

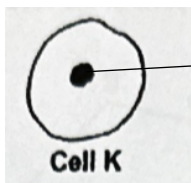
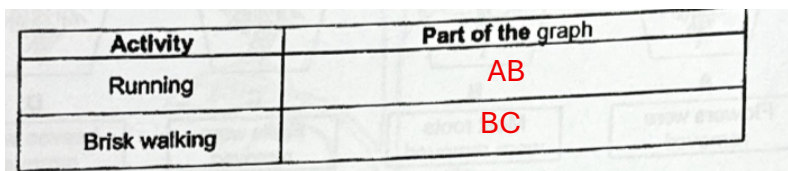
Answer



**2024 Primary 5 Science
Raffles Girls' Primary School
End - of - Year Exam**

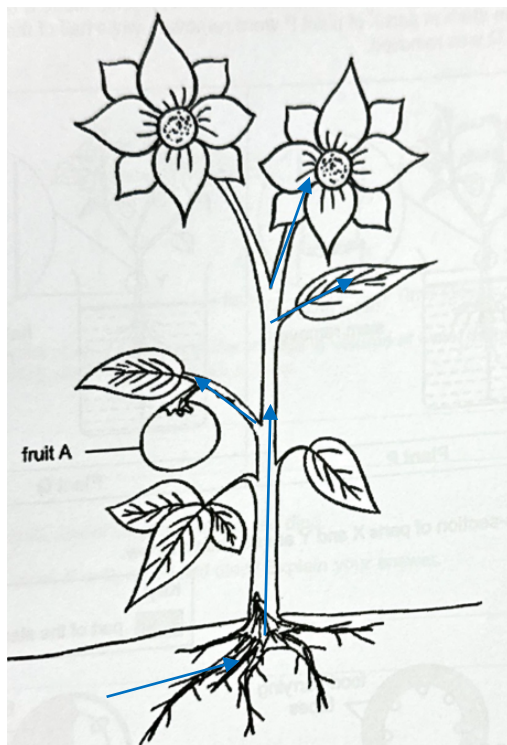
Booklet B

29)	a) Fertilisation [1m] b) As <u>many of the male sex cells will die or unable to reach the female sex cell</u> [0.5m] in the journey, many male sex cells <u>increases the chance of one male sex cell meeting and fusing with female sex cell.</u> [0.5m] c) 1 mark <table border="1"> <thead> <tr> <th>Statement</th><th>Tick (✓)</th></tr> </thead> <tbody> <tr> <td>Both the pollen grains and sperms are produced by the female parts.</td><td></td></tr> <tr> <td>Both the pollen grains and sperms can move from place to place on their own.</td><td></td></tr> <tr> <td>Both the pollen grains and sperms carry genetic information that can be passed down to their offspring.</td><td>✓</td></tr> </tbody> </table>	Statement	Tick (✓)	Both the pollen grains and sperms are produced by the female parts.		Both the pollen grains and sperms can move from place to place on their own.		Both the pollen grains and sperms carry genetic information that can be passed down to their offspring.	✓	
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30)	a) 1 mark <table border="1"> <thead> <tr> <th>Flower Method of pollination</th><th>X</th><th>Y</th></tr> </thead> <tbody> <tr> <td>Insect pollinated</td><td></td><td>✓</td></tr> <tr> <td>Wind pollinated</td><td>✓</td><td></td></tr> </tbody> </table> b) i) The petal is large and brightly-coloured which attracts the pollinators to visit the flower for nectar. [1m] ii) Both the anther and stigma are well hidden in the flower so that pollen grains from anther can be rubbed against the pollinator's body. [1m] c) Fruit [1m]	Flower Method of pollination	X	Y	Insect pollinated		✓	Wind pollinated	✓	
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Insect pollinated		✓								
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31)	a) Y : 10ml [1m] <i>*any number higher than 2 but lower than 20</i> b) The layer of <u>oil in test tube Y prevents water from evaporating.</u> [0.5m] Water is taken in by the roots which is transported upwards, and <u>water is lost through stomata.</u> [0.5m] c) X and Y [1m]									

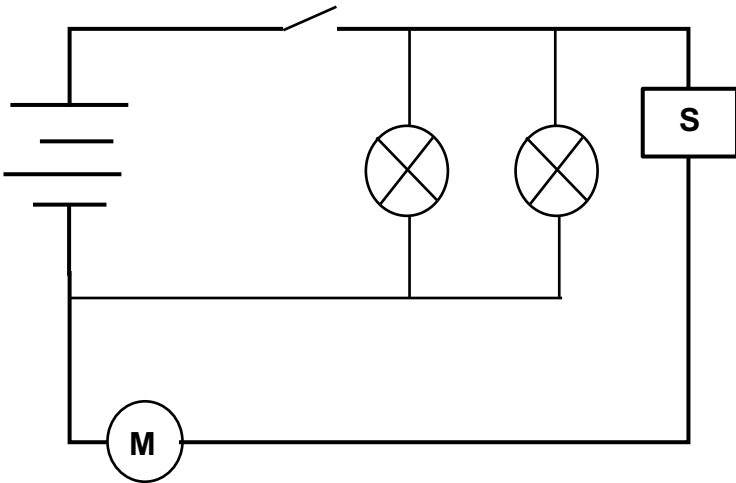
32)	a) As the size of the food substance decreased, the time taken for food to be completely digested decreased. [1m] b) Chewing causes food to be cut into <u>smaller pieces which increase the exposed surface area in contact with the digestive juices</u>, [1m] hence <u>increasing the rate of digestion</u>. [1m]									
33)	OUT OF SYLLABUS a) 1 mark  nucleus b) 2 marks <table><tr><th>Cell</th><th>part of plant the cell came from</th><th>Reason for your answer</th></tr><tr><td>L</td><td>leaf</td><td>It contains chloroplast with chlorophyll to make food</td></tr><tr><td>M</td><td>Stem</td><td>It does not have chloroplast.</td></tr></table> c) Cell membrane [1m]	Cell	part of plant the cell came from	Reason for your answer	L	leaf	It contains chloroplast with chlorophyll to make food	M	Stem	It does not have chloroplast.
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L	leaf	It contains chloroplast with chlorophyll to make food								
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34)	a) Human : Part B [0.5m] Fish : Part D [0.5m] b) <u>Dissolved oxygen in the water enters the mouth</u>. [0.5m] In the gills, <u>oxygen is absorbed into the blood</u>. [0.5m] The <u>heart pumps blood high in oxygen to all parts of the body</u>. [1m]									
35)	a) 1 mark  b) During her recovery, <u>the heart pumps blood slower, transporting less oxygen and digested food to all parts of the body</u> [1m] to release <u>less energy</u>. [0.5m] <u>Carbon dioxide is being carried by the blood at a slower rate to be exhaled</u>. [0.5m]									
36)	a) 2 marks									

Observation	Reason	Tick (✓)
Plant A dies	It does not have flowers for the plant to obtain nectar for nutrients.	
Plant B dies	It does not have enough water as most of the roots have been removed.	✓
Plant C dies	It does not have enough food as the fruits have been removed.	
Plant D dies	It does not have leaves to make food for the plant.	✓

b) 1 mark (general upward direction of water-flow)



- 37) a) F. All the water-carrying tubes in the stem are still intact. **More water is absorbed by the roots, transported upwards by the water-carrying tubes and more water loss** [1m] through stomata.
- b) Plant P. **Food made by the leaves cannot be transported downwards past the cut-portion** [1m] as all the **food-carrying tubes were removed**. [0.5m] Due to lack of food, the roots died. **Without food and water, plant P died.** [0.5m]
- 38) a) W : evaporation [0.5m]
X : condensation [0.5m]
- b) Yes. The **delivery tube** lost heat to the cold wet cloth to become a **colder surface**. [0.5m] Water gained heat and boiled to **steam which lost more**

	<u>heat to the colder inner surface</u> [0.5m] in set-up S and <u>condensed faster to form more water droplets</u>. [1m] c) Decrease. Due to <u>smaller cold wet cloth, the area of colder inner surface is less</u>. [1m] <u>Less steam</u> lost less heat to the smaller colder surface and <u>condensed slower to form less water droplets</u>. [1m]
39)	a) During a hot day, the <u>steel bridge</u> gained heat and <u>expanded</u>. [1m] With the presence of roller, when <u>the steel bridge occupied more space</u> due to expansion, it <u>could roll towards its right side</u> [1m] without buckling the structure. b) <u>Air trapped</u> in the hollow brick is <u>a poor conductor of heat</u>. [1m] During hot days, with the presence of hollo brick, <u>the inside of the house gains heat at a slower rate from the hotter air</u> [1m] outside, hence keep the inside cool.
40)	a) 1 mark for parallel arrangement of the bulb to increase brightness 1 mark for correct position of the switch to control all components  b) When the <u>speaker is faulty</u> / not working, <u>the motor and the bulbs will still function</u> / work. [1m] c) The bulb was fused / blown. <u>Too much electric current flowed through the bulb</u>, [1m] causing the filament of bulb to melt and fused.
41)	a) Object G is a <u>magnet</u>. [0.5m] The <u>like poles of object G and bar magnet are facing each other, causing bar magnet to be repelled upwards</u>, [1m] hence balancing the rod. <u>Bar magnet was heavier</u> [0.5m] the teddy bar.