓ immediately cleaning any spillage on the floor
    - ✓ removing broken glass and sweeping the floor properly to remove splinters
    - ✓ keeping sharp equipment properly out of children's reach
    - ✓ turning saucepan handles inwards and out of reach of children
    - ✓ switching off cookers after use
    - ✓ cords for electric appliances such as pressing irons and electric kettles should be repaired and carefully insulated
    - ✓ not having any curtains
    - ✓ using proper oven gloves or cloth to lift hot dishes from the oven
83. Decribe the term meal
    - ✓ Meal is a set of dishes served and eaten together at a specific time
84. List the three main meals of the day
    - ✓ Breakfast
    - ✓ Lunch
    - ✓ Dinner
85. Describe any two importance of planning meals.
    - ✓ Helping to save money

- ✓ Helping to save time
- ✓ Helping to save energy
- ✓ Avoiding wastage of food resources
- ✓ Avoiding monotony in the diet
- ✓ Avoids wastage of resources
- ✓ Ensuring that one gets all the required nutrients in the right proportions

86. List any three factors to consider when planning meals
    - ✓ Number of people
    - ✓ Nature of work or occupation
    - ✓ Age
    - ✓ Health status
    - ✓ Time of the day
    - ✓ Season of the year
    - ✓ The occasion
    - ✓ Nutritional value of each type of food
87. Give three guidelines you should follow when planning meals
    - ✓ plan meals for the whole day or week and not individual meals. This helps to avoid wastage
    - ✓ choose suitable methods of cooking to avoid loss of food nutrients
    - ✓ plan meals that are available if the food is to be bought
    - ✓ avoid serving the same type of food every day to avoid monotony
    - ✓ plan meals that have a variety in colour, texture, appearance and taste
    - ✓ consider the different nutritional needs of the members of the family such as manual workers, sedentary workers, nursing mothers, children, the elderly and the sick
88. Define 'machines'
    - ✓ Machines are devices that help us to make work easier or faster
89. What are the three classes of levers.
    - ✓ First class levers
    - ✓ Second class levers
    - ✓ Third class levers
90. Give three examples of simple machines
    - ✓ Inclined plane
    - ✓ Lever
    - ✓ Pulley
    - ✓ Wedge
    - ✓ Screw
91. Describe inclined plane
    - ✓ Inclined plane means slanted surface
92. Caustic soda is a chemical used when making
    - ✓ Soap

The figure below is a diagram showing a person pulling a box on to the back of a lorry using a machine. Use it to answer questions 93 to 95



93. What is the name of the machine?
- ✓ Inclined plane

94. Which letter represents the effort?
- ✓ R

95. If the force marked S is 4 N and R is 2 N, find the mechanical advantage (MA)

- ✓ MA $= \frac{\text{load}}{\text{effort}}$

$= \frac{4}{2}$

$= 2.0$

96. Give any two examples of first order levers
- ✓ Pair of scissors
- ✓ Piers
- ✓ See-saw
- ✓ Arm

97. Give three types of pulleys
- ✓ Fixed pulley
- ✓ Movable pulley
- ✓ Combined pulley

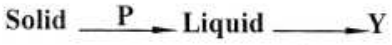
98. Explain any three reasons for cleaning the home
- ✓ promoting the physical and mental health of individuals living in the home
- ✓ providing comfort to the occupants of the home
- ✓ keeping the original appearance of surfaces in the home
- ✓ keeping the surfaces in the home attractive and in good condition
- ✓ keeping the home in good condition so that it lasts longer

99. state three ways of cleaning the home
- ✓ Sweeping
- ✓ Brushing
- ✓ Mopping

100. Explain why it is important to dispose of refuse from the house
    - ✓ Homes look attractive
    - ✓ To prevent the spread of diseases
    - ✓ To provide comfort
101. Identify any three ways of keeping the home surroundings clean
    - ✓ Sweeping outside
    - ✓ Cutting grass short around the home
    - ✓ Removing cobwebs
    - ✓ Picking up litter
    - ✓ Draining stagnant water
    - ✓ Disposing of refuse properly
    - ✓ Planting flowers
102. State any three ways of removing refuse from the house and its surroundings
    - ✓ Sweeping
    - ✓ Mopping
    - ✓ Smearing
103. Define the term laundry
    - ✓ Laundry refers to the process of making garments and articles clean
104. Give any three laundry materials
    - ✓ Stain removers
    - ✓ Soap
    - ✓ Water
    - ✓ Bleaches
    - ✓ Starches
105. State any three laundry equipment
    - ✓ Buckets
    - ✓ Sink
    - ✓ Pegs
106. List all laundry steps in order
    - ✓ Sorting → Mending → Soaking → Washing →Drying →Ironing → Airing → Storing
107. Explain why mending before washing is important
    - ✓ Helps to prevent over tearing
108. State any three importance of laundering garments and articles
    - ✓ making garments and articles last long
    - ✓ making garments and articles look clean and attractive
    - ✓ preventing bad smells, lice and breeding of germs which cause the spread of diseases such as skin diseases
    - ✓ promoting good health
    - ✓ promoting one's image

109. Give two uses of table linen
   - ✓ it protects furniture from dust, hot temperatures and spills from food
   - ✓ it is used for decoration
   - ✓ it can be used for covering food
   - ✓ it reduces noise from plates and crockery
110. What is matter?
   - ✓ Matter is anything that occupies space and has mass
111. List any examples of matter
   - ✓ Stones
   - ✓ Rubber
   - ✓ Water
   - ✓ Wood
   - ✓ Air
   - ✓ Petrol
112. Give the main three states of matter
   - ✓ Gas
   - ✓ Liquid
   - ✓ Solid

The figure below is a diagram showing changes of state of matter. Use it to answer questions 113 and 114



113. What process is represented by the letter **P**?
   - ✓ Melting
114. How could the change of state of matter labelled **Y** be useful to human beings?
   - ✓ Drying clothes
115. State any three uses of state of matter
   - ✓ Building blocks of structures
   - ✓ Drying clothes
   - ✓ Home of animals
   - ✓ Source of energy
   - ✓ Making ice blocks
   - ✓ Means of transporting nutrients in living things
   - ✓ Distillation of alcohol
116. What is evaporation?
   - ✓ Evaporation is the change of matter from liquid to gas
117. Describe the meaning of the term “packed meal”
   - ✓ Packed meal is food which can be taken while away from home

118. Give any three reasons for taking meals at school
    - ✓ Ensures daily supply of food
    - ✓ Discourages stealing habit
    - ✓ Ensures that they carry clean, safe and nutritious food
119. Give any three factors to consider when planning packed meals
    - ✓ Nature of food
    - ✓ Method of cooking
    - ✓ Nutritive value
    - ✓ Nature of work
    - ✓ Drinks
120. Give any five examples of suitable foods for packed meals
    - ✓ Mkate
    - ✓ Fritters
    - ✓ Bananas
    - ✓ Fruit juices
    - ✓ Green maize
    - ✓ Roasted maize
    - ✓ Roasted groundnuts
    - ✓ Oranges
    - ✓ Bean cakes
    - ✓ Boiled cassava
    - ✓ Potatoes
    - ✓ Boiled eggs
121. Mention any five suitable materials for carrying packed meals
    - ✓ Plastic papers
    - ✓ Banana leaves
    - ✓ Plastic bottles
    - ✓ Vacuum flasks
    - ✓ Plastic food containers
    - ✓ Aluminium foils
122. Give any two ways of improving sitting rooms
    - ✓ clean the room regularly
    - ✓ ensure it is well ventilated
    - ✓ improvise furniture
    - ✓ arrange equipment and furniture attractively
    - ✓ decorate the room by using items such as mats, floor rugs,, carpets, ornamental plants, pictures and photographs, wooden carvings and paintings
    - ✓ picture frames should be mended
    - ✓ damaged pictures should be replaced

123. Give any two ways of improving dining room
    - ✓ cleaning it regularly
    - ✓ improvising furniture
    - ✓ arranging equipment and furniture properly
    - ✓ decorating it with items such as floor rugs, ornamental plants, pictures and wood carvings
124. Explain any one way of improving the surrounding
    - ✓ Planting flowers
    - ✓ Planting grass
125. Mention any two items that can be used to improve the house
    - ✓ Wall hangings
    - ✓ Hang shopping bags
    - ✓ Use tablemats
126. Explain factors to consider when using flowers to improve the home
    - ✓ The type of occasion
    - ✓ The colour scheme
    - ✓ The size of the table
    - ✓ The shape of the table
127. Describe the term 'communication'
    - ✓ Communication is the process of sending and receiving information
128. Explain any two problems affecting information and communication
    - ✓ lack of appropriate information and communication technology
    - ✓ inability to access and use the available information and communication technology
    - ✓ high cost of information and communication technology
    - ✓ vandalism of public information and communication facilities
    - ✓ Low levels of literacy which makes it difficult for some people to access certain information
    - ✓ Poverty which makes it difficult to afford the high cost of information and communication technology
    - ✓ Poor information and communication services
    - ✓ Lack of opportunities for training in information and communication
129. Suggest any two solutions to problems of information and communications
    - ✓ Communication should be provided with appropriate information and communication technology
    - ✓ People should be informed about how to access and use available information and communication technology
    - ✓ Information and communication technologies should be sold at reasonable prices
    - ✓ The general public should be sensitized on the importance of public information and communication technologies to minimize vandalism
    - ✓ The literacy levels among the people should be raised

- ✓ Levels of poverty should be reduced
- ✓ Information and communication services should be improved
- ✓ Personnel working in information and communication including the users should be properly trained

130. Give any two ways of managing computers
- ✓ Should be handled by properly-trained persons
- ✓ Should be covered after use to avoid dust
- ✓ Should be repaired by a qualified person if they have developed a fault
- ✓ Should be kept and used in a relatively cool environment
- ✓ Should be updated regularly

131. Explain any two ways of managing a radio
- ✓ Should be handled with care
- ✓ Should be given to a qualified person for repairs
- ✓ Should be connected to a suitable power supply
- ✓ Should be put far from any object that interferes reception

132. Explain any two ways of managing a cell phone
- ✓ Should not be dropped to the ground
- ✓ Should not be in contact with water
- ✓ Should not be used for too long at any particular time
- ✓ Should not be kept or stored in a hot environment
- ✓ Should not be overloaded with information
- ✓ Should be taken to a qualified person for repairs
- ✓ Should be fitted with the right type of battery
- ✓ Should be charged whenever the battery is low
- ✓ Should be switched off in unauthorized places such as banks, planes, fuel stations and places of meetings

133. “Disseminating information” means
- ✓ Spreading information

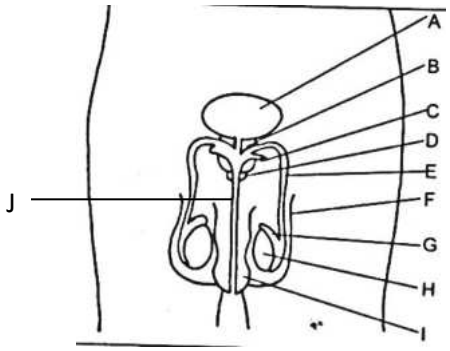
134. Which disease can be prevented by practising kitchen hygiene?
- ✓ Diarrhoea

135. Which preservation technology removes water from the food?
- ✓ Salting

STANDARD 7 SCIENCE AND TECHNOLOGY

1. What is fertilization?
   - ✓ Fertilization is the union of the sperm and egg
2. Mention two male reproductive parts
   - ✓ Penis
   - ✓ Testes
3. State three female reproductive parts
   - ✓ Ovaries
   - ✓ Uterus
   - ✓ Vagina
   - ✓ Fallopian tubes or oviducts

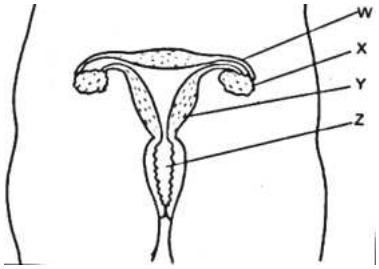
Figure below is a diagram showing male reproductive parts. Use it to answer questions 4 and 5



4. Name the parts labelled A, B, C, D, E, F, G, H and I
   - ✓ A = urinary bladder
   - ✓ B = prostate gland
   - ✓ C = seminal vesicle
   - ✓ D = Cowper's gland
   - ✓ E = sperm duct
   - ✓ F = scrotum
   - ✓ G = epididymis
   - ✓ H = testis
   - ✓ I = penis
   - ✓ J = urethra
5. Describe the function of the male reproductive parts labelled A, B, C, D, E, F, G, H, I and J
   - ✓ Urinary bladder stores urine
   - ✓ Prostate gland provides food for sperm
   - ✓ Seminal vesicle provides food for sperm
   - ✓ Cowper's gland provides food for sperm
   - ✓ Sperm duct is the passage for sperm
   - ✓ Scrotum holds the testes outside the body

- ✓ Epididymis stores sperm
- ✓ Testis makes sperm
- ✓ Penis is for reproduction and for passing out urine
- ✓ Urethra is the passage for urine

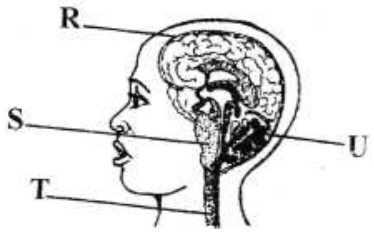
Figure below is a diagram showing female reproductive parts. Use it to answer questions 6 and 7



6. Name the parts labelled W, X, Y, and Z
   - ✓ W = fallopian tube
   - ✓ X = ovary
   - ✓ Y = uterus
   - ✓ Z = vagina
7. Describe the functions of female reproductive parts labelled W, X, Y and Z
   - ✓ Fallopian tube is where ovum travels to womb
   - ✓ Ovary produces ovum
   - ✓ Uterus is womb in which baby develops
   - ✓ Vagina is a tube which receives the penis
8. Explain when human life starts
   - ✓ It starts soon after conception
9. Name a liquid which sperm swim into the vagina
   - ✓ It is called Semen
10. What name is given to a tube that attaches embryo to placenta?
    - ✓ Umbilical cord
11. Identify three main parts of the brain
    - ✓ Cerebrum
    - ✓ Cerebellum
    - ✓ Medula obrongata
12. Which part of the brain is the biggest
    - ✓ Cerebrum
13. Where is the biggest part of the brain located?
    - ✓ Cerebrum
14. Give any four ways of caring for the brain
    - ✓ Getting plenty of rest
    - ✓ Avoiding abusing of drugs and substances

- ✓ Eating meals that are well balanced
- ✓ Avoiding smoking and drinking alcohol
- ✓ Doing regular exercises
- ✓ Reducing levels of stress
- ✓ Relaxing

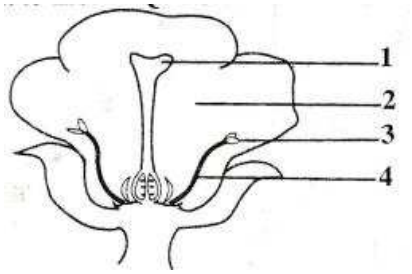
Figure below is a diagram of a human brain. Use it to answer questions 14 and 15



15. Identify the part marked **T**
    - ✓ Spinal cord
16. Which part controls blood pressure?
    - ✓ S
17. Mention any two causes of damage to the brain
    - ✓ Neck and back injuries
    - ✓ Blows to the head
    - ✓ Diseases
18. Give any three effects of drug and substance abuse on the brain
    - ✓ Mental disorders
    - ✓ Poisoning
    - ✓ Suffocation
    - ✓ Intoxication
    - ✓ Damage of nerve cells and brain cells
    - ✓ Injury
    - ✓ Depression
    - ✓ Death
19. Give two major groups of plants
    - ✓ Flowering plants
    - ✓ Non-flowering plants
20. Describe the difference between flowering and non-flowering plants
    - ✓ Flowering plants produce flowers while non-flowering plants do not produce flowers
21. Give any four examples of flowering plants
    - ✓ Maize
    - ✓ Rice
    - ✓ Mangoes
    - ✓ Beans

22. Mention any six examples of non-flowering plants
    - ✓ Pine
    - ✓ Sisal
    - ✓ Algae
    - ✓ Ferns
    - ✓ Moulds
    - ✓ Mushroom
    - ✓ Cedar
    - ✓ Lichens
    - ✓ Liverworts
    - ✓ Mosses
23. List any three uses of flowering and non-flowering plants
    - ✓ Provision of food
    - ✓ Source of medicine
    - ✓ Provision of building materials
    - ✓ Source of fuel
    - ✓ Source of paper making materials
    - ✓ Source of furniture
    - ✓ Source of clothes
    - ✓ Source of income
    - ✓ Help in prevention of soil erosion
24. What is stamen?
    - ✓ It is a male part of the flower
25. Why are petals brightly coloured?
    - ✓ To attract insects
26. What part of the flower develops into a fruit?
    - ✓ Ovary

Figure below is a cross-sectional diagram of a flower. Use it to answer questions 27 to 30



27. Which parts make the male flower?
    - ✓ 3 and 4
28. What happens to the part labelled **2** after fertilization?
    - ✓ It withers and falls off
29. What name is given to the part labelled **1**?
    - ✓ stigma

30. Explain the function of the part labelled **2**
    - ✓ Attracts pollination agents
31. What happens to the ovary after fertilization?
    - ✓ It grows into a fruit
32. What is pollination?
    - ✓ Pollination is the transfer of pollen grains from anthers to stigma
33. Give two types of pollination
    - ✓ Self pollination
    - ✓ Cross pollination
34. Describe cross pollination
    - ✓ Cross pollination is the transfer of pollen grains from the anther of a flower to the stigma of another flower on another plant of the same kind
35. What is self pollination?
    - ✓ Self pollination is the transfer of pollen grains from the anther of a flower to the stigma of the same flower or another flower of the same plant
36. Give four agents of pollination
    - ✓ Insects
    - ✓ Wind
    - ✓ Water
    - ✓ Birds
37. Give any four adaptations of insect pollinated flowers
    - ✓ Has compact sticky stigma
    - ✓ Large, rough and heavy pollen grains
    - ✓ Produce few pollen grains per anther
    - ✓ Stamen have short stout filament
38. State any four adaptations of wind pollinated flowers
    - ✓ Not scented
    - ✓ No nector
    - ✓ Petals are not brightly coloured
    - ✓ Many pollen grains produced per anther
39. Explain why insect pollinated flower has scent, brightly coloured and sticky
    - ✓ To attract insects
40. What happens to the petals, sepal, stamen and style when ovules in ovary develop into a fruit?
    - ✓ They wither and fall off
41. What is seed dispersal?
    - ✓ Seed dispersal is the scatering of seeds away from the parent plant
42. Give four agents of seed dispersal
    - ✓ Wind
    - ✓ Animals

- ✓ Water
- ✓ Explosive mechanism

43. List down any five importance of fruit and seed dispersal
    - ✓ Prevents overcrowdness
    - ✓ Reduces competition for light, water and nutrients
    - ✓ Increases the chances of survival of the species
    - ✓ Reduces diseases among crowded plants
    - ✓ Plants get established in new places
44. What four physical changes take place in girls as they grow into adults
    - ✓ Soft voice
    - ✓ Develop breasts
    - ✓ Hips get wider
    - ✓ Skin becomes oily
    - ✓ Hair grows around genitals
45. State any two psychological changes that take place in girls as they grow up
    - ✓ Begin to develop sexual feelings and get excited when they see a boy
    - ✓ Interest in boys increases and they start taking extra care about how they look
    - ✓ Develop more self confidence and do not like to be forced to do things they do not want to do. They want to be treated like adults
    - ✓ Become more sensitive to remarks from adults and peers about the changes they are going through
    - ✓ Experience frequent changes in their mood
    - ✓ Become increasingly sensitive to failure
46. Give any two physical changes that take place in boys as they grow up
    - ✓ Grow taller and heavier. Their hands and shoulders become bigger and stronger.
    - ✓ The skin becomes oily and the face develops pimples
    - ✓ Grow hairs in the armpits, around the genitals and on the face
    - ✓ Produce sperm
    - ✓ Develop deep voice
    - ✓ Experience wet dreams
47. Define the term adolescence
    - ✓ A period when boys and girls are changing from childhood to adulthood
48. Define premarital sex
    - ✓ Premarital sex means sexual intercourse before marriage
49. Give three effects of premarital sex
    - ✓ Teenage pregnancies
    - ✓ Contracting HIV and STIs
    - ✓ Dropping out of school
50. Mention three machines that use the principles of levers
    - ✓ Pair of scissors

- ✓ Bottle opener
- ✓ Wheelbarrow
- ✓ Knife

51. What factors would you consider when making machines?
    - ✓ Demand
    - ✓ Need
    - ✓ Use
    - ✓ Availability of materials
    - ✓ Cost
52. Name any two materials from which you can obtain dyes
    - ✓ Tea leaves
    - ✓ Roots
    - ✓ Curry
53. Why are materials dyed?
    - ✓ To beautify of decorate them
54. What is the difference between natural fabrics and artificial fabrics?
    - ✓ Natural fabrics absorb dyes more readily than the artificial ones
55. What are nutritional deficiency diseases?
    - ✓ Nutritional deficiency diseases are diseases caused due to lack of food nutrients in a diet
56. State any three examples of nutritional deficiency diseases
    - ✓ Goiter
    - ✓ Rickets
    - ✓ Anaemia
    - ✓ Marasmus
    - ✓ Kwashiorkor
    - ✓ Night blindness
    - ✓ Scurvey

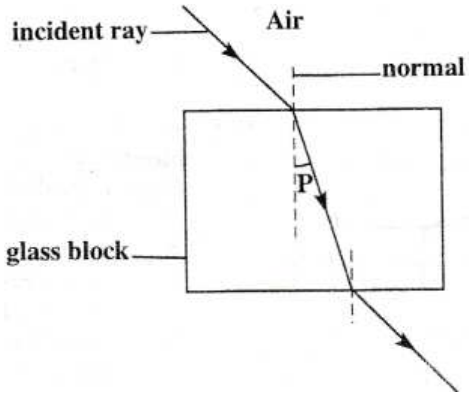
Figure below is a diagram of a person with a deficiency disease. Use it to answer questions 57 and 58



57. Name the disease the person is suffering from
    - ✓ Goitre
58. Which could help to prevent the disease?
    - ✓ Iodised foods

59. Explain how nutritional deficiency diseases can be avoided
    - ✓ By eating a variety of foods in the diet
60. Night blindness is caused by lack of
    - ✓ Vitamin A
61. Give any two symptoms of anaemia
    - ✓ Tiredness
    - ✓ Pale hands
    - ✓ Pale mouth
    - ✓ Pale skin
    - ✓ Pale mucus membranes
    - ✓ Pale eyes
    - ✓ Heart palpitations
62. Including carrots in the diet helps in
    - ✓ Improving the eyesight
63. Which three living things reproduce through binary fission?
    - ✓ Amoebas
    - ✓ Plasmodia
    - ✓ Trypanosome
64. Define force
    - ✓ Force means push or pull
65. What is reflection?
    - ✓ Reflection is bouncing off of light rays from a surface
66. Define the term refraction
    - ✓ Refraction means the sudden change of direction of light as it travels from one medium to another of different optical density

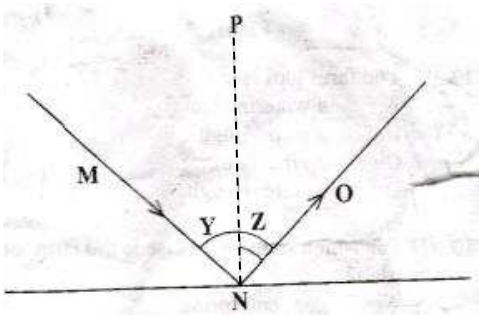
Figure below is a diagram showing a path of a ray of light passing through a block of glass. Use it to answer questions 67 and 68



67. Name the angle labelled **P**
    - ✓ Angle of refraction
68. Which property of light is demonstrated in the diagram?
    - ✓ Light can be refracted

69. Why is the inner surface of a vacuum flask painted silver?
    - ✓ To reduce loss of heat through radiation

Figure below is a diagram showing a ray of light reflected by a plane mirror. Use it to answer questions 70 and 71

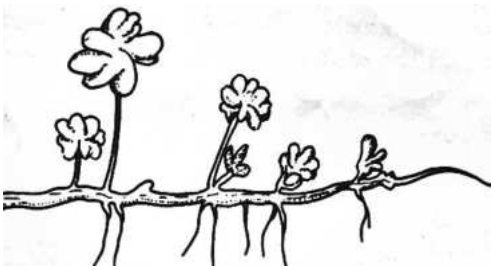


70. What is the name of the ray marked **M**?
    - ✓ Incident ray
71. Find angle marked **Z**, if angle marked **Y** is 50^{o}
    - ✓ 50^{o}
72. What is an echo?
    - ✓ An echo is a reflected sound
73. Mention two properties of sound
    - ✓ Sound can be reflected
    - ✓ Sound can be refracted
    - ✓ Sound can be absorbed
    - ✓ Sound can be transmitted through substances
74. Give any two properties of light
    - ✓ Refraction
    - ✓ Reflected
75. Give any two technologies that use properties of light
    - ✓ Eye
    - ✓ Telescopes
    - ✓ Mirrors
    - ✓ Pairs of binoculars
    - ✓ Spectacles
76. Identify two properties of heat that are used to construct a thermometer
    - ✓ Expansion
    - ✓ Contraction
77. What is technology?
    - ✓ Technology is the use of scientific skills and equipment to solve everyday problems
78. Explain how sound is formed
    - ✓ Sound is formed when objects are vibrating

79. Explain how you understand by the term technologies for domestic use
    - ✓ They are technologies used at home
80. Give any five examples of technologies for domestic use
    - ✓ Knitting and sewing needles
    - ✓ Grinding stone
    - ✓ Charcoal stoves
    - ✓ Clay pots
    - ✓ Sieves
81. What is laundering?
    - ✓ Laundering is the process of cleaning garments or articles
82. Define the term stain
    - ✓ Stain means discolour or an undesirable mark on a garment or article
83. Give any three types of stains
    - ✓ Animal stains
    - ✓ Vegetable stains
    - ✓ Mineral stains
84. Give any three importance of laundering clothes
    - ✓ Promotes good image
    - ✓ Prevents bad smell
    - ✓ Makes clothes last longer
85. Explain the difference between manual and sedentary worker
    - ✓ Manual worker is a person who does physical or heavy work while sedentary worker is a person who works while seating at one place
86. List any three methods of cooking that are suitable for sedentary workers
    - ✓ Boiling
    - ✓ Stewing
    - ✓ Frying
87. Give two types of cooking
    - ✓ Dry methods of cooking
    - ✓ Moist methods of cooking
88. Why it is important for manual workers to have plenty of fluids in their meals?
    - ✓ Because they lose a lot of water and energy when working
89. Give any three reasons for cooking foods
    - ✓ Improving appetite
    - ✓ Making food palatable
    - ✓ Killing parasites in food
90. What is the difference between frying and stewing methods of cooking?
    - ✓ Frying is a method of cooking food in hot fat or oil while stewing is a method of cooking food in liquid for a long time to soften it

91. Give any two advantages of frying food
    - ✓ No loss of soluble nutrients
    - ✓ The food looks attractive
    - ✓ Fuel is saved
    - ✓ A quick method of cooking
92. What are advantages of stewing food?
    - ✓ It does not need constant attention
    - ✓ Tough pieces of meat are made tender
    - ✓ No loss of nutrients
93. Give the three main parts of a plant
    - ✓ Leaves
    - ✓ Stems
    - ✓ Roots
    - ✓ Flowers

Figure below shows a type of a stem. Use it to answer questions 94 and 95



94. Identify the type of stem in the figure above
    - ✓ Creeping stem
95. Give any two examples plants which have such type of stem
    - ✓ Kapinga grass
    - ✓ Sweet potato
    - ✓ Strawberry
96. Give any three types of roots
    - ✓ Fibrous roots
    - ✓ Tap root
    - ✓ Adventitious roots
    - ✓ Prop roots
    - ✓ Aerial roots
    - ✓ Tuberous roots
97. What are vertebrates?
    - ✓ Animals with a backbone
98. Which fins in a fish are used for forward movement?
    - ✓ Caudal (tail) fin

99. Classify the following animals as vertebrates and invertebrates: chicken, mosquito, amoeba and man.
    (i) Vertebrates: chicken, man
    (ii) Invertebrates: mosquito, amoeba

100. What are the five groups of vertebrates?
- ✓ Mammals
- ✓ Amphibians
- ✓ Fish
- ✓ Reptiles
- ✓ Birds

101. Mention any four ways in which a dog protects itself from its enemies
- ✓ Biting
- ✓ Barking
- ✓ Running away
- ✓ Having a very good sense of smell to detect danger from far

102. Name any two vertebrates which use camouflage as a way of protecting themselves
- ✓ Chameleons
- ✓ Snakes

103. Distinguish between a snail and a tapeworm
- ✓ A snail has a shell with non-segmented body while a tapeworm has no shell but has a segmented body

104. Describe how the life cycle of a grasshopper is different from that of a housefly
- ✓ A grasshopper goes through an incomplete metamorphosis with the following stages: egg, nymph and adult grasshopper; whereas a housefly goes through a complete metamorphosis with the following stages: egg, larva, pupa and adult housefly

105. Give three reasons why a honey-bee is a useful insect
- ✓ It produces honey that can be used as food, medicine and a source of income
- ✓ It also helps in the pollination of flowers

106. What is the meaning of the term metamorphosis?
- ✓ Metamorphosis means the development in stages on an insect from the young to the adult

107. State two types of metamorphosis
- ✓ Complete metamorphosis
- ✓ Incomplete metamorphosis

108. What is the difference between “complete” and ”incomplete” metamorphosis?
- ✓ Complete metamorphosis has four stages of development while incomplete metamorphosis has three stages of development because it does not have pupa stage

109. Explain the function of a jack
- ✓ Lifting heavy objects

110. State any two advantages of invertebrate animals
- ✓ Source of food
- ✓ Source of medicine
- ✓ Help in aeration and improving soil fertility
- ✓ Source of income

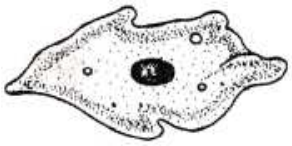
111. Give any two disadvantages of invertebrate animals
- ✓ Carriers of diseases
- ✓ Damage crops
- ✓ Harmful to humans
- ✓ Cause suffering

112. Give any three examples of invertebrate animals that cause diseases
- ✓ Plasmodium causes malaria
- ✓ Trypanosome causes sleeping sickness
- ✓ Amoeba causes dysentery

113. What is scientific investigation?
- ✓ Means the way of getting information and knowledge

114. Define the term camouflage
- ✓ Camouflage means changing of colours

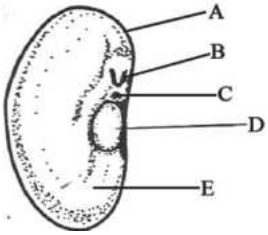
Figure below is a diagram of a microscopic organism. Use it to answer questions 115 and 116



115. The name of the microscopic organism is
- ✓ Amoeba

116. To which group of invertebrates does the organism belong?
- ✓ Protozoa

The figure below is a diagram showing external parts of a bean seed use it to answer questions 117 and 118



117. Identify parts labelled A, B, C, D and E

A = Seed coat (testa)

B = Radicle

C = Micropyle

D = Hilum

E = Cotyledon

118. State the function of part labelled E
- ✓ Allows water and air to enter the seed

119. Give any four materials used for making toys
- ✓ Clay
- ✓ Papers
- ✓ Wood
- ✓ Wire

120. State any four examples of toys
- ✓ Clay toy
- ✓ Paper toy
- ✓ Wooden toy
- ✓ Wire toy

121. Give any four factors to consider when costing a toy
- ✓ Time taken
- ✓ Materials used
- ✓ Durability
- ✓ Attractiveness of a toy

122. Give any three ways of marketing a toy
- ✓ Advertising
- ✓ Displaying
- ✓ Showcasing

123. What are classroom technologies?
- ✓ Classroom technologies are resources or materials used for teaching and learning

124. State any two classroom technologies
- ✓ Duster
- ✓ Chalkboard
- ✓ Radio
- ✓ Ruler
- ✓ Paper

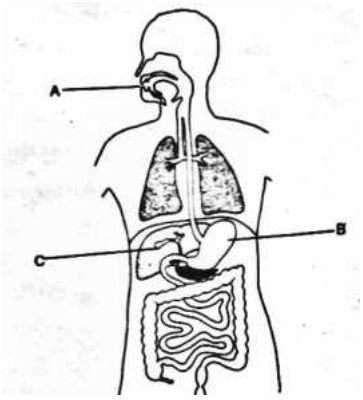
125. What is the importance of using classroom technologies?
- ✓ It makes teaching and learning more effective

126. State any two advantages of using improvised classroom technologies
- ✓ Materials are locally available
- ✓ Encourage creativity
- ✓ Assist in the teaching and learning process

127. Define the term digestion
- ✓ Digestion is a process by which insoluble food is broken down into small soluble molecules

128. What is the other name for large intestine?
- ✓ Colon

Figure below is a diagram showing the human digestive system. Use it to answer the questions 129 and 130



129. Identify parts labelled A and B

A = mouth

B = stomach

130. What is the function of the part labelled C?
- ✓ Stores bile

131. State any two problems of the digestive system
- ✓ Constipation
- ✓ Intestinal ulcers
- ✓ Diarrhoea
- ✓ Haemorrhoids
- ✓ Intestinal parasites

132. Who are sedentary workers?
- ✓ Workers not involved in heavy work

133. Plan a meal that a sedentary worker could take as lunch
- ✓ Stewed fish, nsima, boiled nkhwani and lemonade

134. Why should meals for manual workers contain a lot of energy giving nutrients?
- ✓ Because they lose most minerals

135. What force causes a ball that is thrown upwards to return to the ground?
- ✓ Gravitational force

136. Which method of cooking reduces loss of food nutrients?
- ✓ Frying

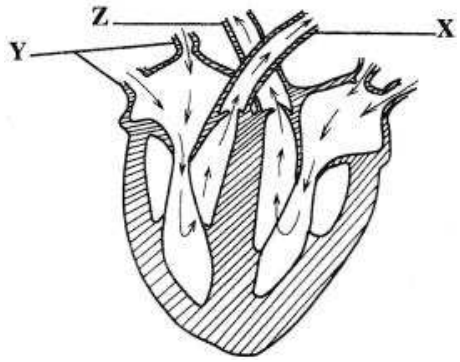
137. Animals with jointed legs are known as
- ✓ Arthropods

138. Lack of iron in the diet causes
- ✓ Anaemia

STANDARD 8 SCIENCE AND TECHNOLOGY

1. Define the term blood circulation
   - ✓ Blood circulation means movement of blood around the body

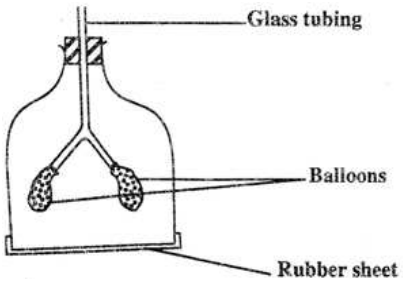
Figure below is a diagram showing a longitudinal section of the human heart. Use it to answer questions 2 to 4



2. Name the part labelled **X**
   - ✓ Pulmonary artery
3. State the function of the part labelled **Z**
   - ✓ Pumping blood out of the heart to all parts of the body
4. Explain the effect on human being if the heart stopped pumping blood
   - ✓ A human being would die
5. Name the process whereby blood oozes from the body
   - ✓ Bleeding
6. What happens to the blood in the lungs?
   - ✓ Oxygen is added to the blood making it look bright red
7. Which component of the blood is responsible for transporting oxygen?
   - ✓ Red blood cells
8. Explain why blood is dark red in colour when coming from different parts of the body
   - ✓ Because it contains less oxygen
9. Explain why blood is bright red when coming from the lungs
   - ✓ Because it contains more oxygen
10. Give any two functions of a liver
    - ✓ Regulates food transported by the blood
    - ✓ Stores excess food
11. Give any two importance of blood circulation
    - ✓ Helps in excretion of waste products
    - ✓ Helps in diffusion of digested food particles
12. Which blood vessel carries blood into the heart from all parts of the body?
    - ✓ Pulmonary vein
13. Which blood vessel carries blood from the heart to all parts of body
    - ✓ Pulmonary artery

14. Define the term bleeding
    - ✓ Means oozing of blood from the body
15. Give the cause of bleeding
    - ✓ Blood pressure
16. Give any two effects of bleeding
    - ✓ Anaemia
    - ✓ Death
17. State any two ways of controlling bleeding
    - ✓ Applying direct pressure on injured part
    - ✓ Raising the injured part to reduce the amount of blood flowing
18. Define the term blood transfusion
    - ✓ Blood transfusion means transferring of blood from one person to another
19. Give one importance of blood transfusion
    - ✓ Helps to save the lives of others
20. Give any one problem associated with blood transfusion
    - ✓ Transmission of diseases if it is not well screened

Figure below is a diagram showing a lung model. Use it to answer questions 21 to 23



21. What do the following parts represent in the respiratory system?
    (i) balloons: lungs
    (ii) glass tubing: trachea (wind pipe)
22. What happens to the part give in question 21 (i) when the part represented by the rubber sheet moves up?
    - ✓ Air is pushed out
23. Give a reason for your answer in question 22
    - ✓ Because there is high air pressure inside the chest cavity
24. Define the term breathing
    - ✓ Breathing means the process through which air is pushed in and out of the lungs
25. Give the two main phases of breathing system
    - ✓ Inspiration (known as inhalation)
    - ✓ Expiration (known as exhalation)
26. Describe the difference between inspiration and expiration
    - ✓ Inspiration means breathing in air while expiration is breathing out air

27. Explain what happens to the following when breathing
    a) Diaphragm
        - ✓ Contracts and becomes flat
    b) Ribs
        - ✓ The Ribs move up and out due to the contraction of external intercostal muscles
28. Explain what happens to the diaphragm and ribs during expiration (breathing out)
    - ✓ Diaphragm relaxes and moves outwards and ribs move down and inwards
29. List down five parts involved in breathing
    - ✓ Nostrils
    - ✓ Wind pipe (trachea)
    - ✓ Lungs
    - ✓ Ribs
    - ✓ Diaphragm
30. List down any five problems of breathing system
    - ✓ Smoking
    - ✓ Air pollution
    - ✓ Diseases
    - ✓ Suffocation
    - ✓ Smothering
31. State any two ways of caring for breathing system
    - ✓ Avoid smoking
    - ✓ Avoid air pressure
32. Explain the difference between suffocation and smothering
    - ✓ Suffocation is a situation where air cannot pass in and out the lungs while smothering is a situation is where air cannot get into the mouth or nose
33. In the lungs, where does gas exchange take place?
    - ✓ In the alveoli or air sacks
34. Define the term diaphragm
    - ✓ Diaphragm means wall of muscles between the chest and stomach which helps to control breathing
35. List down five ways of improving the nutritional value of food
    - ✓ Combining several foods when cooking
    - ✓ Adding enriching food to dishes
    - ✓ Overcooking fish to soften bone
    - ✓ Cooking some food in their skin
    - ✓ Using one pot meals
36. Give any four factors to consider when preparing dish with improved nutritional value
    - ✓ Methods of cooking
    - ✓ Colour, texture and flavour of food
    - ✓ Season of the year

- ✓ Ensure that meals are nutritional balanced

37. List down any four effects of poor nutrition
    - ✓ Malnutrition
    - ✓ Stunted growth among children
    - ✓ Poor mental capacity
    - ✓ Increased risk of chronic illnesses
    - ✓ High mortality rate among children
    - ✓ Low productivity in everyday activities
    - ✓ Strain on the economy of the country
    - ✓ Low standards of living
38. Give any four effects of good nutrition
    - ✓ Healthy population
    - ✓ Proper growth in children
    - ✓ High living standards of living
    - ✓ Good nutritional status
    - ✓ High productivity in everyday activities
39. State any five reasons why some people become vegetarians
    - ✓ Because of religion
    - ✓ Because of health
    - ✓ Animal welfare
    - ✓ Because of taste
    - ✓ Because of allergy
40. Give two main types of vegetarians
    - ✓ Lacto vegetarians
    - ✓ Strict vegetarians
41. Explain the difference between lacto and strict vegetarians
    - ✓ Lacto vegetarians are those that eat vegetables and animal products while strict vegetarians are those that eat vegetables only
42. Define the term 'invalid'
    - ✓ A person who is ill
43. Write a sample breakfast menu for a convalescent
    - ✓ Fresh fruit salad
      Boiled eggs
      Toasted bread
      Fruit juice
      Tea with milk
44. Making food palatable means
    - ✓ Improving taste of the food
45. What is a kitchen?
    - ✓ Kitchen is the place where food is prepared, cooked and stored

46. Give two main types of kitchen
    - ✓ The modern kitchen
    - ✓ The traditional kitchen
47. Give two types of traditional kitchen
    - ✓ Open traditional kitchen
    - ✓ Closed traditional kitchen
48. Give any two strength of traditional kitchen
    - ✓ Easy to construct
    - ✓ Easy to maintain
49. Give any two limitations of traditional kitchen
    - ✓ Wastage of fuel energy
    - ✓ Food can have a smoky flavour
50. Give any four ways how a traditional kitchen can be improved
    - ✓ Make kitchen with windows and chimney
    - ✓ Improvise shelves in a kitchen
    - ✓ Make a dry rack outside the kitchen
    - ✓ Construct a mud stove with more than one cooking place
51. How can poor lighting of a traditional kitchen be improved?
    - ✓ By providing windows
52. Give any five examples of local products
    - ✓ Mats
    - ✓ Clay pots
    - ✓ Mortar and pestle
    - ✓ Hoe handle
    - ✓ Wood carvings
53. Explain how to improve local products stated in question 52
    - ✓ improving the smell
    - ✓ improving the taste
    - ✓ improving the appearance
    - ✓ improving the colour
    - ✓ improving the volume
    - ✓ improving the shape
    - ✓ packaging
    - ✓ decorating
    - ✓ labelling

Figure below is a diagram showing a product. Use it to answer Questions 54 and 55.



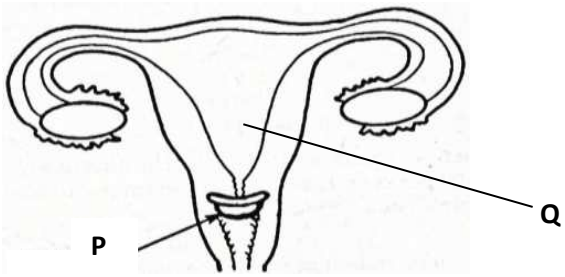
54. Name the way of improving the quality of the product.
    - ✓ Improving the shape
55. What is the importance of improving the quality of the product?
    - ✓ High sales at a better price
56. Explain why is it important to improve the quality of products
    - ✓ Products of high quality can help to build confidence in the consumer.
    - ✓ The producer is assured of high sales at a better price.
    - ✓ Quality assurance ensures that the products are manufactured consistently and are attract
57. State two negative effects of improving the quality of products
    - ✓ the products may become expensive and slow to sell
    - ✓ some materials used for improving the quality of the products may not be found locally and can be expensive
58. Define the term food processing
    - ✓ Food processing refers to the methods that are used to change raw ingredients into food products for human and animal consumption
59. Give any five reasons for food processing
    - ✓ Improving flavour, texture and appearance of food
    - ✓ Preserving the food
    - ✓ Improving the quantity of food
    - ✓ Preventing wastage
    - ✓ Improving livelihood of people
60. Give two main ways of processing food
    - ✓ Primary food processing
    - ✓ Secondary food processing
61. Explain the difference between primary and secondary food processing
    - ✓ Primary processing involves raw ingredients for sale, consumption or making them ready for cooking while secondary processing involves turning basic processed foods into new products
62. Give any four disadvantages of food processing
    - ✓ Loss of nutrients during processing
    - ✓ Some methods are not hygienic
    - ✓ Some methods can lead to wastage
    - ✓ Food processing can lead to increase in the cost of food
63. Give any four major signs and symptoms of pregnancy
    - ✓ Menstruation stops to occur
    - ✓ Morning sickness
    - ✓ Increase in body weight
    - ✓ Enlargement of breasts and abdomen
64. Give any four needs of a pregnant woman and unborn baby
    - ✓ a balanced diet
    - ✓ plenty of clean and safe drinking water and other fluids but not alcoholic drinks

- ✓ undergoing regular medical check-ups at antenatal clinics
- ✓ taking regular baths and wearing clean clothes
- ✓ not smoking or taking of drugs without prescription by a medical doctor
- ✓ love
- ✓ care
- ✓ understanding from all people around her
- ✓ proper attire such as loose clothes and flat shoes
- ✓ regular moderate physical exercises

65. Give any four ways of caring for a baby
    - ✓ Immunization against diseases
    - ✓ Provision of Vitamin A
    - ✓ Diagnosis and treatment of infection
    - ✓ Adequate sleep
66. Give any five common diseases of children
    - ✓ Polio
    - ✓ Measles
    - ✓ Diarrhea
    - ✓ Pneumonia
    - ✓ Anaemia
67. Give any two ways of preventing common diseases of children
    - ✓ By immunization
    - ✓ Follow general rules of hygiene
68. List down any four importance of under-five clinic
    - ✓ Routine check-ups on the health of children
    - ✓ Giving advice on feeding the baby
    - ✓ Administering BCG vaccine to prevent TB and DPT to prevent diphtheria
    - ✓ Provision of vitamin A
    - ✓ Treatment of common infections
69. Define the term family planning
    - ✓ Family planning means the practice of spacing out births and limit the size of the family
70. List down male family planning methods
    - ✓ Vasectomy
    - ✓ Male condom
71. List down female family planning methods
    - ✓ Contraceptive pills
    - ✓ Diaphragm
    - ✓ Intra-uterine device (IUD)
    - ✓ Tubal ligation
    - ✓ Norplant

72. List down family planning methods used on both male and female
    - ✓ Natural methods
    - ✓ Spermicide
73. List down any four importance of family planning
    - ✓ Helps to limit the size of the family
    - ✓ Helps the women to protect themselves from unplanned pregnancies
    - ✓ Helps to save lives of children
    - ✓ Helps to develop the nation
74. Explain how pregnancy takes place?
    - ✓ When a sperm fertilizes the egg in the fallopian tube to form a zygote
75. Why should the diet of a pregnant woman contain iron in sufficient quantities?
    - ✓ Because iron helps in the formation of red blood cells
76. How does the unborn baby get its food?
    - ✓ By diffusion of food substances from the blood of the mother to that of unborn baby

Figure below is a diagram showing a method of family planning. Use it to answer questions 77 and 78



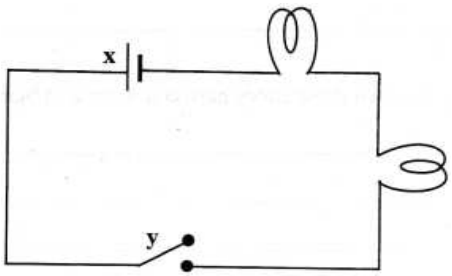
77. What is the name of this method of family planning marked **P**?
    - ✓ The diaphragm
78. What name is given to the part marked **Q**?
    - ✓ Uterus
79. Define the term mixture
    - ✓ Is a combination of two or more substances
80. Give any four factors that affect the rate of solubility of substance in water
    - ✓ Size of particles
    - ✓ Temperature of water
    - ✓ Storing
    - ✓ Nature of substance
81. List down methods of separating mixtures
    - ✓ Hand picking
    - ✓ Winnowing
    - ✓ Sieving
    - ✓ Decanting
    - ✓ Filtration
    - ✓ Evaporation

- ✓ Distillation
- ✓ Magnetism

82. Give the meaning of the following terms;
    a) Solution
        - ✓ means mixture of two or more substances and appear as one
    b) Soluble substance
        - ✓ Is substance that dissolves in water
    c) Insoluble substance
        - ✓ is substance that does not dissolve in water
    d) Solute
        - ✓ is a substance that dissolves in another substance
    e) Solvent
        - ✓ is a substance in which something dissolves
83. Define the term suspension solution
    - ✓ Is substance that can be easily seen when dissolved in water
84. Give any four technologies used to conserve environment
    - ✓ Solar cookers
    - ✓ Fuel saving stoves
    - ✓ Solar panels
    - ✓ Paper recycling
85. Explain the difference between primary and secondary sources of electricity
    - ✓ Primary electricity sources are those that produce electricity by connecting directly to the load while secondary produce electricity through an intermediary e.g. generator
86. List down any six sources of electricity
    - ✓ Wind power
    - ✓ Geo-thermal power
    - ✓ Hydro – power
    - ✓ Chemical energy
    - ✓ Thermocouple
    - ✓ Solar energy
87. Give any four uses of electricity
    - ✓ For cooking
    - ✓ For ironing
    - ✓ For lighting
    - ✓ For cooking
    - ✓ For cleaning
    - ✓ For heating
    - ✓ For drying
    - ✓ For communication
    - ✓ For air conditioning

88. Give two main types of circuit
    - ✓ Series circuit
    - ✓ parallel circuit
89. Describe the difference between series and parallel circuits
    - ✓ A series circuit has one conducting path while parallel circuit has more than one conducting path
90. Give two advantages of parallel circuit
    - ✓ The components are controlled separately
    - ✓ Each component uses the total voltage from the source
91. Explain how a bulb gives light
    - ✓ It gives light when it is connected to a cell and electric current that flows in the electric circuit causes the bulb to give light

The figure below is a diagram of an electric circuit. Use it to answer questions 92 to 94



92. What type of circuit is shown in the diagram?
    - ✓ Series circuit
93. What will happen to the bulbs when part **y** is closed?
    - ✓ They will give light
94. What name is given to the part labelled **x**?
    - ✓ Cell
95. Why should starch be added to cotton garments in laundering?
    - ✓ To improve stiffness
96. Blood should be screened before transfusion in order to
    - ✓ Supply correct blood
97. Which instrument is used to detect the beating of the heart?
    - ✓ Stethoscope
98. What is the function of a switch in an electric circuit?
    - ✓ Controls the flow of electricity
99. What are the two main categories of fibre from which fabrics are made?
    - ✓ Natural fibre
    - ✓ Synthetic fibre
100. Give any two examples of synthetic fibre
    - ✓ Nylon
    - ✓ Polyester

- ✓ Rayon
- ✓ Acetate

101. State any two examples of natural fibre
- ✓ Cotton
- ✓ Linen
- ✓ Wool
- ✓ Silk
- ✓ Leather
- ✓ Fiberglass
- ✓ Aluminium
- ✓ Asbestos
- ✓ Sisal

102. Why should coloured articles be dried in the shade?
- ✓ To avoid bleaching the articles

103. List any two sources of food for a family
- ✓ Producing
- ✓ Buying
- ✓ Donations

104. Give two ways in which a family can ensure food availability throughout the year
- ✓ Produce enough food
- ✓ Proper storage
- ✓ Proper use of food resources

105. Mention any three ways in which HIV is transmitted
- ✓ Unprotected sexual intercourse with an HIV infected person
- ✓ Mother to child
- ✓ Blood transfusion
- ✓ Sharing of skin cutting objects

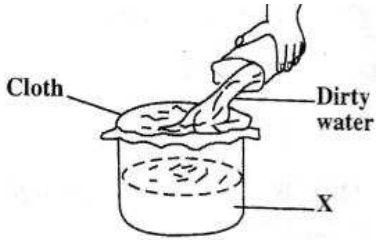
106. Mention any two ways in which HIV can be prevented
- ✓ abstinence from sex
- ✓ being faithful to one life-long uninfected sexual partner
- ✓ using condoms correctly and consistently during sexual intercourse
- ✓ avoiding having more than one sexual partner
- ✓ avoiding certain behaviours such as taking intoxicating drugs and substances
- ✓ avoiding sharing skin cutting objects such as razor blades and needles
- ✓ infected females should avoid getting pregnant or should seek medication
- ✓ avoiding cultural practices that can lead to the transmission of HIV

107. Which food items should be included in the diet for people living with HIV and AIDS?
- ✓ Onion
- ✓ Garlic
- ✓ Moringa

108. Why should these food items mentioned in question 94 be included in the diet of people living with HIV and AIDS?
   - ✓ To boost their immunity

109. Which is the most effective way of controlling HIV and AIDS?
   - ✓ Abstinence

Figure below is a diagram showing one of the methods of separating mixtures. Use it to answer questions 110 and 111



110. Which method of separating mixtures is shown in the diagram?
   - ✓ Filtration

111. What name is given to liquid lebbeled **X**?
   - ✓ Filtrate

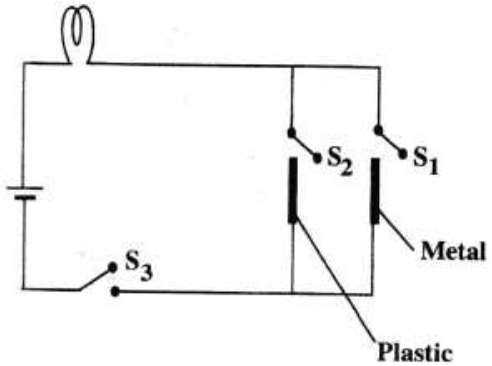
112. Which mixtures can be separated by winnowing?
   - ✓ Grains and husks

113. Name the technology which is used to make distant objects look bigger.
   - ✓ Telescope

114. Drug and substance abuse can cause
   - ✓ Brain damage

115. Which method could be used to separate a mixture of sand and small pieces of steel?
   - ✓ Using a magnet (magnetism)

Figure below is a diagram of an electric circuit. Use it to answer question 116



116. Which switch(es) should be closed for the bulb to light?
   - ✓ S_1 and S_3