ANSWER KEY

YEAR : 2021

LEVEL : PRIMARY 6

SCHOOL : HENRY PARK PRIMARY SCHOOL

SUBJECT : SCIENCE

TERM : SA1

BOOKLET A

Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**
3	1	2	4	1	3	2
Q8	**Q9**	**Q10**	**Q11**	**Q12**	**Q13**	**Q14**
2	2	4	2	4	3	3
Q15	**Q16**	**Q17**	**Q18**	**Q19**	**Q20**	**Q21**
2	4	4	3	4	3	4
Q22	**Q23**	**Q24**	**Q25**	**Q26**	**Q27**	**Q28**
1	3	2	2	2	3	4

BOOKLET B

Q29. (a) Cell N is able to carry out photosynthesis. Cell N has chloroplasts which contain chlorophyll to taken in sunlight for photosynthesis.

(b) Nucleus. The nucleus controls all activity going on within the cell.

Q30 (a) i) Type of aquatic plant

ii) Duration of experiment

(b) When the temperature increases from 0 to 30, the rate of photosynthesis increases. When the temperature increases from 30 to 40, the rate of photosynthesis decreases.

(c) Material P. It is a transparent material which will allow the most sunlight to pass through the greenhouse, ensuring that the growing plants will be able to take in maximum sunlight for photosynthesis. So the rate of photosynthesis increased.

Q31 a) It is to transport blood rich in oxygen and digested food to all parts of the body. It will also transport blood rich in carbon dioxide back to the lungs for the carbon dioxide to be removed

b) i) The blood in A contains more oxygen while the blood in B contains less oxygen.

ii) The blood will take oxygen from the lungs, which will be pumped by the heart to all parts of the body.

Q32 a) Insect P will transfer the pollen from the anther of the flower of plant X to the stigma of another flower, helping to pollinate it. After that, the flower will be able to fertilize and became a fruit.

b) The flower has colourful petals and produces a sweet scent.

c) Part A: Ovary Part B: Ovules

Q33 a) Area L

b) Area K is a white area, which does not have chlorophyll to trap light for photosynthesis to take place.

Q34 a) The stomata allow gaseous exchange to take place.

b) Ans: 3.4cm

c) When the plant is photosynthesizing, the amount of water taken in may not be the same.

d) When the three leaves are removed, there will only be one leaf to photosynthesis and make food. Therefore, it will need less water and the shoot will not absorb a lot of water, thus the air bubble moves slower.

Q35 a) There is moisture in the first flask, allowing the seeds to germinate. The seeds in the other flask has no water, thus they cannot germinate. In the end, only the seeds in the first flask germinated.

b) The cotton wool allows oxygen to enter the flask, but rubber does not allow oxygen to enter.

c) Mala can conclude that germinating seeds produced heat. The temperature in the flask with moist seeds increased while the temperature in the flask with dry seeds decreases.

Q36 a) The shell is strong.

b) Nut – gravitational potential energy ⟶

Nut – Kinetic energy ⟶

Shell – sound energy + Kinetic energy

c) The gravitational potential energy will increase and converted to more kinetic energy causing the impart to increase, thus, helping animal C to crack the shell.

Q37 a) The weights exert a force that causes the spring to stretch.

b) Melvin's conclusion is correct. For the same amount of force exert on each spring, B's extension is longer.

c) As the mass of the block increases, the distance moved by it decreases.

d) The elastic spring force exerted by the spring could not overcome the frictional force between the block and the floor.

e) The spring pushed the battery against the metal contacts so that there was a closed circuit.

Q38 a) The seawater will gain heat and evaporate to form water vapour, which will rise and come in contact with the water surface of the clear plastic, lose heat and condense to form water droplet. The water droplets will slide down into part R.

b) Steel is a better conductor of heat to allow the seawater to gain heat faster and evaporate faster, making it more suitable than a plastic container.

Q39 a) The temperature of the can is higher than the ice. The cans of drinks will lose heat to the ice, allowing them to cool down after some time.

b) Diagram 1. Since the cans of drinks are in ice, there is more contact area between the ice and the drinks, allowing the drinks to lose heat to the ice faster.

Q40 a) The wax will melt and the pea will drop after a while.

b) The pea that drops first makes the material the best conductor of heat.

c) The peas are closer to the hot water so results can be observed more quickly.

Q41 a)

b)