

THE DREAM EDUCATION CONCERN

"Quest for excellence"



PRE-PRIMARY LEAVING EXAMINATION

SET FIVE: 2024

OFFICIAL MARKING GUIDE FOR INTEGRATED SCIENCE



A PRODUCT OF THE DREAM EDUCATION CONCE REACH US ON 0764873958/0778069610/0759380519 FOR ALL EXAMINATIONS FROM BABY TO P

THE DREAM PUBLISHERS OF QUALITY ASSESMENTS, WORKBOOKS, COMPANION BOOKS, PLE REVISIONBOOKS, HOLIDAY PACKAGES, TEACHER'S TRAINING, CUSTOMISED HOLIDAY PACKAGES, REPORT CARD PRINTING AND OFFLINE SCHOOL MANAGEMENT SYSTEM

TURN OVER

SECTION A (40 MARKS)

	SECTION A (40 MARKS)				
NO	RESPONSE AND RELATED CONTENT C				
1				P5	
	Crops	Disease	Affected part	1	
	Cassava	Cassava mosaic	leaves	1	
	Cotton	Bacterial blight disease]	
	Cabbage	Black rot disease	leaves		
	-Pests dama -Reduce on the -Cause deca	pests to crop farmers age farmer's crops the crop yield ay of root crops ey to control them			
2	-Waste money to control them What kind of change takes place when ice melts to form water? Physical change Related content Energy is the ability to do work Forms of energy -Heat energy -Sound energy -Electric energy -Chemical energy -Solar energy Characteristics of forms of energy -They can make work possible -Energy can be changed from one form to another Potential energy is the energy that is stored by object at rest Kinetic energy is the energy possessed by object in motion Effects of heat energy -Heat makes matter expand			P5	

	-Heat cause sublimation	
	-Heat cause change in state of matter	
	-Heat cause evaporation	
1	Effects of heat on the following	
	(a) Ice	
	-When heated it expands	
	-The volume increase	
	-The density increase	
	-The mass remains the same	
3	How can you increase milk production in a diary cow?	P6
	By steaming up	
	Related content	
	Diary breeds	
	These are breeds kept mainly for milk production	
	Characteristics of diary cattle	
	-They have higher milk production	
	-They have triangle body shape	
	-They have four medium teats	
	-They have small necks	
	-Their hind quarters are wide	
	Examples of diary breed of cattle	
	-Guernsey	
	-Jersey	
	-Ayrshire	
	-Sahiwal	
	Structural appearance of a diary breed of cattle	
	20	
	Beef cattle	
	This is the type of cattle kept mainly for beef production	
	Characteristics of beef breed cattle	
	-They have small heads	
	-They mature faster	
	-They have short legs	
	-They have rectangular or block body shape	
	Examples of beef cattle	
	-Boran	
	-Charolais	
	-Aberdeen Angus	

	Diagrammatic illustration of a beef cattle	
	, w	
	Types of breeding in cattle	
	-Inbreeding	
	-Outbreeding	
	-Up grading	
	-Cross breeding	
4	Give any one reason for making alloys.	P6
	-To lower the melting point of metals	
	-To increase the electric resistance on metals	
	-To make the metals more resistant to corrosion ie wear and tear	
	Related content	
	An alloy is a mixture of two or more metals	
	Example of alloys	
	-Brass	
	-Bronze	
	-Dentist amalgam	
	-Gold	
	-Steal and Nickle	
	Fuel is anything that can burn and produce heat	
	Examples of fuel	
	-Oil	
	-Fire wood	
	-Coal	
	-Charcoal	
	Fossils fuel	
	These are fuel formed from dead plants and animal remains	
	Examples of Fossils fuel	
	-Oil	
	-Coal	
	Uses of brass (mixture of Copper and Zinc)	
	-For tubing cases for bullets	
	-For making cables and electric wires	
	-For decorating ornaments	
_	Note: When coal is burnt, it produces thermal electricity	D.C.
5	Give one reason why animals move from one place to another.	P 6
	-Animals move to search for food	
	-Animals move to search for breeding grounds	
	-Animals move to search for water	

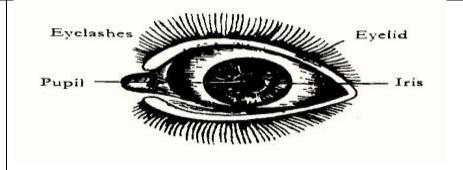
	Related content	
	Groups of animals	
	-Vertebrates	
	-Invertebrates	
	Vertebrates: Are animals with back bone	
	Vertebrates: Are animals with vertebral column	
	Classes of vertebrates	
	-Mammals	
	-Birds	
	-Fish	
	-Reptiles	
	-Amphibians	
	Note: For quick remembering, use MBRFA	
	M – My (Mammals)	
	B – Brother (Birds)	
	R – Repeated (Reptiles)	
	F – Fighting (Fish)	
	A – Absenteeism (Amphibians)	
	Characteristics of mammals	
	-Mammals are warm blooded	
	-They have fur on their bodies	
	-They feed their young ones on breast milk	
	-They breathe through the lungs	
	Groups of mammals	
	-Lagomorpha	
	-Flying mammals	
	-Ungulates	
	-Carnivorous	
	-Pouched mammals	
<u> </u>	Give one factor considered when choosing a site for an apiary.	P5
	-Should be a quite place	
	-Should be a way from school	
	-Should be under shade	
	-Should be smoke free environment	
	-Should be away from bad smell	
	Related content	
	Apiculture	
	Apiculture refers to the keeping and management of bees	
	An apiary is a place where bee hives are kept	
	Or is a farm of bees	
	Note: A drone bee dies immediately after the wedding fight	
	Due to loss of its reproductive organ / truct during mating	İ

A wedding flight is a flight during which the drone bees mate the queen bee Swarming is the movement of bees from one place to another to look for a new hive Reasons why bees swarm -Due to over crowding -Due to dumpness in the hive -Lack of flowering plants around the hive -Due to bad smell near the hive / inside Roles of a queen bee -To lay eggs Roles of a drone bee To mate with the queen bee Roles of a worker bee -To guard the hive -To collect nectar -To clean the hive	
To feed the queen bee on royal jelly Give one way in which animals are important in the process of photosynthesis. -Animals produce carbon dioxide which is an essential gas for	P6
photosynthesis -Animals produce carbon dioxide used as a requirement during photosynthesis	
A freely suspended bar magnet will always rest with its poles facing in the north-south direction Related content Magnetic field A magnetic field is an area around a magnet where forces of a magnetism act. Neutral point A neutral point is a point where magnetic force due to two magnets is zero	P7

	Methods of making a magnet	
	-Stroking or touch method	
	-Induction method	
	-Electrical method	
	Groups of stroking method	
	-Single touch method	
	-Double touch method	
9	Why is a maize grain grouped under monocotyledon seeds?	
	It has only one cotyledon	
	Related content	
	Monocotyledonous seeds are seeds with one cotyledon	
	Examples of monocotyledons	
	-Maize grain	
	-Millet	
	-Sorghum	
	Characteristics of monocotyledonous seeds	
	-They have one cotyledon	
	-They store their food in the endosperm	
	-They undergo hypogeal germination	
	Dicotyledonous seeds	
	These are seeds which have two cotyledons	
	Characteristics of dicotyledonous seeds	
	-They have two cotyledons	
	-They undergo epigeal germination	
	-They store their food in the endosperm	
10	What is the use of gills in a mushroom	P5
	-Produces spores	1.5
	-Store spores	
	Note reject for breathing.	
	Related content	
	Note; Some learners always confuse the use of gills in a fish and	
	that of a mushroom, so teachers should tell the learners that	
	though they are both called gills, the one for a fish is used for	
	breathing and the one for mushroom is used to store spores and	
	produce spores	
	Importance of mushrooms	
	-Mushrooms are eaten as food	
	-Some are sold to get money	
	-Mushrooms are used for study purpose	
	-Most fungi, reproduce by means of spores unlike yeast which	
	produce by budding	
	Dangers of harmful fungi	
	-Cause food poisoning	

	-Some make food to go bad like moulds	
	Examples of fungal diseases in animals	
	-Ring warm cause food poisoning	
	-Athletes foot (attacks the foot between the toes)	
	-Oral thrus caused by candida	
	-Fingers nail deformation	
	Examples of fungal diseases in plants	
	-Blast will	
	-Potatoes blight	
	-Smuts	
	-Black rust fungus	
	How to control dangers caused by harmful fungi	
	-Boil milk and water before drinking	
	-Salting the food	
	-A void eating uncovered food	
	-Spray plants with fungicides	
	The diagram below is of a flower, use it to answer the question	P4
	that follows.	
	X	
	Pleal Z	
	1+	
11	What does the part labelled Y become after fertilisation?	
	A fruit	
12	Name the part marked M.	
	filament	
13	What is the use of part marked X to the flower?	
	-To attract insects during pollination	
	-To protect the inside part of a flower	
	Related content	
	What happens to the following parts after fertilisation.	
	-Ovules become seeds after fertilisation	
	-The ovary develops into a fruit	
	-The petals, sepals and stamens fall off after fertilisation	
	-The pistil remains attached to a plant after fertilisation	
	-The zygote divides and develop with an embryo and the ovules	
	develop into seeds	
	A flower is a reproductive part of a plant	
	a the grant of the	

14	-The pistil is the female part of a flower It has the following parts; stigma, style and ovary -The stamen is the male part of a flower It has the following parts; Anther and filament Pollination is the transfer of pollen grains from the anther to the stigma of a flower Types of pollination -Cross pollination -Self pollination Difference between self and cross pollination Self pollination is the transfer of pollen grains from the anther of one flower to the stigma of the same flower or different flower on the same plant while cross pollination is the transfer of pollen grains from the anther of one flower to the stigma of another flower or different plants but the same kind. Give any one characteristic of image formed on a plane mirrorThe image is real -The image formed is inverted -The image is diminished (smaller than the real object) Related content Reasons why a pinhole camera forms real objects -The images are formed from real light rays Reasons why images formed from a pinhole camera appear inverted Light travels in a straight light Functions of different parts of a lens camera -Film: Its where the inverted image is formed -Diaphragm: To control the amount of light entering in a camera.	P7
	-The image is diminished (smaller than the real object) Related content Reasons why a pinhole camera forms real objects -The images are formed from real light rays Reasons why images formed from a pinhole camera appear inverted Light travels in a straight light Functions of different parts of a lens camera -Film: Its where the inverted image is formed	
	-Focusing ring: To adjust the distance between the lens and the film -Shutter: To expose the film to light Characteristics of images formed in a pinhole camera -The image formed is real -The image formed is inverted -The image is diminished Parts of a human eye	



Functions of some parts of a human eye Eye lid

- -The eyelid protects the eye by covering it
- -The eyelid uncovers the pupil to allow light into the eye

Eye lashes

-The eye lashes prevent foreign bodies from entering into the eye NOTE: Foreign body refers to materials which enters our body accidentally and cause harm

Eye brows

The eye brows prevent sweat from flowing into the eye

Pupil: It allows light into the eye

Iris: Controls the amount of light entering into the eye

Conjunctiva: Is a thin membrane that covers and protect the

cornea

15 Suggest any one reason why people drink alcohol.

- -To pass time
- -For socialisation
- -To get sleep
- -To avoid much thinking
- -Relaxation and stress reduction
- -Cultural and ritualistic reasons
- -Peer pressure
- -Curiosity and experimentation

Related content

Alcoholism is the condition where an individual depends on alcohol for normal body functioning

Effects of alcohol to an individual

- -It causes memory impairment
- -It causes poor co-ordination
- -Reduced inhabitation
- -It can cause dehydration
- -It can cause nausea and vomiting

Effects of alcohol to a family

-Leads to family neglect

	-It leads to poverty in a family	
	-It causes violence in homes	
	-It can cause spouse and children abuse	
	-It leads to bad behaviour among children	
16	Mention one disease which makes a person to pass out watery	P4
10	stools with blood.	1 4
	Dysentery	
	Related content	
	Communicable diseases	
	These are diseases which can spread from one person to	
	another	
	Examples of communicable diseases	
	-Measles	
	-Diarrhea	
	-Bilharzia	
	-Dysentery Diarrhea	
	1 - 1011 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	Diarrhea is the passing out of watery stools	
	Examples of diarrhea diseases	
	-Dysentery -Cholera	
	-Typhoid	
	Dehydration Dehydration is the condition of the body when it does not have	
	Dehydration is the condition of the body when it does not have	
	enough water in it	
	Causes of dehydration	
	-Severe diarrhea	
	-Severe vomiting	
	Signs of dehydration	
	-Sunken eyes	
	-Dry lips	
	-Dry eyes	
	-Sunken soft spot of baby's head	
	How to prevent diarrhea diseases	
	-Left overs should be covered	
	-Washing hands before eating food	
	-Washing hands after visiting the toilet	
	-Proper disposal of feaces in the latrines	
	-Washing fruits and vegetables before eating them	
	Treatment of dehydration	
	-Giving the victim Oral Rehydration Solution (ORS)	
	-Drinking a lot of fluids	
	Which bacteria causes typhoid fever?	

	It is caused by bacteria called salmonella typhi			
	Signs and symptoms of typhoid			
	-Abdominal pain			
	-Body temperature			
	-Headache			
	-Discomfort			
17	State the difference between mass and volume.	P5		
	Volume is the space occupied by matter while mass is the			
	quantity of matter in a substance			
	Related content			
	Irregular objects			
	-These are objects which do not have regular shape			
	-These are objects which do not have specific shape			
	-Displacement method is the method which is used to find volume			
	of irregular objects			
	-Weight is the external force extended on objects by the earth			
	-The standard unit of weight is Newton			
	Difference between mass and weight			
	Mass does not change place to place while weight change			
	Mass is the amount of matter a body contains while weight is the			
	force of gravity extended on an object			
	Sample calculation on density			
	Density is the mass per cubic volume of a substance			
	Find the density of an object with mass of 400gm and volume 20C			
	Density = mass =D = D = 400			
	Volume V 20			
	Density = 20g			
18	Give any one way how wind is used as a resource.	P7		
	-Wind is used in winnowing	• •		
	-Wind is used to sail boats			
	-Wind is used to turn wind mills			
	-Wind is used to fly kites			
	Related content			
	Energy resources			
	These are things that provide people with useful energy			
	Examples of energy resources			
	-Plants			
	-Animals			
	-Wind			
	-Sun			
	-Sun -Fossils			
	Types of energy resources			
	Types of effergy resources			

- -Renewable resources
- -Non-renewable resources

Renewable energy resources

These are resources which provide useful and can be replaced once used up

Examples of renewable energy resources

- -Plants
- -Wind
- -Animals
- -Water
- -Sun

Non-renewable energy resources

Non-renewable energy resources are things which provide useful energy to people and can not be replaced naturally when used up

Examples of non-renewable resources

- -Minerals
- -Fossils

Beasts of Budden

Beasts of Budden are animals which provide us with cheap labour force

Examples of beasts of Budden

- -Oxen
- -Donkeys
- -Camels

Ways of conserving animals

- -Proper feeding of animals
- -Treating sick animals
- -Vaccinating animals
- -Gazetting animals in game parks

Reasons why a biogas digester is tightly sealed

-To prevent the entry of oxygen

Uses of a biogas

- -For cooking
- -For lighting
- -For heating

Advantages of a biogas digester

- -Biogas is cheap
- -Biogas does not pollute the environment
- -Materials for making biogas are readily available

An effluent

An effluent is a liquid substance obtained after production of biogas

Slurry

Slurry is a mixture of dung and water that enters a biogas plant in a semi liquid form

Sludge

Sludge are waste materials removed from biogas digester

19 What are enzymes?

n

P5

Enzymes are chemical compounds which spread up digestion Related content

Characteristics of enzymes

- -Enzymes are proteins in nature
- -An enzyme always forms the same end product
- -Enzyme are destroyed by heat
- -Enzymes act in particular conditions ie acidic or alkaline Enzymes the parts of the body they are found and the food they act on

E	nzymes	Food acted upon	Body part	
1	Salivary amylase	cooked starch	mouth	
2	Pepsin	digest proteins	stomach	
3	Pennin	clots milk in the babies to separate fats from proteins	stomach	
4	pancreatic amylases	digests starch skipped from the mouth	pancreas	
5	Matose	breaks maltose glucose	ileum	
6	Lactose	breaks down lactose to glucose and glutose		

- -Digestive system is the system of the body which work to digest food
- -Digestion is the process by which food is broken down into soluble substances which can be absorbed into the blood stream Alimentary canal

An alimentary canal is a muscular tube that runs from the mouth to the arms

Peristalsis

This is the movement of food from the in-bolus form from the mouth through the gullet to the stomach

Uses of different parts of the digestive system The tongue

-It rolls food into bolus form for easy swallowing

-It is used for tasting -It pushes food into the gullet Saliva -It has mucus which lubricates food -It has an enzyme called salivary amylase or ptyalin which breaks starch into maltose The duodenum -Is the first section of small intestines -It is used to receive bile juice and pancreatic juice through the pancreatic duct The ileum -It is where absorption of food takes place -It is where digestion of food ends Adaptation of small intestines to their function -It has large surface area made of villi and micro villi -It has a lot of blood capillaries which allow the transportation of blood molecules all over the body Large intestines This is where absorption of water and mineral salts take place **Disorders of digestion** -Constipation -Indigestion **Causes of indigestion** -Over eating -Improper food chewing Diseases of the digestive system -Appendicitis -Cholera -Typhoid -Dysentery **Note:** Most pupils tend to fail understanding the difference between digestive disorder and the diseases which affect the digestive system, so we please use the above to explain the difference Which part of a human tooth contains blood capillaries and nerve 20 endings? **Pulp cavity** Related content Types of teeth and their uses (a) Incisors These are used for cutting food (b) Canines They are used for tearing food

	(c) Premolars	
	They are used for grinding and crushing food	
	(d) Molars	
	They are used for chewing and crushing food	
	Functions of parts of the tooth	
	(1) Enamel	
	-This is used to protect wear and tear of the tooth	
	-It protects the inner parts of the tooth	
	(2) Dentine	
	-It keeps replacing the enamel as it may wear and tear due to	
	friction	
	(3) Pulp cavity	
	-It contains blood vessels and sensory nerves	
	(4) Cement	
	-It fixes the tooth in position	
	-It protects the tooth	
	(5) Jaw bone	
	It holds the tooth in one position	
	(6) Gum	
	This gives extra support to the teeth	
	Diseases of the teeth	
	-Tooth decay	
	-Improper growth of teeth	
	-Broken teeth	
	-Gingivitis	
	Dangers of improper tooth growth	
	-Difficult in chewing	
	-Lip biting	
	Ways of caring for our teeth	
	-Brushing teeth after every meal	
	-A void eating to much sweets	
	-Dental flossing	
	The diagram below shows a glass with water and a straight	P7
	pencil in it study it to answer question 21	
	<i>[</i> ::/ <i>[</i> ::]	
24	What agues the above penall to appear bent?	
21	What causes the above pencil to appear bent?	

Refraction of light rays moving from air (lighter medium) into water

Related content

Refraction is the bending of light rays

Mirage

Is an optical illusion caused by the bending of light rays due to layers of air having different densities and temperature

Note: Sheet of water seen on a high way during a hot day, it appears like a pool of water seen a head on a road on a hot day is due to mirage

Effects of mirage

- -Mirage may lead to accidents on high ways
- -Mirage cause false images along high ways in deserts

Uses of lenses

- -Lenses are used in photographic cameras
- -Lenses are used in microscopes by doctors to see germs

Uses of magnifying glasses

Optical instruments

Optical instruments are instruments which use other lenses, prism, plane mirrors or curved mirrors

Examples of optical instruments

- -Cameras
- -Microphones
- -Spectacles
- -Magnifying glasses
- -Telescope
- -Binoculars
- -Projectors

Dispersion of light

Dispersion of light is the splitting of white light into several colours of spectrum

Primary colours

These are colours that can not be obtained by mixing other colours

Secondary colours

These are colours which are made by mixing two primary colours

The seven colours of a rainbow

- -Red
- -Orange
- -Yellow
- -Green
- -Blue
- -Indigo

	$F = (20 \times \frac{5}{9}) + 32^{\circ}$	
	$F = (36) + 32^{\circ}$	
	F = 36 + 32	
	F = 68°	
	Changing from Fahrenheit to Celsius	
	Example; Change 68°F to C	
	$C^{\circ} = (F - 32) \times \frac{5}{9}$	
	$O = (1 - 32) \times_{9}$	
	$C^{\circ} = (68 - 32) \times \frac{5}{9}$	
	$C^{\circ} = (36) \times \frac{5}{9}$	
	7	
	$C^{\circ} = (\frac{180}{9})$	
	$C^{\circ} = 20^{\circ}$	
	So, 68°F = 20°C	
23	Give one reason why parents should take their children for	P5
	immunisation.	
	-To avoid being attacked by diseases	
	-To avoid being attacked by immunisable diseases	
	Related content	
	-Immunisation is the administration / introduction of vaccines in	
	the body to cause immunity	
	-Is the way of putting vaccines in the body to cause immunity Types of immunity	
	-Artificial immunity	
	-Natural immunity	
	How people acquire Natural immunity	
	-After recovering from diseases on illness	
	-Eating a balanced diet and develop as a result of infection	
	-Through breast feeding from the mother to the baby through	
	placenta	
	Immunity	
	Immunity is the ability of the body to resist disease causing	
	germs	
	Natural immunity	
	Natural immunity is the type of immunity a baby or a person gets without introduction of vaccines	
	Artificial immunity Artificial immunity is the type of immunity a baby or a person	
	receives through receiving vaccines in the body	
	Importances of immunity to the body	
	-Protects us from being affected by diseases	

	-Boasts our immune system	
	The eight killer diseases	
	-Polio	
	-Measles	
	-Diphtheria	
	-Whooping cough	
	-Tuberculosis	
	-Tetanus	
	-Hepatitis B	
	-Influenza B	
24	State one reason why distilled water not good drinking yet is said	P6
	to be safe water.	
	Distilled water does not contain mineral salts	
	Related content	
	Uses of distilled water	
	Used by doctors and chemist in mixing drugs for injection	
	Examples of minerals found in water	
	-Calcium	
	-Sodium	
	-Fluoride	
	-Decanted and filtered water appears clean but it's not good for	
	drinking because it has germs	
	-Water pollutants or impurities are substances which when	
	added to water can change its natural quality	
	-Flowing water possess Kinetic energy coz it's a body in motion	
	Effects of silting on water bodies	
	-Reduces the depth of water bodies	
	-Leads to flooding of surrounding areas	
25	In which way is a person who is suffering from HIV different from	
	a person who has developed AIDS?	
	A person with HIV shows no sign of AIDS and looks healthy while	
	a person who has just developed AIDS has signs and symptoms	
	Related content	
	Signs and symptoms of AIDS	
	-Loss of weight	
	-Persistent fever	
	-Itching body rash	
	AIDS in full	
	Acquired Immunodeficiency Syndrome	
	HIV in full	
	Human Immunodeficiency Virus	
	Ways of controlling HIV	
	-Abstaining from sex	

	Audid beging up protected cay	
	-Avoid having un protected sex	
	-Use condoms	
	-Avoid sharing of sharp instruments	
	Ways of managing HIV	
	-Taking medicines daily	
	-Getting medical care as soon you found out being infected	
	-Let your provider know if you find out that you have new	
	symptoms	
26	Explain why sand soil cannot retain water like clay soil.	P3
	-Sand soil has bigger particles than clay soil	
	-Sand soil has wide spaces between particles	
	Related content	
	Characteristics of clay soil	
	-It has smallest particles	
	-It is sticky	
	-Its particles are closely packed	
	-It has little humus	
	(NB) Clay soil is commonly used for modelling	
	Characteristics of sand soil	
	-It has biggest particles	
	-It has enough particles	
	-Particles are loosely particles	
	-it drains water quickly	
	Reasons why loam soil is the best soil for crop growing	
	-Loam soil is well aerated	
	-Loam soil is well drained	
	-It contains balanced particles of sand and clay soil	
	-Loam soil has humus	
	Characteristics of loam soil	
	-It is a mixture of sand and clay soil	
	-It is dark in colour	
	-It has a lot of humus	
	Weathering	
	This is the process by which rocks break down into small	
	particles to form soil	
	Agents of weathering	
	-Animals	
	-Strong wind	
	-Earth quake	
	-Plants	
	Soil profile	
	Soil profile is the vertical arrangement of soil layers from the top	
	to the bottom	

27	State one agent which is responsible for dispersing mango	P6
	seeds.	
	-Animals	
	-People	
	-Birds	
	Related content	
	Seed dispersal	
	Seed dispersal is the scattering or spreading of seeds or fruits	
	from the mother plant to other areas	
	Agents of seed dispersal	
	These are things that scatter seeds and fruits from mother plants	
	to other areas	
	Methods of seed dispersal	
	-Animal dispersal	
	-Explosive mechanism (self dispersal)	
	-Water dispersal	
	-Wind dispersal	
	Examples of seeds dispersed by animals	
	-Mango	
	-Tomato	
	-Black jack	
	Examples of seeds dispersed by wind	
	-Jacaranda seeds	
	-Dandelion seeds	
	Explosive mechanism	
	This is the type of dispersal where the fruit ripen, dries and	
	explodes /burst with force and seeds are scattered in different	
	areas	
	Examples of seeds dispersed under explosive mechanism	
	-Cow pees	
	-Black beans	
	-Castor oil	
	-Acacia	
28	How is absence of lodine harmful to our bodies?	
	It is harmful by causing goitre	
	Related content	
	Symptoms of goitre	
	-Neck vein swelling	
	-A lump in front of the neck	
	-Hoarseness	
	-Dizziness when one raises hands above the head	
29	In one way, state how a pool of water near our homes may	
	become a source of malaria.	

	Mosquitoes lay and breed in such stagnant water that increases mosquitoes and hence malaria spreading at high speed Related content Ways of controlling malaria spread in our homes -Slashing away all the bushes around our homes -Draining away all stagnant water -Pouring oil on all -Sleeping under mosquito nets Reasons why a male anopheles' mosquito does not cause malaria A male anopheles' mosquito does not feed on blood but nectar			
30	Identify the type of brooder shown in the diagram below.	P5		
	Infra-red Lamp brooder			
	Infra-red Lamp brooder Related content			
	A brooder is a special structure where chicks below eight (8)			
	weeks			
	Types of brooders			
	-Infra-red Lamp brooders			
	-Kerosene Lamp brooders			
	-Charcoal brooders			
	-Hot water brooders			
	-Gas brooders			
	Characteristics of Infra-red lamp brooders			
	-Chicks are safe			
	-Chicks are given enough water and food			
	-Warmth is fully provided Chicks are protected from parasites and diseases			
	-Chicks are protected from parasites and diseases Disadvantages of Infra red Jamp broaders			
	Disadvantages of Infra-red lamp brooders -It is expensive to buy			
	-There can be food poisoning			
	-This system can not be used in places where there is electricity			
	-It is difficult to control diseases out break			
31	State any one reason why human beings breathe in.			
	To provide the body with oxygen for respiration			
32	Give one cause of poisoning in our communities.			
	· •			

	Taking avained days	
	-Taking expired drugs	
	-Eating expired food	
	-Ignorance	
	-Taking over dose	
	-Poor storage of drugs	
	Related content	
	Examples of poisons in our community	
	-Rat poison	
	-Liquid clears eg Jik	
	-Petrol	
	-Diesel	
	-Paraffin	
	Signs and symptoms of poisoning	
	-Vomiting	
	-Rapid breathing	
	-Mental confusion	
	-Fever and sweating	
	-Internal and external bleeding	
	Poison	
	Poison is any substance which affect health or cause death when	
	taken	
	Study groups of animals below and answer questions 33 and 34	
	, , , , , , , , , , , , , , , , , , ,	
	Snail, Slugs, Worms, Star fish, Sea urchins	
33	Which type of skeleton are the above animals having?	
	Hydrostatic skeleton	
34	Define the above named type of skeleton.	
	A hydrostatic skeleton is the type of skeleton where the body of	
	an animal is filled with fluids in pressure	
	Related content	
	A skeleton	
	A skeleton is the structure that supports the body of an animal	
	Functions of a skeleton	
	-The skeleton gives the body shape	
	-The skeleton provide room for muscle attachment	
	-The skeleton provide support to the body	
	-The skeleton protects the delicate parts of the body	
	-The skeleton helps in body movement	
	Below are the skeleton parts which protect different delicate	
	parts	
	(a) The skull	
	-Brain	
	-Tongue	

	Even	
	-Eyes	
	-Middle and inner ear	
	(b) Back bone /spine /vertebral column	
	-Spinal coral	
	(c) Pelvis /Hip	
	-Reproductive organs	
	(d) Eye socket / orbit	
	-Eyes	
	Human skeleton	
	Human skeleton is the frame work of bones in the body	
	-Adults have 206 bones	
	-Babies have 300-305 bones	
	Reasons why babies have many bones than adults	
	-Babies are born with many cartilages which later join to form	
25	bones	D.7
35	What type of farming should a farmer use in order to harvest both	P7
	crops and wood	
	Agro-forestry	
	Related content	
	Agro-forestry is the growing of crops, keeping live stock and	
	planting trees on the same farm	
	Importances of Agro-forestry	
	-Trees planted in Agro-forestry are used as a source of wood fuel	
	-Agro-forestry promotes soil fertility	
	-Fruit trees and crops provide food to farmers	
	-Trees planted in Agro-forestry help in rain formation	
	Indigenous trees	
	These are trees whose origin is Africa	
	Examples of Indigenous trees	
	-Myule	
	-Jack fruit	
	-Musizi	
	-Enongo	
	Characteristics of Indigenous	
	-They produce hard wood	
	-They are resistant to harsh weather conditions	
	-They have low growth rate	
	-They form thicker canopies	
	Exotic trees	
	Exotic trees are trees which are introduced in Africa from out	
	side countries	
	Examples of Exotic trees	
	-Cypress	
_		

-Gingko -Pine -Cedar -Podo -Eucalyptus Characteristics of exotic types of trees -They have faster growth rate **Methods of harvesting trees** (a) Pollarding This is the cutting off of the tip or top of the tree Importances of pollarding -It encourages the branches below to grow thicker -When practiced on trees like mangoes, they produce more and better fruits (b) Lopping This is the cutting oof of the side branches from the trunks Importance of lopping -Mature branches are harvested as the tree continues to grow (c) Copping Is the cutting off the tree trunk of a tree leaving only a short stump to grow shoots (d) Selective felling of trees This is the cutting down of selected trees while others left to grow 36 Give the function of the micropyle to a germinating seed. **P4** -It allows in the earthly air into the germinating seed -It allows air and water into a seed during Related content Other parts of a seed and their functions Testa/Seed coat Plumule Cotyledon Radicle -It protects the inner parts of a seed Hilum/scar -It attaches the seed to the ovary /pod Cotyledon During germination in all dicotyledon seeds, the cotyledon provide food for the embryo

Radicle

It grows into the root system

Plumule

It grows into a shoot system

A seed is a fertilised ovule

37 Mention any one difference between the frog and toads.

- -Frogs breathe through their lungs and moist skins while toads breathe through their lungs
- -Frogs have smooth slippery skins while toads have warty rough skins
- -Tad poles of frogs are brown while toads are black
- -Frogs have fully webbed hind feet while toads have partly webbed feet.

Related content

Structural physical difference between eggs of a toad and a frog Eggs of toads



Eggs of a frog



Examples of Amphibians

- -Frogs
- -Toads
- -Mewt
- -Salamanders

Characteristics of amphibians

- -They are cold blooded
- -They reproduce by laying eggs
- -Amphibians are carnivores
- -Their eggs are usually laid in spawns
- -They have scaler skins

Invertebrates

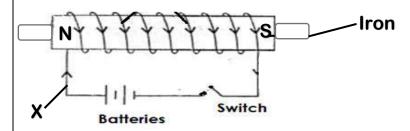
These are animals without a back bone

Classes of invertebrates

- -Coelenterates
- -Echinoderms

	-Sponges			
20	-Arthropods What is the function of the structure drawn below?	De		
38	What is the function of the structure drawn below?	P6		
	A			
	Admir			
	Vein			
	-It carries blood from the arteries to veins			
	Related content			
	Veins			
	-Veins carry blood from all other parts of the body to the heart			
	-The main is the vena cava			
	Characteristics of veins			
	-They have thin walls -Veins have wide lumen which allows blood to flow at low pressure Characteristics of Arteries -They transport blood away from the heart to the body			
	-All arteries carry oxygenated blood except pulmonary artery			
	-Arteries have an outer fibrous coat for strength and protection			
39	Give any one sign and symptom of kwashiorkor.	P4		
	-Swollen stomach			
	-Brown hair			
	-A child does not want to eat			
	-A child gets anaemia			
	-The child gets diarrhea			
	Related content			
	Kwashiorkor is caused by lack of proteins in the body			
	Prevention and control of kwashiorkor			
	-Feed the child with food rich in proteins			
	-Take the child to hospital			
	Scurvy			
	Is a deficiency disease which is caused by lack of vitamin C in			
	the body			
	Signs of scurvy Rloading gums in the mouth			
	-Bleeding gums in the mouth			
	-Wounds do not easily heal			
	-The person becomes very weak			

	Prevention of scurvy		
	-Feed the person on foods rich in vitamin C		
	Use the diagram below to answer the questions below.		
	X		
40	Give the difference of what happens to muscle X and Y when the	P7	
+0	arm is straight.	• •	
	Muscle X relaxes while muscles Y contracts		
	Related content		
	Explanation for the above difference -Muscle X are biceps which relaxes while muscle Y are triceps which contracts when the arm is straight -Biceps are called flexor muscles because they bend the arm /leg -Triceps are called extensor muscles because they extend the muscle /stretches them		
	Involuntary muscles		
	Involuntary muscles are muscles whose movement is not under		
	our will		
	Characteristics of involuntary muscles		
	They work continuously		
	-They do not get tired quickly		
	-Their movement cannot be controlled		
	Examples of involuntary muscles		
	-Muscles of the stomach		
	-Muscles of the intestines		
	-Muscles of the eyelids		
	-Muscles of the reproductive system		
	SECTION B (60 MARKS)		
	,	==	
41	Study the diagram below and answer the questions that follows.	P7	



(a) Name the part marked X on the diagram above.

Conducting wire

- (b) Name the magnet made by using the electric method above. Electro magnet
- (c) State any one factor that determines the strength of an electro magnet
- -The amount of current used
- -The magnetic substance used
- -The number of turns in a coil
- (d) Suggest any one way of increasing the strength of an electro magnet.
- -By increasing the voltage
- -By increasing the number of turns in a coil

Related content

Electrical method is a method of making a magnet using electricity Demagnetisation

Demagnetisation is the way of making a magnet lose its magnetism Ways of demagnetising a magnet

- -By hammering a magnet
- -By heating a magnet
- -By leaving a magnet to rust
- -By keeping the magnet while facing East to west direction

Ways of keeping a magnet safe

- -Keeping a magnet in iron keepers
- -Painting magnets
- -Storing magnets with their poles facing North-South direction

Uses of magnets

- -Magnets are used in radios
- -Magnets are used in microphones
- -Magnet are used in loud speakers
- -Magnets are used in doors of refrigerators

Magnetism

Magnetism is a way of making magnets

Magnetic substance

Magnetic substance are substances that can be attracted by a magnet

- 42 (a) Name two natural resources in the environment that enables green plants to make their own food.
 - -Carbon dioxide
 - -Mineral salts
 - -Water

Reject: Air

(b) What name is given to the process above?

Photosynthesis

(c) State the gas which is given off during this process.

Oxygen

Related content

Potassium, magnesium are also essential mineral plant nutrients that critically contribute to the process of photosynthesis

Photosynthesis is the process by which green plants and some other organisms use sun light to synthesize carbon dioxide and water

Or

Photosynthesis is the process by which green plants make their own food using chlorophyll in the presence of carbon dioxide, sun light and water

Reasons why plants do not make food at night

At night there is no sun light

Note: According to Dream research, plants do not make food at night but breathe, below is the reason

-In a day light, plants are both respiring and photosynthesing, so oxygen and carbon dioxide are diffusing in and out of the leaves. But over night without sun light, photosynthesis stops and stomata close with just respiration taking place, only oxygen diffuses into the leaves and only carbon dioxide diffuses out

43 (a) What is juvenile delinquency?

Juvenile delinquency are acts or behaviours committed by a young person and are punishable by law

- (b) State any two ways of controlling ant-social behaviours.
- -Punishing the wrong doers
- -Equal treatment among children
- -Through guidance and counselling
- -Encouraging to do developmental activities during their free time
- (c) Mention any one example of ant-social behaviours.
- -Teeling lies
- -Stealing
- -Drug abuse
- -Raping
- -Abortion
- -Child prostitution

P7

-Wandering (running away from home)

Related content

Juvenile

A juvenile is a young person below 18 years

Sexual deviation

Sexual deviation are abnormal sexual practices

Examples of sexual deviation

- -Bestiality
- -Masturbation
- -Homosexuality
- -Oral sex
- -Lesbianism
- -Incest

Causes of anti-social behaviours

- -Peer influence
- -Ignorance of society
- -Failure to enforce rules in a community
- -Un fulfilled expectations
- -Pampering of children
- -Over strictness by parents in a community

Causes of sexual deviation

- -Peer influence
- -Exposure of pornography
- -Poverty
- -Ignorance of dangers of sexual deviation
- -Drug abuse

Ant-social behaviours

Anti-social behaviours are habits which are not accepted in a society

44 Use the diagram below to answer the questions that follows.



(a) What name is given to the above equipment?

Fire extinguisher

(b) Why is the above equipment always painted with bright colours? For easy identification

(c) Name the gas which is used in the above equipment.

Carbon dioxide

(d) Give the reason to support your answer in c above.

The gas is used because it does not support burning

Related content

Places where a fire extinguisher can be found

- -Schools
- -Hospitals
- -Big markets
- -Big super markets
- -Big departmental stores
- -Police stations

Reasons why fire extinguishers can be put in all the above places

It helps to stop fire out break

- (a) In human reproductive system, state where each of the following process take place.
 - (i) Production of female hormones

Ovary / Ovaries

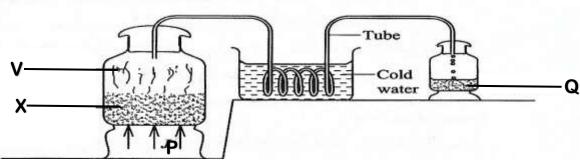
(ii) Production of sperms

Testis / testes / Testicles

(iii) Implantation

Uterus / Womb

- (b) State the function of placenta to the foetus during pregnancy.
- -Supplies food to the foetus
- -Supplies oxygen to the foetus
- -Provide hormones to the foetus
- -Prevents blood from the mother to mix with that of the foetus
- -For attachment of the foetus to the mother
- -Receives urea from the foetus
- -Receives carbon dioxide from the foetus
- -Receives wastes from the foetus
- -For exchange of materials between the mother and the foetus
- 46 Below is a controlled system showing local distillation method. use it to answer the questions that follows



(a) Name the method used in the above diagram.

Distillation

(b) Name the content marked X.

Fermented mixture

(c) Why is the tube coiled?

To increase surface area for condensation (d) What is the scientific name for alcoholic content marked Q? Distillate Related content -The tube is passed through cold water to condense the alcohol vapour -Heat out "P" is used to heat the fermented mixture to cause evaporation of the alcohol vapour -Due to heat from "P" the fermented mixture is caused as seen at "V" -Distillation is the process of obtaining alcohol by the process of evaporation and condensation of liquids containing alcohol Note: Distillation uses mainly two physical processes as listed below -Evaporation -Condensation 47 (a) A gear wheel X has 80 teeth and gear wheel V has 40 teeth, how many turns will gear wheel X make in one revolution. Solution process Number of turns = No of teeth of gear wheel X No of teeth of gear wheel V No of turns = 80 teeth 40 teeth = 2 turns (b) Give any two uses of gear wheels. -Gear wheels are used to multiply force -Gear wheels are used to multiply speed in vehicles -Gear wheels are used to change direction in vehicles ie making reverse in vehicles (c) Define belt drivers. Belt drivers are special forms of wheels and axle that transmit motion from one wheel to another Related content Uses of belt drivers -Belt drivers are used to transfer motion from one wheel to another eg bicycles -Belt drivers are used in factories to transport manufactured goods ie bottling companies Examples of machines which use gear wheels and belt drivers -Bicycles -Sewing machines -Cars -Grinding mills Friction Friction is the force that opposes motion

P7

Properties of friction

- -Friction occurs in all three states of matter
- -The greater the load, the greater the force of friction

Types of friction

- -Rolling / Sliding / kinetic friction
- -Viscosity friction
- -Static friction

Static friction

Static friction is the type of friction that occurs fixed in one place

Examples of static friction

- -A nail fixed in a wall
- -Children standing on assembly ground
- -A screw nail fixed in a nut
- -A car parked

Viscosity friction

Viscosity friction is the type of friction which occurs in liquids and gases

Examples where viscosity is applied

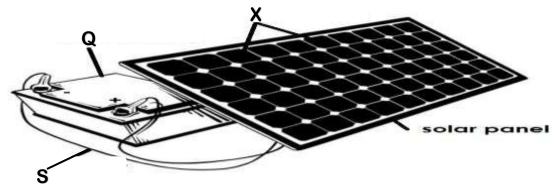
- -Rubbing both hands together
- -A stone rolling on a nail
- -A ball rolling on the ground

Uses /advantages of friction

- -Friction enables us to write
- -Friction helps us to walk without sliding
- -Friction helps us to climb mountains
- -Friction enables us to brush the teeth

Ways in which friction is a nuisance / disadvantages of friction

- -Friction causes wear and tear of objects
- -Friction cause un necessary noise
- -Friction delays work
- -Friction reduce efficiency of machines
- 48 Study the diagram below and answer the questions that follows.



(a) State the function of part marked;

(i) S

Part S charges sunlight energy into solar Electricity

(ii) Q

Part marked Q stores solar electricity

(b) Give one reason a solar panel is painted black.

To absorb sunlight

(c) Name the part marked S.

Conducting wire

Related content

Reasons why is always put on top of buildings

-To trap sunlight

Sollar electricity

Sollar electricity is the type of electricity got from sun

Geothermal electricity

Geothermal electricity is the type of electricity got from hot springs

Examples of fossils that can be burnt to produce electricity

- -Coal
- -Petrol
- -Diesel

Types of energy possessed by falling water that turbines

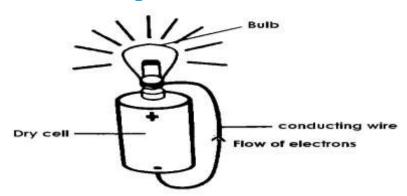
Kinetic energy

Electric current

Electric current is the flow of electrons

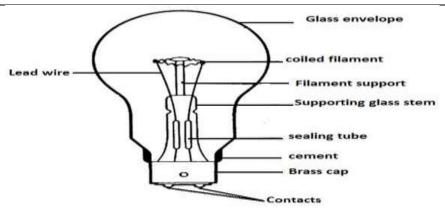
- -An ammeter is the instrument used to measure electric current
- -Electric current is measured in amps /amperes
- -An electric circuit is the path followed by electricity

Note: Electrons flows from the negative terminal to the positive terminal as in diagram below



Diagrammatic illustration of a bulb

An electric bulb is a device that changes electric energy into heat and light energy



Energy changes that place in the bulb

Electric energy is converted to heat and light energy

Glass envelope

- -This protects the inside part of the bulb
- -Also prevent Nitrogen and argon gases from escaping

Note: Argon and Nitrogen are gases found in a bulb

- -The glass envelope is transparent to allow light to pass through
- -The filament of a bulb is coiled to increase electric resistance
- -The coiled filament is made from Tungsten
- -The reason why coiled filament is always made from Tungsten is that it has a high melting point
- (a) Give one reason why it is not good to apply soil or cow dung on any burnt of our skin.

They may infect the burnt area with germs

- (b) State any two reasons why a burn or a scald part of our skin dipped into cold water.
- -To reduce the heat of a burn or scald
- -To minimise the effect of a burn or scald
- (c) Suggest one way of avoiding burns and scald while carrying hot objects.

When lifting hot objects, use a piece of cloth

Related content

First aid kit

First aid kit is a collection of things used to give first aid

First aid box

First aid box is a container where things used to give first aid are kept

Note: The major reason for giving first aid is to save life

Other reasons why we give first aid

- -To reduce pain
- -To stop /reduce bleeding
- -To prevent further injuries
- -To promote quick recovery

A first aider

A first aider is a person who give first aid to a casualty

Qualities of a first aider

- -Should be observant
- -Should be knowledgeable
- -Should be clean
- -Should be able to use common sense

Responsibilities of a good first aider

- -To examine the condition of a casualty
- -To help a casualty as quick as possible
- -To take a casualty to the nearest health unit
- -A first aid box should be painted coloured colours for easy identification
- -A person who is bitten by a snake ties the cloth above the bitten part to prevent poison from going to the heart

Items	Uses
Razorblade	To cut plaster and bandage
Splint	To tie and keep the broken bones in one Position
Safety pin	To fasten the bandage
Pair of scissors	To cut plaster and gauze
Clinical thermometer	To measure human body temperature
Surgical spirit	To prevent contamination

50 (a) Define a health survey.

A health survey is the way of gathering information about health of a family or community

- (b) Write any one information gathered during a health survey.
- -Food security in the area
- -Kind of food people eat
- -Immunisation on coverage
- -Sanitation in the area
- -Kind of houses people use
- (c) Give any importance of elemography.
- -It helps the government to know the number of people (population) in various areas
- -It helps the government to determine the population structure
- -It helps the government to plan for its people
- (d) Mention any one kind of information gathered about population.
- -Demography
- -Housing information

P7

-Immunisation -Food security Related content Demography Demography is the study of the population Activities of a school health club -Peer education on HIV /AIDS -Carrying out debates on topics of health-related activities -Organising health parades Activities that promote health in a community -Proper disposal of wastes -Drain away stagnant water -Treating of the sick people -Providing good nutrition (a) Name any two of the 5Rs in waste management. 51 -Refuse -Reduce / Reduction -Re use / Reusing -Repurpose -Recycle / Recycling (b) State any two effects of waste management. -Leads to out break of sanitary diseases -Attracts disease vectors -Causes pollination (a) Give any one reason why a rabbit house is raised above the ground. -Raising the hutch helps to prevent crawling pests from causing harm to the rabbits -Raising the hutch also protects the rabbit from dogs and other dangerous animals (b) State any two things that should provide to rabbits in the hutch. -Clean drinking water -Clean food -Vegetables eg carrots -Pellets -Sweet potato peelings -Banana peelings (c) Give any one reason why wire mesh is used in building the hutch. Wire mesh allows free aeration and air circulation in the hutch /rabbit house Related content Rabbitry Rabbitry is a farm of rabbits Reasons why people keep rabbits

- -Rabbits provide meat which is source of proteins
- -Rabbits are source of income when sold
- -Rabbits can be kept as pets
- -Rabbits dung can be used as manure in the garden

Characteristics of local breeds of rabbits

- -They are resistant to most diseases
- -They take long to mature
- -They are smaller than exotic breeds of rabbit
- -They have many different colours

Exotic breeds of rabbits

These are breeds of rabbits which are imported from outside countries Examples of exotic breeds of rabbits

- -Angola rabbit
- -California rabbit
- -Chinchilla rabbit
- (a) Nantumbwe is a tobacco grower, state any two ways how she can identify the pests affecting her garden of tobacco.
 - -Rotten plants parts of tobacco leaves
 - -Deformed plant parts
 - -Spots on leaves
 - -Spots on fruits
 - -Wilting of tobacco plant
 - -Poor growth
 - (b) Identify any one way Nantumbwe can control pests and diseases on her farm.
 - -Pruning tobacco
 - -Regular weeding of tobacco garden
 - -Use of traps to eradicate animal pest
 - (c) Name any one harmful substance found in Nantumbwe's crops.
 - -Tar
 - -Nicotine
- 54 Study the table below and complete it carefully. relate the body organs to their system of the body and their function.

ORGANS SYSTEM		ORGAN FUNCTIONS	
Heart	Circulatory	It pumps blood to all body parts	
Epididymis Reproductive		It stores sperms	
Pancreas	Digestive	Produces pancreatic juice	

Related content

Organs related to the circulation of blood

- -The heart
- -The lungs
- -The kidney
- -The small intestines
- -The liver

Blood vessels

These transport blood to and from the heart to the body tissues

Arteries

These carry blood away from the heart to various parts of the body

Characteristics of arteries

- -They transport blood away from the heart to other body parts
- -They have thick muscular walls to with stand and maintain high pressure of blood
- -They have narrow lumen to maintain the pressure of blood inside them

Note: All arteries carry oxygenated blood except pulmonary arteries Veins

These carry blood from other parts of the body to the heart

Note: The main vein is called the Vena Cova

Characteristics of veins

- -All veins carry de-oxygenated blood apart from pulmonary vein
- -Veins have a wide Lumen which allows blood to flow at a low pressure

Note: Portal veins are unique that they can carry blood from one organ to another this is because they have capillaries at both ends

(a) What is the importance of fruits in our diet?
Fruits are source of vitamin C or Ascorbic acid

(b) Give any one reason why people include proteins in their diet.

Proteins are body building foods

- (c) Suggest any two ways of protecting children from malnutrition.
- -By feeding them on a balanced diet
- -By feeding them on fortified foods

Related content

Below is a table which show some deficiency diseases and what causes them

Diseases	sign and symptom	causes
Night blindness	Not able to see well	Lack of vitamin A
Goitre	swollen front of the neck	Lack of iodine
Beri Beri		Lack of vitamin B1
Rackets	Bones are soft and swollen Bones are weak and bow shaped	Lack of vitamin D

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