

**Methodist Girls' School (Primary)**  
**P6 Mid-Year Examination 2021**

No	Answer
1	2
2	2
3	2
4	4
5	4
6	3
7	1
8	4
9	1
10	4

No	Answer
11	1
12	1
13	3
14	3
15	4
16	4
17	3
18	2
19	3
20	4

No	Answer
21	4
22	3
23	4
24	2
25	1
26	4
27	2
28	4

Qn	Answer
29a	G: Carbon dioxide H: Oxygen
29b	It decreases the rate of gaseous exchange.
29c	Mr Ang. His average heart rate is higher which shows that his heart has to pump faster to transport the more oxygen in the blood to all parts of the body.
30a	The greater the number of pieces the cookie was broken into, the faster the rate of digestion because there was a greater surface area of the cookie in contact with the digestive juices.
30b	The dentures help to chew / break down food into smaller pieces to increase the rate of digestion of food.
31a	Pollination and fertilization.
31b	Ovule
31c	The fruit is eaten by the animal and the seed is thrown away by the animal. OR The fruit is eaten and the undigested seed is passed out as waste by the animal.
31d	The parent plant will pass down the (genetic) information / material / genes to the young plant.
32a	Oxygen
32b	Yellow light. The greatest amount of oxygen / gas was collected.
32c	Distance of the spotlight/light source from the hydrilla / beaker.
32d	The water snails gave out carbon dioxide. The increased amount of carbon dioxide caused the hydrilla to photosynthesize faster and produce more oxygen.
33a	Tank C acts as a control set-up to compare and confirm that any change in amount of oxygen dissolved in water is due to the number of fishes only.
33b	The population of the aquatic plants will decrease. As organism Z cover the walls of the tank and water surface, less/no light can reach the aquatic plants. These plants cannot make food and will die.
34a	$  \begin{array}{c}  Q \rightarrow P \rightarrow T \rightarrow S \\  \searrow \quad \nearrow \\  \quad R  \end{array}  $
34b	Population size of organism R will decrease. With less light in December, organism Q makes less food and population of Q will decrease, so there is less food for R to eat.

34c	Organism T. Organism T feeds on organisms P and R, decreasing their population. There will be fewer organisms P and R to eat organism Q, so organism Q will increase.
35a	More light is detected.
35b	The pupil of its eyes increases in size to allow more light to enter so it can see better at night.
35c	Predators of Snake A mistake it as Snake B, which is poisonous and will avoid eating it.
36a	Liquid state.
36b	The warm water vapour in the room came into contact with the cooler air from the freezer. The water vapour (lost heat) and condensed into water droplets.
36c	The mist evaporated into water vapour or changed into gaseous state and our eyes cannot see the water vapour.
37a	Pot X. The fishballs in pot X had a smaller surface area in contact with the boiling water so they gained heat slower and took a longer time to cook.
37b	Bowl G. It had a smaller volume of hot soup and contained less heat than bowl F. It needs to lose less heat to cool down to room temperature.
38a	Parallel arrangement.
38b	When the switch is closed, there is a closed circuit. The iron rod becomes magnetized and attracts the steel plate which is a magnetic material and causes the striker to hit the bell.
38c	Conductor of electricity; non-magnetic material.
39a	<pre> graph LR     A["kinetic energy (plunger)"] --&gt; B["Elastic Potential energy (compressed spring)"]     B --&gt; C["kinetic energy (pellet)"]     C --&gt; D["sound energy (train)"]     C --&gt; E["kinetic energy (train)"]     E --&gt; F["heat energy (train)"] </pre>
39b	When the plunger is pulled back further, the spring is compressed more and has more elastic potential energy which would be converted to more kinetic energy in the moving pellet and transferred more kinetic energy to the toy train. The toy train would move further/a greater distance.
40a	8 or 9.
40b	The greater the number of springs used to support a load, the shorter the length of the spring.
40c	Gravitational force and elastic spring force. Frictional force ✓ (Better not)
40d	Ace. The springs compressed the least when the load was placed on it. The springs were least elastic / the stiffest and exerts the most (elastic spring) force providing more support.