

RUBANDA DISTRICT SCIENCE GUIDE 2023

1. Oxygen
2. Adding muriam on roads | Adding tarmac on roads |
Adding marble on roads | Tarmacking roads | Making
road surfaces rough | Increasing weight on vehicles
3. For cleaning the floor | Mopping the floor |
Drying the wet floor
4. Spring balance | Beam balance | Scale balance
5. Bush burning releases smoke to the atmosphere |
Adds carbon dioxide to the atmosphere
6. Light travels in a straight line
7. Maternal and child health care
8. Air exerts pressure
9. Has Synovial fluid | Has ligament | Has Cartilage.
10. Bristles help to remove food remains from
the teeth or tongue or mouth.
11. Sea mammals | Marine mammals | Cetaceans
12. They are equal.
13. Tongue.
14. Conifers | Coniferous plants
15. Giving ORS | Drinking plenty of fluids |
Eating enough fruits | Drinking enough water |

Through Intravenous rehydration / Drip / Drinking
porridge / Taking tea / Taking soup

16. Using Vasectomy method / Cutting sperm ducts

17. An alloy of lead and tin has low melting
point / To easily melt in case of high voltage due to
its low melting point.

18. Age of the patient / Length of the illness /
Type of the illness / Weight of the patient /
Sex of the patient / Body reaction to the drug /
History of drug usage / previous medical
information / Physiological condition of some
patients like pregnancy / Breast feeding / Blood
pressure.

19. Sheep shearing / Shearing

20. To allow the larvae to get dissolved oxygen
for breathing / To get filtered food

21. To prevent wood from developing cracks /
To prevent wood from bending / Warping

22. Cassava / Sweet potatoes

23. Breast milk contains antibodies / Provides
almost a complete balanced diet / Easy to
digest / It is at baby's right temperature /
Usually clean and ready.

24. Have hard seed coat / testa
25. Fracture
26. Holds the broken bones in one position.
27. The body needs more oxygen for respiration /
To increase oxygen supply to the body cells
to generate energy.
28. It is a source of calcium / Added to poultry
feeds to supply calcium / Source of proteins /
Enable birds lay hard shelled eggs.
29. Fibres
30. To get correct / accurate amount of rainfall.
31. Leads to soil formation / Reduces the volume
of faeces in latrines / Production of biogas /
Leads to formation of humus or manure.
32. Lung cancer / Asthma / Emphysema
33. Using a separating funnel / Decantation
method [Reject decanting method]
34. By afforestation / Re-afforestation / Use of heat
energy saving equipment / Using electricity to
cook / Use of biogas / Use of alternative source
of energy / Soaking dry beans before cooking /
Putting off firewood after cooking / Using wood
sparingly / Covering food while cooking / Agroforestry /
Avoid deforestation

35. Cassicles
36. Converts sound vibrations into nerve impulses/signals [Receptor converts sound waves into nerve impulses]
37. Helps to remove soapy water / Lather from clothes / from clothes
38. Spraying with acaricides / Dipping animals in dip tanks with acaricides / Practice paddock grazing / de-ticking / Rearing poultry to pick ticks / Hand picking / Rotational grazing / Burning old pastures [Reject spraying with insecticides].
39. Calcium / Phosphorous
40. Flushing the toilet after use / Scrubbing the floor with a toilet brush and soapy water / Pouring disinfectants / antiseptics in the bowl.

SECTION P

- 41 (a) Wheel barrow / bucket / basin / boxes
- (b) The rate of transpiration is low / Avoid wilting of seedlings / Prevents drying of seedlings
- (c) Reduced watering / Weeding / Reducing shade / Spraying / Manuring / Thinning
- 42 (a) Electric bell / Sound amplifiers / car indicators / Generators / Loud speakers / Hard disc

b) Increasing the electric current / Increasing the number of turns in the coil / Solenoid / Increase the voltage / Increasing number of dry cells

(c) Disconnecting it from electricity by switching off.
Reducing voltage

43 (a) By the help of a kink / bend / narrow bend / Constriction

b. Mercury is easily seen / A good conductor of heat / Does not wet the glass / Does not stick on the walls of the glass / Has regular expansion / Has uniform expansion

$$\begin{aligned}
 (c) \quad ^\circ F &= \frac{9}{5} C + 32 & \text{OR} & \quad 5F = 9C + 160 \\
 & \frac{9 \times 35 + 32}{5} \text{ m, } \checkmark & & \quad 5F = 9 \times 35 + 160 \\
 & \frac{9 \times 35 + 32}{5} & & \quad 5F = 315 + 160 \\
 & \frac{9 \times 35 + 32}{5} & & \quad 5F = 475 \\
 & \frac{9 \times 35 + 32}{5} & & \quad \frac{5F}{5} = \frac{475}{5} \\
 & 9 \times 7 + 32 & & \quad F = 95^\circ \\
 & 63 + 32 & & \\
 & \underline{95^\circ F} \text{ A, } \checkmark & &
 \end{aligned}$$

44 (a) Pupil

(b) Indicate the retina with letter R on the diagram.
[Reject \rightarrow]

(c) Gives accurate interpretation of the image / produces a very clear vision of the image

(d) By adjusting the size of the pupil / Increasing or reducing the size of the pupil

45 (a) River blindness

(b) Malaria

(c) Elephantiasis

(d) Bubonic Plague

46 (a) Red blood cells / Platelets / Plasma

(b) They are irregular shaped to engulf germs / have nuclei / produce antibodies / produce antigens

(c) Eating food rich in iron / Drinking enough fluids / Taking iron tablets / Through blood transfusion / Taking fruits and vegetables / Taking enough water

47 (a) Plants provide people with food / Source of wood / fuel / used in production of bridges

(b) By absorbing carbon dioxide during photosynthesis / Trapping dust / Release oxygen during photosynthesis

(c) By afforestation / Re afforestation / Teaching people the importance of forests / Recycling waste papers / Use of alternative sources of energy to cook.

48 (a) Humerus

(i) They work in pairs / Work in opposite ways /
work opposing each other / Work oppositely

(ii) They work under the will of the brain /

Are controlled by the brain / Conscience

(c) Joint M allows movement in only one direction
while joint N allows movement in all directions /

Joint M allows 180° while joint N allows 360° /

Joint M moves in one plane while N allows
movement in all planes

49 (a) Virus

(i) Blood stained diarrhoea / Noxal discharge /

Sunken eyes / Mouth Sores / Tears in the eyes /

Dullness

(ii) High fever / loss of appetite / High temperature /
Rapid dehydration

(c) Restricts the movement of Infected
animals to infect the healthy ones

50 (a) By the help in Cilia / Hair / Mucus

(i) Epiglottis

(ii) Pleural membrane

(c) Lungs remove Carbon dioxide and water vapour
as excretory products and allow oxygen into
the body for respiration.

51(a) Marcotting

b. Adventitious roots

c. Mango / Orange / Avocado / Paw paw / Jack fruit /
Lemon / Citrus fruits / Apples

(d) The growth is rapid / Matures faster than using
seeds / Need limited care compared to using seeds /
Easier to get hybrids than using seeds / Offspring
resemble the parent plant than using seeds.

52(i) Scurvy

(ii) Beans / peas / fish / Grains / Soya beans

(iii) Vitamins / Vitamin A

(iv) Goitre

53(a) Plastic / Polythene papers / Metal scraps /

Broken bottles / Old cloths

b. Bush burning burns humus / Kills soil
important living organisms which would help in
decomposition / Leaves the land bare exposing it
to agents of soil erosion.

(c) Living organisms

d. Mulching / Crop rotation / Manuring /

fertilizer application / Bush fallowing /

Agro forestry / Growing leguminous crops / Inter
cropping / Mixed cropping

54 (a) Ventilated Improved Pit latrine / VIP latrine

(b) Screen

(c) Lets out bad smelly air

(d) Washing hands using soap and clean water

55 (a)(i) Arthropods

(ii) Segmented worms

(b) Organism A has exo skeleton while ~~eng~~ worms have hydrostatic skeleton

(c) Water snail.

END.