**PLE INTEGRATED SCIENCE MARKING GUIDE FOR** **2019**

1. the sun// sun
2. ticks// lice// louse
3. cutting// grooming fingernails// toe nails

* shortening / used in shaving hair.

1. Growth// ripening of fruits// germination of seeds// shedding leaves// flowering// fruiting// fertilization (**Reject**: pollination// photosynthesis// seed and fruit dispersal// tropism)
2. Reptiles// reptalia
3. Pivot joint
4. Brain
5. Draught cattle// work type cattle// work cattle
6. Transparent materials// transparent objects
7. Sand soil has larger particles than clay soil

* Sand soil has bigger particles than clay soil

1. The eardrum vibrates and sends the vibrates to the middle ear

* It converts/ changes sound waves to sound vibrations

1. Removing the shade// watering// reduced watering// spraying (**Reject**: weeding/ thinning)
2. **The incisor teeth are;** sharp

* sharp with flat edges
* chisel shaped

1. Removing rubbish

* burning rubbish
* proper disposal of human faeces// wastes//
* smoking latrines
* cleaning latrines regularly
* burying decaying matter
* spraying insecticides at rubbish pits
* promote/ observe sanitation

1. Beriberi
2. Sucker
3. For attachment onto the intestinal walls
4. Prevent common diseases

* Cure
* safe if used correctly
* cheap// affordable
* accessible
* effective
* reduce signs and symptoms
* meet people’s common health needs

1. For growing flowers/ vegetables// raising seedlings//

* carrying/ holding/ storing construction materials
* feeding troughs
* holding animal feeds
* used in making crafts
* play material
* fermenting alcohol
* laying nests
* drenching animals
* carrying harvested crops
* dustbins

1. Carnivorous animals feed on herbivorous animals

* primary consumers
* plant eaters

1. Non renewable resources can get exhausted

* finished// exist in limited amounts
* cannot be replaced naturally once used up

1. An artery carries oxygenated blood except the pulmonary artery while a vein carries deoxygenated blood except the pulmonary vein

* An artery carries blood away from the heart while a vein carries blood towards the heart.
* An artery carries blood with high pressure while a vein carries blood with low pressure.

1. Strengthen muscles// make muscles flexible// proper functioning of the body// make digestion easy// blood circulation easy// reduce fats// body fitness// refreshes the mind
2. Its mesocarp has air spaces

* has spongy mesocarp
* it is light
* has hollow mesocarp
* has harder testa

1. Sunny weather// hot weather
2. Due to expansion (**Reject**: to allow expansion// to leave room for expansion)
3. **Alcohol** has low freezing point

* expands easily
* does not solidify easily
* expands faster

1. It opens the air ways

* restore// restart breathing

1. The hairs trap dust//

* clean air
* filter air
* trap germs
* traps foreign bodies/ insects

1. Hepatitis B// hepatitis A// yellow fever
2. Black Austrolop // Cornish white// New Hampshire// Orpington// Jersey black giant// Rhode Island Red// Jersey white giant
3. Ear canker
4. Increasing the speed of riding // rotation

* increasing the number of turns in coils
* strengthening the magnetic field
* strengthening the magnet

1. It floats on water// remains on top of water
2. Presence of moisture// warmth// water// food// air// oxygen
3. Carrots// beetroots// sugar beets// parsnips// radishes// turnips// ruta bagas (moolis)
4. Arthropods// arthropoda
5. Encourages children to abstain sex// creates awareness about HIV/AIDS

* equip pupils with life skills like decision making assertiveness/self-control//
* helps children to avoid risky behaviours

1. In order to get quality seeds that can germinate health seedlings//

* get good yields
* proper utilization of space
* reduce chances of gap filling
* avoid time wastage
* choose right variety
* choose species you want
* get viable seeds

1. Kidneys// lungs
2. (a) (i) oxygen// O2

(ii) carbon dioxide// CO2

(b) **Wind**; causes accidents

* food contamination
* air pollution
* leads to soil erosion
* raises dust
* spreads airborne diseases
* destroys crops// blows off house roofs
* causes shame when it lifts off people’s clothes

1. (a) tsetse fly

(b) larva stage

(c) blood

(d) through bites// biting// sucking blood

1. (a) high temperature in the environment// high fever// inhaling in very hot air// allergies// fractured skull// sinuses// rapture of blood vessels caused by high pressure// over blowing of the nose// strong sneezing// punch on the nose// standing under sunshine for long// nose picking// ebola// muburg

(i) reduce// control flow of blood from the nose

(ii) promote clotting of blood// stop bleeding

1. (a) Volume – loudness or softness of sound

(b) Pitch – highness or lowness of sound

(c) Frequency – Number of vibrations per second.

(d) Echo – Reflected sound

1. (a) Toads are cold blooded// live both on land and in water

* use gills to breathe at their early stages//
* lay eggs covered in jelly //
* under external fertilization//
* hibernate//
* move by hopping//
* have external ears//
* have webbed toes//
* lives both on land and in water

(b) Fish use gills to breathe while amphibians use lungs and moist skin to breathe//

* Fish have scales while amphibians have moist or rough skin
* Fish have lateral line to detect sound while amphibians use external ears to hear.
* Fish use fins for movement while amphibians use limbs.
* Fish live their entire life in water while amphibians live both in water and on land

1. (a) common diseases that affect people

* latrine coverage
* information on food security
* immunisation coverage
* housing status
* population status
* birth and death rates
* source of water
* level of health education
* economic status of the people
* sanitation information

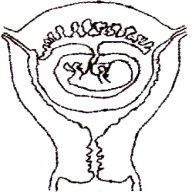
(b) helps in identifying health needs

* determines health status of people
* creates awareness about health challenges
* sensitization// providing health services
* planning of better health services
* monitoring health programmes
* helps government mobilize funds

1. (a) amniotic fluid

(b) transports oxygen// carbon dioxide// hormones// antibodies//

* digested food waste materials to or from the foetus
* attaches the foetus to the placenta

(c) 

1. (a) saanen// togenburg// angora// jamna pali// alpine goats

(b) mohair// skin

(c) Goats don’t need a lot of pasture// care// attention than cattle

* have low water demand than cattle
* provide a quicker source of income turnover than cattle
* multiply faster than cattle
* cheaper to maintain than cattle// need a smaller space than cattle

1. (a) **Weeds;** compete with crops for light// water// space// plant nutrients//

* hide pests
* spread crop diseases

(b) **By**; slashing

* weeding
* use of herbicides
* digging
* uprooting
* practicing crop rotation
* biological control
* planting cover crops
* flooding
* mulching

(c) **By**; spraying

* Mulching
* manure application// fertiliser application
* fencing
* staking// trellising// plant training// propping
* timely harvesting
* controlling pests// diseases
* pruning
* thinning
* watering

1. (a) wheels and axle

(b) drawing or fetching water from deep wells

* removing soil from pits
* raising / lowering building materials

(c) friction// frictional force// gravity// force of gravity// gravitational force// tension// tensional force

(d) roller skates// wheel chairs// egg beaters// radio knobs// engineers’ vice// sewing machine// gear wheels// conveyor belts// pencil sharpener// steering wheels// bicycle pedals// screw driver// door knobs// bicycle handles// brace//

1. (a) saliva

(b) **food is;** chewed// broken down// masticated// softened// moistened// lubricated// cooled// rolled into bolus// mixed with enzymes// digested

(c) constipation

1. (a) capital// land// drainage of soil// management// water source// tree species// site// labour

(b) For; employment// tourist attraction// income// poles// bee farming// food// fruits// shade// rain formation// fresh air// shade// timber// herbal medicine// firewood// charcoal// raw materials// study purposes// recreation centres// purifying of air

1. (a) chlorophyll

(b) Ferns make their own food while mushrooms absorb water from decaying matter

* Ferns feed autotrophically while mushrooms feed saprophytically

(c) mosses// liverworts// horsetails// algae// hornworts// quillworts

1. (a) (i) orange

(ii) violet

(b) Due to difference in speed of wavelength that pass through the glass

* Due difference in speed of light different colours

(c) **Light rays are;** split

* Refracted
* dispersed by raindrops
* white light is separated by raindrops

1. (a) bushy compound// poor disposal of faeces// rubbish// domestic waste// dirty// dusty classroom// dirty water sources/ kitchen/ dormitories// littered compound// pools of water in the compound//

(b) malaria// sleeping sickness// bilharziasis// typhoid// dysentery// cholera// dengue// polio//