



Primary 7 Integrated Science

PLE 2025 marking guide

Do all numbers in section A and B

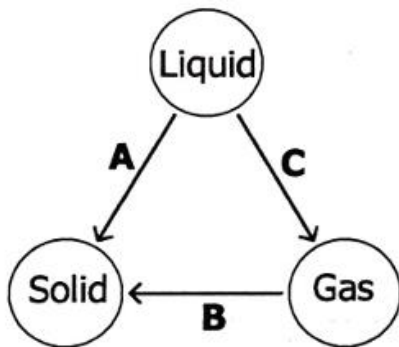
1. Name the type of soil which is good for the growing of crops.
2. Give the function of the stigma of a flower.
3. State any **one** way of controlling heartburn in human
4. State any **one** way in which slashing the bushes around a home helps to control diseases.
5. Mention any **one** way in which planting of trees improves the quality of air in the environment.
6. Give any **one** way that can be used to prevent the spread of tuberculosis in a community.
7. State any **one** reason why it is not good to breathe through the mouth.

The diagram below shows part of a root tuber crop. Use it to answer questions 8 and 9.



8. Name any **one** method of harvesting the root tuber crop.
9. Give any **one** reason why the above root tuber crop should be preserved after harvesting.
10. State any **one** way through which breastfeeding prevents diseases in babies
11. Give any **one** characteristic of bacteria
12. Mention the use of a barometer in a weather station.
13. State any **one** way through which the giving of feed to a cow during milking helps to stimulate milk let down.
14. Give **one** way in which the wearing of tight-fitting shorts helps in controlling thread worm infestation.
15. Name the part of the human male reproductive system that stores sperm cells.
16. Give any **one** way of conserving living organisms in the soil.
17. State any **one** of weather on pitch of sound.

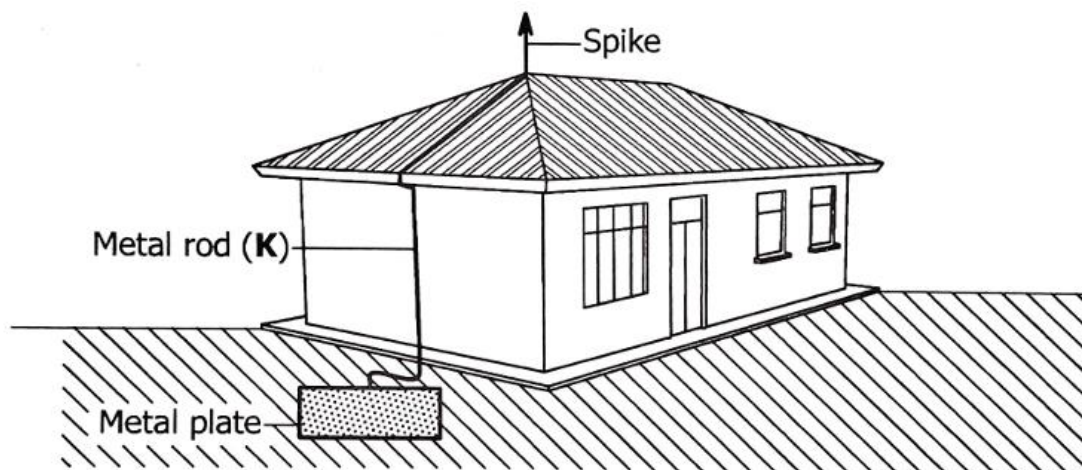
The diagram below shows the physical changes that take place in the states of matter. Use it to answer questions 18 and 19.



18. Name the physical change labelled A
19. State any **one** way in which physical change labelled C is important to plants.
20. Apart from being a drink, name any other use of alcohol.

21. Name any **one** exotic breed of goat kept for the same purpose as Friesian cows
22. State any **one** way in which flowers planted in a school compound are important.
23. Give any **one** way of keeping the human body muscles in good working condition.
24. Mention any **one** method used to prepare food at home.

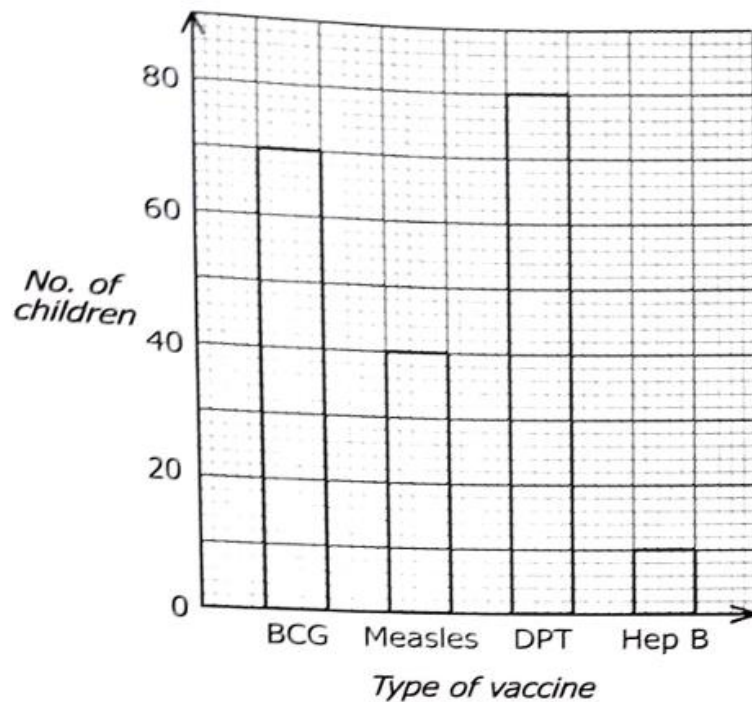
The diagram below shows a lightning conductor on a building. Use it to answer questions 25 and 26.



25. Name the material used to make the metal rod labelled K.
26. State **one** way in which the above lightning conductor helps to control damage on buildings.

27. Give **one** reason why boiled water should be filtered before drinking.
28. Mention any **one** way in which wind is used as a resource.
29. State any **one** way in which the strength of a magnet can be maintained.
30. Give **one** factor a health worker considers when prescribing a drug for the patient.
31. Identify the component of blood that transport waster products in human body.
32. Apart from being less dense, state any one other factor that makes an object float on a liquid.
33. State any **one** way in which animals benefit from moving in groups.
34. Name any **one** feature you can use to identify combs with young bees in a hive.
35. State reason why sound travels fastest in solids

The graph below shows vaccine that were received by children at a health centre on one Tuesday. Use it to answer questions 36 and 37



36. Identify any **one** disease for which the highest number of children received vaccine.
37. Determine the number of children born on that Tuesday.
38. State the reason why a balloon filled with air bursts when exposed to sunshine.
39. Give any **one** practice of caring for health of the brain in humans.
40. State any **one** way through which establishment of factories in a community can be dangerous to water sources.

Section B

41. (a) Give **two** social changes that take place at puberty.
(b) Mention any **two** ways through which an adolescent can manage the social changes.
42. The diagram below shows the animals W, X and Y that belong to three different groups of invertebrates. Use them to answer the questions that follow



- (a) Identify the group of invertebrate to which animal labelled X belongs.
- (b) Apart from having no backbone, state any one other way animals W and Y are similar in their body structure
- (c) State any **two** benefits of animal Y to human.

43. (a) Give the importance of each of the following in human diet:

- (i) Roughage
- (ii) Water.

(b) Give any **two** ways in which food taboos are important to people in some communities.

44. In the table below, A shows the elements of Primary Health Care (PHC) while B shows some problems that may result from failure to practice the elements of PHC.

A	B
Immunization	Typhoid fever
Family planning	Constipation
Water and sanitation	Halitosis
Oral health	Hepatitis B
	Maternal anemia

Match correctly the problems in B with the elements of PHC in A, in spaces provided below.

- (a) Immunization
- (b) Family planning
- (c) Water and sanitation
- (d) Oral health

45. A farmer has an apiary, a goat unit and a coffee plantation on the same piece of land

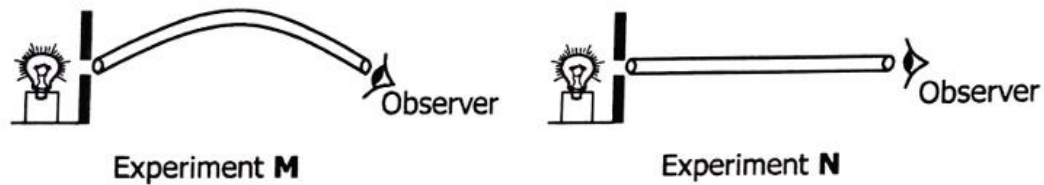
(a) State the benefit of the;

- (i) Apiary to the coffee plantation
- (ii) A goat unit to the coffee plantation.

(b) Mention any **one** danger of the apiary to the goat unit.

(c) Give any **one** way in which the farmer can control goats from disturbing the apiary.

46. The diagram below shows experiments that were carried out on how light travels. Use them to answer the questions that follow



- (a) Identify the experiment in which the observer was able to see light.
(b) State the principle of light demonstrated in the experiments above.
(c) Explain how the principle in (b) above results in the formation of shadows.
47. The diagram below shows part of the process of charcoal making. Use it to answer the questions that follow.



- (a) State the reason for covering the wood with soil in the above process.
(b) State any **one** danger of the above activity to environment.
(c) Identify any **two** ways the above activity can be controlled in a community.
48. (a) State any **two** reasons why rubbish from our homes should be sorted before disposing it to the garden

(b) Mention any **two** ways of keeping yourself safe while sorting rubbish at home.
49. (a) State any **two** ways you can use to control common sickness at home.

(b) Give any **two** ways through which juvenile delinquency can be controlled in a society

50. (a) Name **one** material excreted by the lungs in humans.

(b) State **one** way through which shivering helps to regulate body temperature

(c) Explain how each of the following practices helps in caring for the skin.

(i) wearing clean loose clothes

(ii) smearing with Vaseline

51. (a) State any **two** uses of the sun as an energy resource.

(b) State any **one** reason why fire extinguishers are commonly painted red.

(c) State **one** way in which soil is useful in putting out fire.

52. (a) Give any **one** example of a good conductor of heat.

(b) Mention any **one** way in which heat transfer by radiation is important to;

(i) plants

(ii) animals

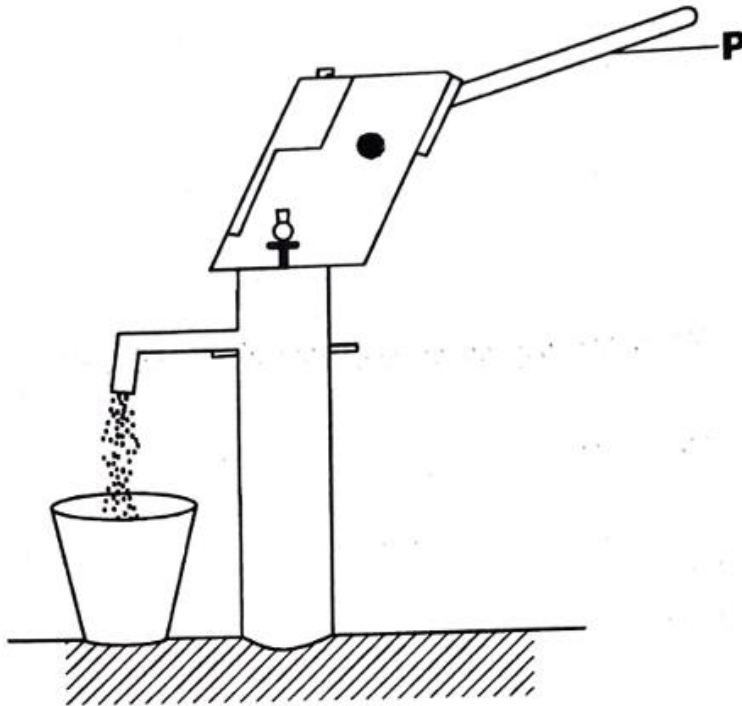
(c) Explain how the silvery walls of a thermos flask keep the hot liquid in the flask hot

53. (a) State the reason why a person suffering from HIV/AIDS is easily attacked by other diseases.

(b) Mention any one effect of HIV/AIDS on a community.

(c) Give any **two** ways of caring for a person living with HIV/AIDS.

54. The diagram below is of a simple machine. Use it to answer the questions that follow.



- Name the class of lever to which the above machine belongs
- Using an arrow, show the direction of the load when effort is applied to the part labelled P.
- State any **two** ways through which the efficiency of the above simple machine can be increased.

55. (a) Give any **one** cause of burns at home.

(b) Mention any **one** way in which cuts can be prevented in a school.

(c) Name any **two** responsibilities of first aider.

Suggested answers

1. Name the type of soil which is good for the growing of crops.

Loam

2. Give the function of the stigma of a flower.

Receives pollen grains

3. State any **one** way of controlling heartburn in human

- eating small meals,
- avoiding very spicy or fatty foods,
- not lying down immediately after eating,
- drinking clean water instead of soda.

4. State any **one** way in which slashing the bushes around a home helps to control diseases.

- (i) **Destroys mosquito hiding places** – this reduces malaria.
- (ii) **Removes breeding grounds for pests** – rats, snakes, and insects that spread diseases have fewer places to live.
- (iii) **Improves cleanliness** – a neat compound prevents germs from multiplying.
- (iv) **Allows sunlight to reach the ground** – sunlight keeps the area dry and discourages

5. Mention any **one** way in which planting of trees improves the quality of air in the environment.

- (i) **They take in carbon dioxide** – which is a waste gas from humans and vehicles.
- (ii) **They release oxygen** – which people and animals need to breathe.
- (iii) **They trap dust and smoke** – keeping the air cleaner.
- (iv) **They cool the environment** – reducing pollution and making fresh air.

6. Give any **one** way that can be used to prevent the spread of tuberculosis in a community.

- (i) **Cover mouth and nose when coughing or sneezing** – stops germs from spreading in the air.
- (ii) **Open windows for fresh air** – TB spreads more easily in crowded, closed places.
- (iii) **Avoid overcrowding** – keeping space between people reduces infection.

- (iv) **Complete TB treatment** – patients should take all their medicine so they don't spread the disease.
- (v) **Health education** – teaching people about TB helps them protect themselves.

7. State any **one** reason why it is not good to breathe through the mouth.

- (i) **The nose cleans the air** – it traps dust and germs before they enter the lungs.
- (ii) **The nose warms and moistens air** – making it safe and comfortable for the lungs.
- (iii) **Mouth breathing can cause dryness** – leading to sore throat and bad breath.

The diagram below shows part of a root tuber crop. Use it to answer questions 8 and 9.



8. Name any **one** method of harvesting the root tuber crop.

Uprooting

Digging out

9. Give any **one** reason why the above root tuber crop should be preserved after harvesting.

- (i) **It spoils quickly** after harvest if not stored well.
- (ii) **Preservation makes it last longer** for food security.
- (iii) **It prevents wastage** by keeping cassava safe to eat.
- (iv) **It allows easy transport and sale** without rotting.

10. State any **one** way through which breastfeeding prevents diseases in babies

Contain antibodies that protect the baby against diseases

11. Give any **one** characteristic of bacteria

- (i) **Very small living things** – they can only be seen under a microscope.
- (ii) **Single-celled organisms** – made up of just one cell.
- (iii) **Multiply by binary fission** – they reproduce very fast.
- (iv) **Found everywhere** – in soil, water, air, and even inside our bodies.
- (v) **Some are useful** – help in making food like yoghurt and cheese.
- (vi) **Some cause diseases** – like cholera, tuberculosis, and typhoid.

12. Mention the use of a barometer in a weather station.

Measures air pressure

13. State any **one** way through which the giving of feed to a cow during milking helps to stimulate milk let down.

Keeps it calm and helps milk to flow easily.

14. Give **one** way in which the wearing of tight-fitting shorts helps in controlling thread worm infestation.

Stop threadworms from spreading their eggs and reduce re-infection.

15. Name the part of the human male reproductive system that stores sperm cells.

Epididymis

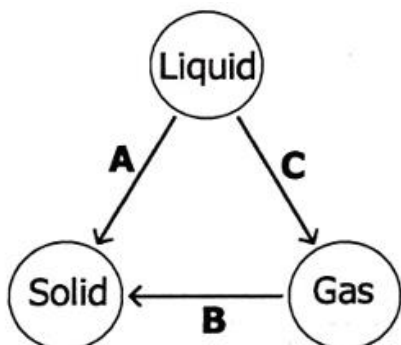
16. Give any **one** way of conserving living organisms in the soil.

- (i) **Avoid over-using chemicals** – too many pesticides or fertilizers kill useful soil organisms.
- (ii) **Practice crop rotation** – planting different crops keeps the soil healthy for organisms.
- (iii) **Add organic matter** – things like compost and manure provide food for soil organisms.
- (iv) **Prevent soil erosion** – planting grass or cover crops protects organisms from being washed away.
- (v) **Avoid burning vegetation** – fire destroys soil life and reduces fertility.

17. State any **one** effect of weather on pitch of sound.

Increase or decrease pitch

The diagram below shows the physical changes that take place in the states of matter. Use it to answer questions 18 and 19.



18. Name the physical change labelled A
Melting
19. State any **one** way in which physical change labelled C is important to plants.
Transpiration cools the plant
Over transpiration wilts/kills the plant
20. Apart from being a drink, name any other use of alcohol.
Fuel
Solvent in pharmaceutical
Preservative
Antiseptic

21. Name any **one** exotic breed of goat kept for the same purpose as Friesian cows

Goat Breed	Origin	Milk Production Traits	Comparison to Friesian Cow
Saanen	Switzerland	High milk yield, up to 3–4 liters per day; white coat; calm temperament	Equivalent to Friesian cows in goats – best for commercial milk production
Toggenburg	Switzerland	Produces good volumes of milk; brown coat with white markings	Reliable dairy breed, though less milk than Saanen
Alpine (French Alpine)	France	Strong milk producers; adaptable to different climates	Similar to Friesian in adaptability and productivity
Nubian	England (mixed origins)	Milk rich in butterfat (good for cheese)	More like Jersey cows (high-fat milk) than Friesian
LaMancha	USA	Moderate milk yield, very high butterfat content	Known for unique short ears; milk quality rather than quantity

22. State any **one** way in which flowers planted in a school compound are important.

- (i) **They beautify the environment** – making the school look attractive and welcoming.
- (ii) **They provide fresh air** – flowers release oxygen which improves air quality.
- (iii) **They support learning** – pupils can study nature directly from the flowers.

23. Give any **one** way of keeping the human body muscles in good working condition.

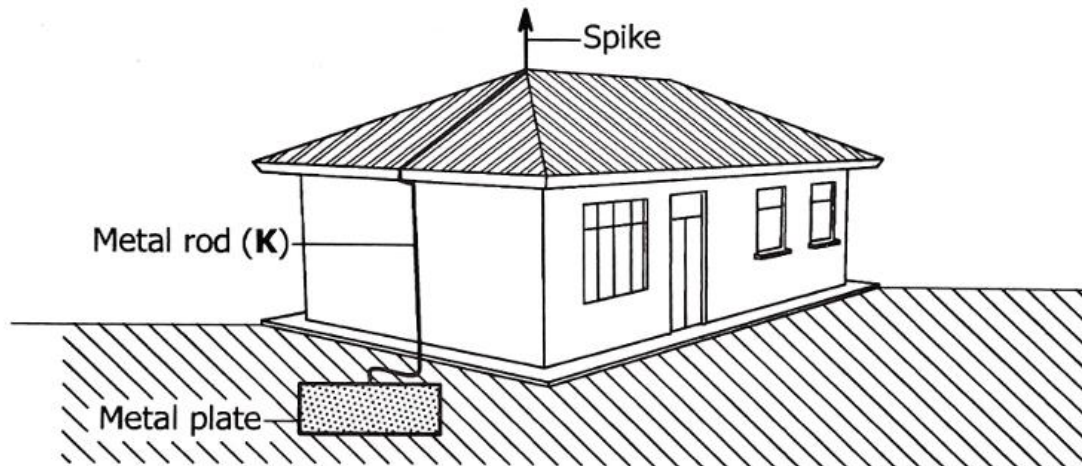
- (i) **Doing regular exercise** – activities like running, skipping, or playing games strengthen muscles.
- (ii) **Eating a balanced diet** – foods rich in proteins (beans, meat, milk, eggs) help build and repair muscles.
- (iii) **Getting enough rest and sleep** – allows muscles to recover and grow stronger.
- (iv) **Avoiding harmful habits** – such as smoking or drinking alcohol, which weaken the body.
- (v) **Maintaining good posture** – sitting and standing properly prevents muscle strain.

24. Mention any **one** method used to prepare food at home.

- (i) **Boiling** – cooking food in hot water, e.g. beans or potatoes.
- (ii) **Frying** – using oil to cook food, e.g. eggs or chapati.

- (iii) **Roasting** – cooking food over fire or in an oven, e.g. meat or maize.
- (iv) **Steaming** – cooking food using steam, e.g. matooke.
- (v) **Baking** – preparing food in an oven, e.g. bread or cakes.

The diagram below shows a lightning conductor on a building. Use it to answer questions 25 and 26.



25. Name the material used to make the metal rod labelled K.
Copper, aluminium
26. State **one** way in which the above lightning conductor helps to control damage on buildings.
Conducts charges safely to the ground when lightning strikes.
27. Give **one** reason why boiled water should be filtered before drinking.
To remove particle
To remove dirty
28. Mention any **one** way in which wind is used as a resource.
- (i) **Generating electricity** – wind turns turbines to produce power.
 - (ii) **Drying crops and clothes** – farmers and households use wind to dry things.
 - (iii) **Sailing boats** – wind pushes sails to move boats on water.
 - (iv) **Cooling the environment** – fresh air from wind helps reduce heat.
29. State any **one** way in which the strength of a magnet can be maintained.

- (i) **Use magnetic keepers (soft iron bars)** – placing them across the poles helps maintain strength.
- (ii) **Avoid dropping** – falling or hitting hard surfaces reduces their strength.
- (iii) **Store properly** – keep magnets away from heat and strong knocks, as these can weaken them.
- (iv) **Keep away from other strong magnets or electric currents** – these can interfere with their magnetic power.

30. Give **one** factor a health worker considers when prescribing a drug for the patient.

- (i) **Age of the patient** – children, adults, and the elderly may need different doses.
- (ii) **Weight of the patient** – heavier or lighter patients may require adjusted amounts.
- (iii) **Type of illness** – the drug must match the disease being treated.
- (iv) **Severity of the illness** – serious conditions may need stronger or longer treatment.
- (v) **Allergies or reactions** – to avoid giving drugs that may harm the patient.
- (vi) **Other medicines being taken** – to prevent dangerous mixing of drugs.

31. Identify the component of blood that transport waster products in human body.

Plasma

32. Apart from being less dense, state any one other factor that makes an object float on a liquid.

Surface tension

33. State any **one** way in which animals benefit from moving in groups.

- (i) **Protection from enemies** – it is harder for predators to attack when animals are together.
- (ii) **Easier to find food** – animals can search for food as a team.
- (iii) **Guidance and care** – young ones are protected and guided by older animals.
- (iv) **Movement becomes safer** – animals can follow each other and avoid getting lost.
- (v) **Better survival** – living in groups increases their chances of staying alive.

34. Name any **one** feature you can use to identify combs with young bees in a hive.

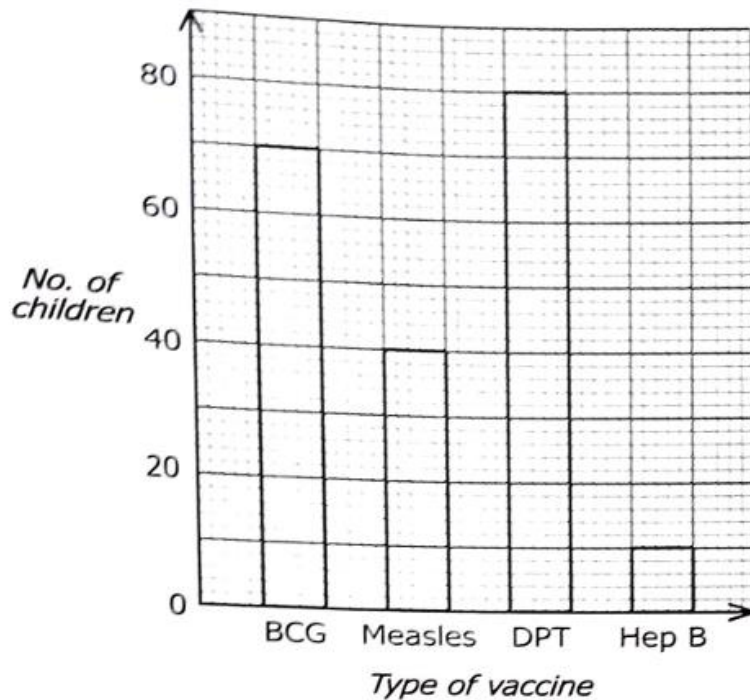
- (i) **Sealed brood cells** – the comb has many small, capped cells where young bees are developing.
- (ii) **Even surface** – the capped brood area looks smooth and uniform compared to honey cells.

- (iii) **Brownish caps** – the covers of brood cells are slightly darker than the whitish caps of honey.
- (iv) **Presence of nurse bees** – many worker bees are seen attending and feeding the young inside those cells.

35. State reason why sound travels fastest in solids

- (i) **Particles in solids are very close together** – this allows vibrations to pass quickly from one particle to another.
- (ii) **Strong bonds between particles** – the tight connections make it easier for sound waves to move efficiently.
- (iii) **Less space between particles** – compared to liquids and gases, solids have little empty space, so sound energy moves faster.

The graph below shows vaccine that were received by children at a health centre on one Tuesday. Use it to answer questions 36 and 37



36. Identify any **one** disease for which the highest number of children received vaccine.

- Diphtheria
- Tetanus
- Pertussis

37. Determine the number of children born on that Tuesday.
65 (BCG) is given at birth
38. State the reason why a balloon filled with air bursts when exposed to sunshine.
Air expands on heating
39. Give any **one** practice of caring for health of the brain in humans
- (i) **Eating a balanced diet** – foods rich in proteins, vitamins, and minerals help the brain work well.
 - (ii) **Getting enough sleep** – rest allows the brain to recover and stay active.
 - (iii) **Regular exercise** – physical activity improves blood flow to the brain.
 - (iv) **Avoiding harmful substances** – staying away from alcohol, drugs, and smoking protects brain cells.
 - (v) **Reading and learning** – keeping the brain active strengthens memory and thinking.
 - (vi) **Managing stress** – relaxing and playing helps the brain stay healthy.
40. State any **one** way through which establishment of factories in a community can be dangerous to water sources.
- can make water dirty and unsafe by releasing waste, chemicals, and smoke into water sources

Section B

41. (a) Give **two** social changes that take place at puberty.
- (i) **Developing interest in the opposite sex** – boys and girls begin to notice each other more.
 - (ii) **Desire for independence** – young people want to make their own decisions.
 - (iii) **Forming friendships** – stronger bonds are made with peers of the same age.
 - (iv) **Mood changes** – feelings may shift quickly, leading to excitement or sadness.
 - (v) **Greater self-awareness** – concern about appearance and how others see them.
- (b) Mention any **two** ways through which an adolescent can manage the social changes.
- (i) **Seeking guidance** – talking to parents, teachers, or elders for advice.
 - (ii) **Choosing good friends** – keeping company with peers who have positive behavior.

- (iii) **Staying busy with school and hobbies** – focusing on studies, sports, and talents to avoid bad influence.
- (iv) **Practicing self-control** – managing emotions and avoiding risky behaviors.
- (v) **Keeping clean and neat** – good hygiene builds confidence and self-respect.
- (vi) **Respecting others** – treating peers and adults politely helps build healthy relationships.

42. The diagram below shows the animals W, X and Y that belong to three different groups of invertebrates. Use them to answer the questions that follow



- (a) Identify the group of invertebrate to which animal labelled X belongs.
Crustaceans
- (b) Apart from having no backbone, state any one other way animals W and Y are similar in their body structure
Have jointed body parts
- (c) State any **two** benefits of animal Y to human.
 - (i) **Source of food** – people eat grasshoppers as a delicacy rich in protein.
 - (ii) **Income generation** – selling grasshoppers provides money for families.
 - (iii) **Animal feed** – they can be used to feed poultry and fish.
 - (iv) **Cultural importance** – in some communities, eating grasshoppers is part of tradition

43. (a) Give the importance of each of the following in human diet:

(iii) Roughage

- **Help in digestion** – they add bulk to food, making it easier to move through the intestines.
- **Prevent constipation** – roughages keep the bowels clean and regular.
- **Give a feeling of fullness** – they help control overeating.
- **Remove waste** – they assist in clearing harmful substances from the body.
- **Keep the digestive system healthy** – by supporting proper functioning of the stomach and intestines.

- (iv) Water.
Soften food
Help in digestion

(b) Give any **two** ways in which food taboos are important to people in some communities.

- (i) **Promote respect for culture** – they help preserve traditions and customs.
- (ii) **Protect health** – some taboos prevent people from eating foods that may be harmful.
- (iii) **Strengthen unity** – following the same taboos brings people together.
- (iv) **Teach discipline** – they guide people to control their eating habits.
- (v) **Show identity** – food taboos distinguish one community from another.

44. In the table below, A shows the elements of Primary Health Care (PHC) while B shows some problems that may result from failure to practice the elements of PHC.

A	B
Immunization	Typhoid fever
Family planning	Constipation
Water and sanitation	Halitosis
Oral health	Hepatitis B
	Maternal anemia

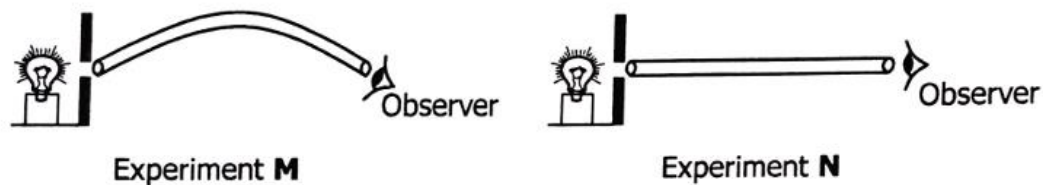
Match correctly the problems in B with the elements of PHC in A, in spaces provided below.

- (e) Immunization
- (f) Family planning
- (g) Water and sanitation
- (h) Oral health

45. A farmer has an apiary, a goat unit and a coffee plantation on the same piece of land

- (d) State the benefit of the;
- (iii) Apiary to the coffee plantation
Bees pollinate coffee flowers
 - (iv) A goat unit to the coffee plantation.
Goat dung fertilize coffee plantation
- (e) Mention any **one** danger of the apiary to the goat unit.
Bees may sting goats
- (f) Give any **one** way in which the farmer can control goats from disturbing the apiary.
- **Fencing the apiary** – putting a strong fence around the beehives keeps goats away.
 - **Tethering goats** – tying goats in a different place prevents them from reaching the hives.
 - **Building the apiary on raised stands** – lifting hives above the ground makes them hard for goats to reach.
 - **Separating grazing areas** – keeping goats in a different part of the farm away from the apiary.

46. The diagram below shows experiments that were carried out on how light travels. Use them to answer the questions that follow



- (a) Identify the experiment in which the observer was able to see light.
Experiment N
 - (b) State the principle of light demonstrated in the experiments above.
Light travels in straight line
 - (c) Explain how the principle in (b) above results in the formation of shadows.
Shadows form when an opaque object block the path of light.
47. The diagram below shows part of the process of charcoal making. Use it to answer the questions that follow.



(a) State the reason for covering the wood with soil in the above process.

- **To limit air supply** – soil prevents too much oxygen from reaching the wood, so it burns slowly instead of turning to ash.
- **To retain heat** – soil keeps the heat inside, helping the wood turn into charcoal.
- **To control the burning process** – covering ensures the wood carbonizes properly.
- **To protect from wind and rain** – soil shields the burning wood from weather that could spoil the process.

(b) State any **one** danger of the above activity to environment.

(c) Identify any **two** ways the above activity can be controlled in a community.

48. (a) State any **two** reasons why rubbish from our homes should be sorted before disposing it to the garden

- (i) **To separate harmful waste** – dangerous items like plastics, glass, or metals can harm the soil and plants.
- (ii) **To improve composting** – organic waste like food remains and leaves can rot easily to make manure.
- (iii) **To protect the environment** – sorting prevents pollution of soil and water.
- (iv) **To recycle useful materials** – items like bottles or tins can be reused instead of being thrown away.
- (v) **To keep the garden safe** – removing sharp objects prevents injuries to people and animals.

(b) Mention any **two** ways of keeping yourself safe while sorting rubbish at home.

- (i) **Wear gloves** – to protect your hands from sharp or dirty objects.
- (ii) **Use closed shoes/boots** – to avoid injuries from broken glass or metals.
- (iii) **Wash hands after sorting** – to remove germs and dirt.
- (iv) **Handle sharp objects carefully** – separate them from other rubbish.
- (v) **Avoid touching face** – while sorting to prevent germs from entering the body.
- (vi) **Work in a clean area** – to reduce risk of infection.

49. (a) State any **two** ways you can use to control common sickness at home.

- (i) **Keeping the home clean** – sweeping, mopping, and removing rubbish to prevent germs.
- (ii) **Eating balanced meals** – good food strengthens the body against sickness.
- (iii) **Boiling drinking water** – makes it safe and free from germs.
- (iv) **Washing hands regularly** – especially before eating and after using the toilet.
- (v) **Sleeping under a mosquito net** – prevents malaria.
- (vi) **Exercising and resting well** – keeps the body strong and healthy.
- (vii) **Avoiding overcrowding** – reduces the spread of diseases like cough and flu.

(b) Give any **two** ways through which juvenile delinquency can be controlled in a society.

- (i) **Good parenting** – parents guiding children with love and discipline.
- (ii) **Providing education** – keeping children in school to learn and stay busy.
- (iii) **Creating recreation activities** – sports, clubs, and games to keep youth engaged positively.
- (iv) **Counseling and guidance** – helping young people manage challenges and emotions.
- (v) **Law enforcement** – ensuring rules are followed and wrong behavior is corrected.
- (vi) **Community involvement** – elders and leaders working together to support and monitor youth.

50. (a) Name **one** material excreted by the lungs in humans.

Carbon dioxide

(b) State **one** way through which shivering helps to regulate body temperature

Generates heat

(c) Explain how each of the following practices helps in caring for the skin.

(i) wearing clean loose clothes

Protect it from germs

(ii) smearing with Vaseline

Prevent drying

51. (a) State any **two** uses of the sun as an energy resource.

- (i) **Drying crops and clothes** – farmers and families use sunlight to dry food and clothes.
- (ii) **Providing light** – sunlight helps people see during the day without lamps.
- (iii) **Solar power** – the sun’s energy can be changed into electricity using solar panels.
- (iv) **Heating water and houses** – sunlight warms water and buildings naturally.
- (v) **Supporting plant growth** – plants use sunlight to make food through photosynthesis.

(b) State any **one** reason why fire extinguishers are commonly painted red.

- (i) **Easy to see** – red is a bright color that stands out, especially in emergencies.
- (ii) **Symbol of danger and fire** – the color reminds people of fire, making it clear what the extinguisher is for.
- (iii) **Quick identification** – in a building or workplace, red helps people locate extinguishers fast.
- (iv) **International standard** – many countries use red to make fire safety equipment uniform and recognizable.

(c) State **one** way in which soil is useful in putting out fire.

- (i) **Soil cuts off air supply** – when soil is poured on fire, it blocks oxygen, which is needed for burning.
- (ii) **Soil cools the fire** – it absorbs heat and reduces the flames.
- (iii) **Soil covers burning material** – this prevents the fire from spreading further

52. (a) Give any **one** example of a good conductor of heat.

Metals and metal items such as copper and aluminium

(b) Mention any **one** way in which heat transfer by radiation is important to;

(i) plants: supplies energy for photosynthesis, warm the plant

(ii) animals: warm animals

(c) Explain how the silvery walls of a thermos flask keep the hot liquid in the flask

hot: reflect heat back the contents

53. (a) State the reason why a person suffering from HIV/AIDS is easily attacked by other diseases.

Has reduced immunity because their white blood cells are destroyed.

(b) Mention any one effect of HIV/AIDS on a community.

(i) **Loss of manpower** – many people become too weak to work, reducing productivity.

(ii) **Increase in poverty** – families spend money on treatment and lose income when members fall sick.

(iii) **Breakdown of families** – children may lose parents and become orphans.

(iv) **High medical costs** – communities spend more on health care.

(v) **Stigma and discrimination** – affected people may be rejected or treated unfairly.

(vi) **Slow development** – with fewer healthy workers, community projects and progress are delayed.

(d) Give any **two** ways of caring for a person living with HIV/AIDS.

(i) **Show love and respect** – treat them kindly without discrimination.

(ii) **Provide balanced meals** – good food helps strengthen their body.

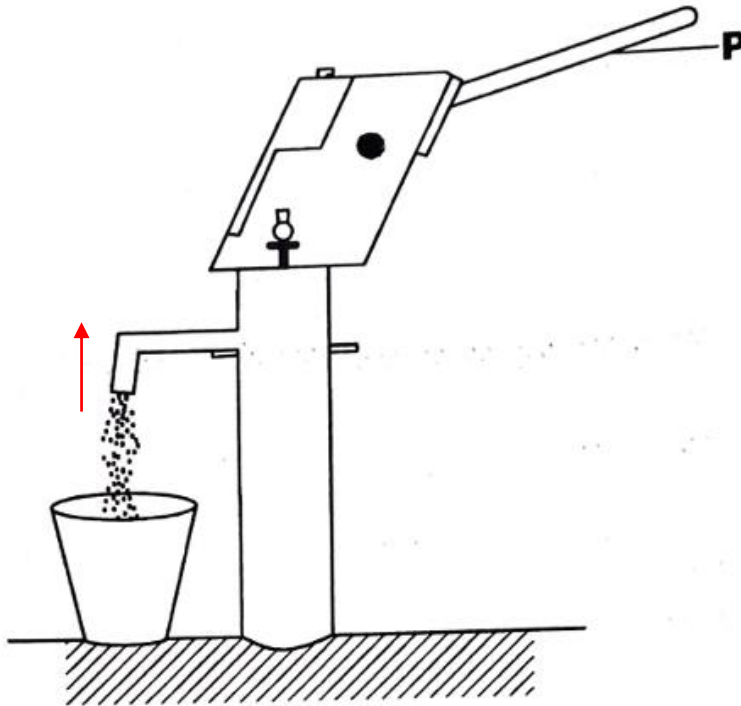
(iii) **Encourage regular medical check-ups** – so they can get proper treatment and advice.

(iv) **Keep the home clean** – to reduce chances of infections.

(v) **Offer emotional support** – listen to them and give encouragement.

(vi) **Avoid sharing sharp objects** – like razors or needles, to prevent spreading the virus.

54. The diagram below is of a simple machine. Use it to answer the questions that follow.



- (a) Name the class of lever to which the above machine belongs
Second
- (b) Using an arrow, show the direction of the load when effort is applied to the part labelled P.
- (c) State any **two** ways through which the efficiency of the above simple machine can be increased.
- (i) **Regular maintenance** – repairing broken parts like handles and pipes.
 - (ii) **Lubricating moving parts** – oiling the handle and joints to reduce friction.
 - (iii) **Keeping the borehole clean** – preventing dirt from entering the water system.
 - (iv) **Training users** – teaching people how to pump correctly without damaging the borehole.
 - (v) **Protecting the borehole area** – fencing to keep away animals and prevent misuse.
 - (vi) **Using quality spare parts** – replacing worn-out parts with strong, durable ones.

55. (a) Give any **one** cause of burns at home.

- (i) **Hot cooking pots and stoves** – touching them can burn the skin.
- (ii) **Boiling water or tea** – spilling it causes burns.
- (iii) **Open flames** – from candles, charcoal stoves, or firewood.
- (iv) **Hot electric appliances** – like irons or kettles.
- (v) **Chemicals** – some cleaning liquids can burn the skin if touched

(b) Mention any **one** way in which cuts can be prevented in a school.

- (i) **Keep the school compound clean** – remove broken bottles, tins, and sharp objects.
- (ii) **Handle tools carefully** – use scissors, knives, and razor blades properly under supervision.
- (iii) **Store sharp objects safely** – keep them in cupboards or locked rooms.
- (iv) **Avoid running in classrooms or corridors** – to prevent accidents with sharp edges.
- (v) **Maintain furniture** – repair broken desks and chairs with sharp edges.
- (vi) **Teach safety rules** – guide pupils on how to use school materials safely.

(c) Name any **two** responsibilities of first aider.

- (i) **Give immediate help** – provide quick assistance to the injured or sick person.
- (ii) **Protect life** – act to save the person from danger and keep them alive.
- (iii) **Prevent the condition from worsening** – stop bleeding, cover wounds, or move the person away from harm.
- (iv) **Call for medical help** – inform doctors, nurses, or take the person to hospital.
- (v) **Offer comfort and reassurance** – keep the injured person calm until professional help arrives.

Thank You

Dr. Bbosa Science