

Answer

2024 Primary 5 Science
Anglo Chinese School (Junior)
End - of - Year Exam



Booklet B

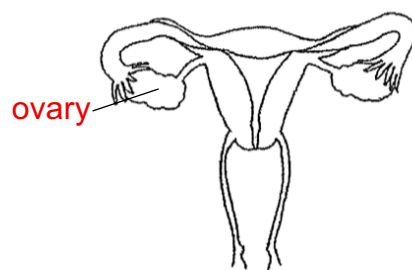
29) a) 1 mark

Number of pumps of air	Mass of the ball (g)
1	500
2	510
3	520
4	530

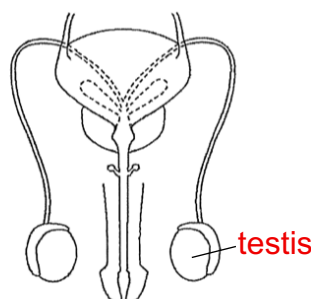
b) Air has **no definite volume, so air can be compressed** [1m] in the ball.c) Air is a matter and **has mass**, hence **more air had more mass**. [1m]30) a) The filament **holds the anther firmly** [1m] and high up.

b) Parts C and D were not removed. When **pollen grains were dusted onto the stigma, pollination have taken place**. [0.5m] This allowed the pollen tube to grow downwards whereby **the male sex/reproductive cell fused with the female sex/reproductive cell in the ovule which is fertilization**. [1m] The **ovule will form the seed while the ovary will form the fruit**. [0.5m]

31) a) 2 marks



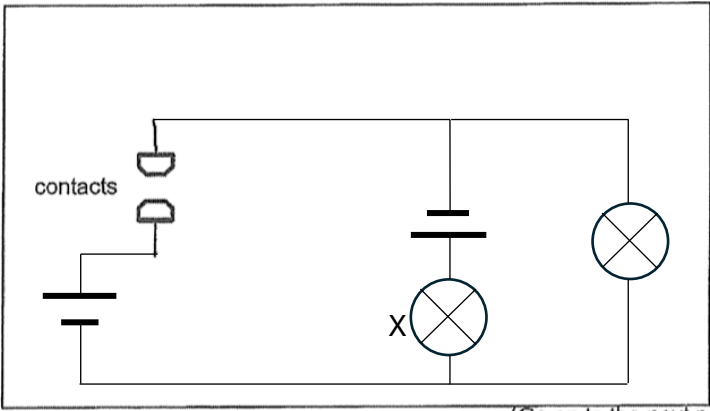
Female Reproductive System



Male Reproductive System

b) Part R, the nucleus, contains genetic information that is being passed down from parent to young. [**OUT OF SYLLABUS**]

32)	a) Sea / oceans / lakes / rivers [1m] b) The Sun <u>provides heat so that water can gain heat and evaporates</u> [1m] into water vapour. c) Without condensation, there will <u>not be any clouds</u> formation [1m] and no rain.						
33)	a) 1 mark <table border="1"> <thead> <tr> <th>Heat Gain or Heat Loss</th><th>Process(es)</th></tr> </thead> <tbody> <tr> <td>Heat Gain</td><td>P, Q [0.5m]</td></tr> <tr> <td>Heat Loss</td><td>S, R [0.5m]</td></tr> </tbody> </table> b) Warm <u>water vapour</u> from the surroundings lost heat to the cold plastic wrapping and <u>condensed to water droplets</u>. [1m] The <u>liquid water</u> then lost heat to the cold plastic wrapping and <u>froze into solid ice</u>. [1m] c) The <u>white solid gained heat from the warm surroundings</u> and <u>melted</u> [1m] into water.	Heat Gain or Heat Loss	Process(es)	Heat Gain	P, Q [0.5m]	Heat Loss	S, R [0.5m]
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34)	a) i) Bulb will light up. [1m] ii) bulb turn on and off repeatedly [1m] b) <u>Electric current flowed through the iron rod</u>, causing it to become <u>electromagnet which attracted the iron ball</u> [1m] to move from A to B. When iron ball <u>is at B, there is an open circuit</u>, so the <u>electromagnet will be demagnetized, causing the ball to fall from B to A</u>. [1m] This cycle continues.						
35)	a) Carbon dioxide and water are needed with the presence of light and chlorophyll. [1m] b) As the plastic bag is waterproof, <u>the roots are unable to absorb water. Without water, the leaves cannot make food</u>. [1m] Due to lack of food and water, the plant wither. c) Change 1 : Remove the plastic bag from set-up 2 [0.5m] Change 2 : Remove 2-3 leaves from the plant in set-up 2 [0.5m]						
36)	a) Nitrogen : Gas C [0.5m], Oxygen : Gas D [0.5m]						

	b) Tube S. In the <u>absence of light, the water plant cannot carry out photosynthesis.</u> [0.5m] <u>Both water plant and water snails released carbon dioxide</u> [1m] during respiration / life processes, hence most amount of carbon dioxide. <u>Compared tube S to tube R, the water plant will take in carbon dioxide for photosynthesis</u> [0.5m] in the presence of light.
37)	a) i) pump : heart [0.5m] ii) liquid : blood [0.5m] b) As <u>the thickness of wall increased, the volume of liquid collected in beaker decreased.</u> [1m] c) When infected with disease X, <u>the blood vessel is narrower which allows less blood flow per minute.</u> [0.5m] Hence, the heart of the sick person has to pump blood faster to <u>compensate so as to ensure that sufficient oxygen and digested food is transported</u> [0.5m] by the blood.
38)	a) Electrical conductor [1m] b) When contacts touch, <u>the circuit is closed and electric current flows through</u> to light up the bulb. [1m] c) 1 mark for parallel arrangement of 2 bulbs 1 mark for correct series arrangement of 2 batteries to make X brighter 

39)	a) <u>Light</u> from the lit torch <u>travelled in a straight line</u> and <u>was blocked the the wooden cube</u>. [1m] b) As <u>distance X increased, the height of the shadow formed on the screen decreased</u>. [1m] c) The <u>size and shape of the wooden cube is the same</u> [0.5m] so as to ensure that <u>only the changed variable, distance X affects the height of the shadow</u>, [0.5m] and not other variables. d) 8cm (any number less than 10cm) [1m]
40)	a) To find out <u>how the number of sheets of paper</u> affects the rate of photosynthesis of the aquatic plant / the number of bubbles produced by the plant in one minute. [1m] b) Oxygen [1m] c) <u>No light from lamp can pass through 10 sheets</u> [0.5m] of paper. <u>Without light, the aquatic plant cannot carry out photosynthesis</u> [0.5m] and hence no bubbles are produced.
41)	a) C. <u>Least time is needed to melt</u> [0.5m] the wax, So C is the best conductor of heat to / allow water to gain heat the fastest. [0.5m] b) There was <u>greater surface area in contact between the 3 rods and water</u>, [0.5m] so the <u>water gained heat faster from the heated rods</u>. [0.5m] c) The cotton balls <u>trapped air which is a poor conductor of heat</u>. [1m] The <u>hot water in the water heater lost heat slower to the surrounding air</u> [1m] outside.