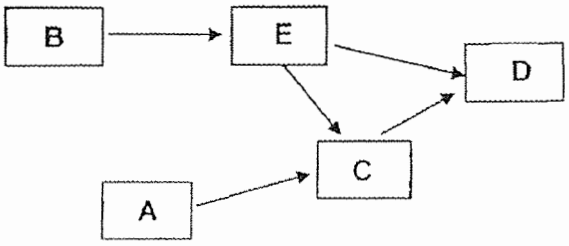
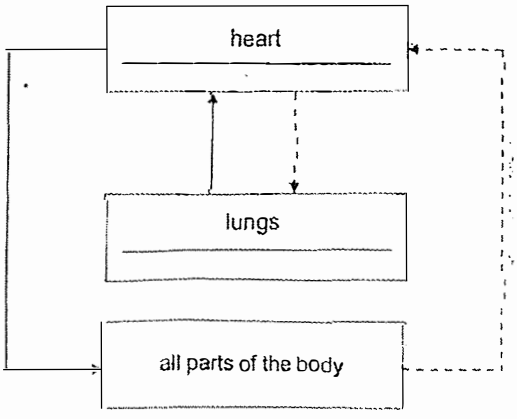
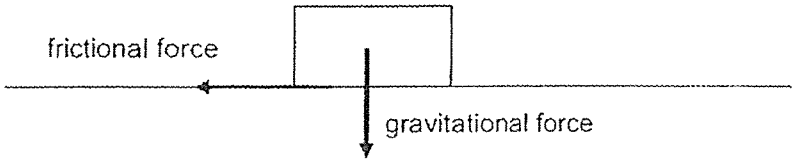
Nanyang Primary School
P6 SCIENCE MID-YEAR EXAM 2021
Answer Key

Booklet A

1	3	6	4	11	2	16	1	21	4	26	3
2	3/4	7	3	12	4	17	4	22	2	27	3
3	3	8	2	13	1	18	4	23	2	28	4
4	4	9	4	14	4	19	4	24	4		
5	2	10	2	15	3	20	3	25	4		

Booklet B

Qn No	Acceptable Answers
29(a)	A community consist of different populations of organisms living together in the same place.
29(b)	Five
29(c)	Organism R helps Organism S to blend into the surroundings so it is not easily seen by predators.
30(a)	(i) Organism R and U. (ii) R will increase. There will be less T feeding on R so the population of R will increase. The population of U will decrease as there is less T for U to feed on.
30(b)	
31(a)	To compare and confirm that the butterflies are attracted to substance X, and not the paper flower.
31(b)	The amount of substance X, when present, has no effect on the number of butterflies attracted to the paper flower.
31(c)	The butterfly will help to pollinate flower A.
31(d)	Having more seeds will increase the chances of the seeds germinating and growing into adult plants.
32(a)	

32(b)	(i) food (ii) water (iii) digested food (iv) oxygen
33(a)	Point X
33(b)	(i) When she exercises, she breathes faster to take in more oxygen and give out more carbon dioxide. (ii) Her heart will beat faster to pump more blood to all parts of her body.
34(a)	Cell A and C. They have cell wall.
34(b)	Cytoplasm. It is where cell activity takes place.
34(c)	The nucleus allows for cell division.
35(a)	mouth, stomach, small intestine
35(b)	(i) The amount of digested food increased as food was digested. (ii) The amount of digested food decreased. Digested food was absorbed into the bloodstream.
36(a)	Potential energy (hanging ball) → Kinetic energy (falling ball) → Heat / sound/ kinetic energy (ball when it hit sand)
36(b)	Ball Q. It had the greatest mass and was hung highest from the sand tray. Hence, most potential energy would be converted to most kinetic energy, causing the deepest dent.
36(c)	Diagram 3
36(d)	To find out if the mass of the ball affects the depth of the dent made.
37(a)	
37(b)	(i) Mass of the block (ii) Comparing blocks P and R, when the mass of the blocks are the same but the surface area in contact with the table is different, the distance travelled by the blocks is the same. Comparing blocks P and Q, the greater the mass of the block, the shorter the distance travelled by the block.
37(c)	Spring B. When identical cubes were placed on the springs, spring B compressed less. Thus, when compressed to the same length, spring B would exert a greater elastic spring force on the blocks.
38(a)	To ensure that the light detected by the light sensor is only from the torch.
38(b)	Cloth sample S. The least amount of light was detected when cloth sample S was placed in the material holder.
38(c)	Light intensity of the torch Thickness of the cloth sample
39(a)	Only the water in the saltwater had evaporated, leaving behind the salt.
39(b)	(i) He could heat up the saltwater. (ii) He could add a fan to increase wind around the saltwater.
40(a)	The air in flask B gained more heat from the water and expanded more.
40(b)	More water was poured into container B.
40(c)	Material S. The temperature of the air in flask B increased less. Material S is a poorer conductor of heat and would conduct heat away from the pizza to the surroundings more slowly.