ANSWER KEY

SCHOOL : ROSYTH PRIMARY SCHOOL

LEVEL : PRIMARY 6

SUBJECT : SCIENCE

TERM : 2021 SA2

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

Q29	a)	No. After he roasted the bread, the amount of mould on both bread
		increased, so it did not kill the mould and it is not safe to eat the bread.
	b)	A had more mould than B. Mould needs warmth to grow. A was put into
		the bag immediately after toasting so it was warmer than B as B was let to
		cool first, thus more mould will grow on A as it is warmer.
Q30	a)	Fertilisation. The male sex cell, sperm, will fuse with the female sex cell.
		When the sperm enters the female sex cell, thus fertilising the egg cell.
	b)	It obtains food and oxygen from the mother's blood.
Q31	a)	The transport of a seed away from the parent plant.
	b)	No. They have different types of wing-like structure, thus it is not fair to
		compare the above seeds.

	c) Y and Z are dispersed by wind, so if there is no wind, Y and Z			
	cannot be dispersed far from parent plant and might result in			
	overcrowding the competition of space, light, water and nutrients			
	among plants resulting in unhealthy Y and Zs.			
Q32)	a) If light was needed for plant food production.			
	b) 0.04%. O could receive light, thus plant in p absorb light and			
	photosynthesised, taking in carbon dioxide and giving out			
	oxygen, so the amount of carbon dioxide in P should decrease			
	and the percentage of carbon dioxide in the jar should be			
	above 0.03%.			
Q33)	a) So that they can use the digested food as energy to do work.			
	b) i)Mouth			
	ii)Set-up 2. Although the amount of digested food in both set-up			
	are the same, food in set-up 2 has a greater exposed surface			
	area. So digestion will be faster.			
	c) Digested food.			
Q34)	a) Our nose takes in air and the air will pass the windpipe to the			
	lungs. The air sacs in the lungs containing many blood vessels			
	will then absorb the air with rich oxygen into the blood. The			
	heart will then pump the blood rich in oxygen to the brain.			
	b) When we take long deep breaths, more oxygen will enter our			
	lungs and be absorbed into the blood to be transported to the			
	brain compared to taking short shallow breath.			
	d)Nitrogen			
Q35)	a) If the material was waterproof.			
	b) Pour the water from the same height.			
	c) 2. All water poured was collected at the bottom of the beaker			
	for Z and it was not the case for X and Y. Thus, Z is water			
	proof. So, when a person wears a life jacket, material Z will not			
	absorb any water and the person's head would continue to be			
	above the water and the person will not sink. So z would be the			
	most suitable to make a life jacket.			
Q36)	a) Poor conductor of heat.			
L	l			

	b) With a thinner 1cm foam layer, it allows more heat transfer from
	the oven to the ice cream compared to 2cm layer, causing ice
	cream to melt first.
	c) Process in which a solid changes to a liquid at a fix
	temperature.
	d) Slower than 12min. The melting point of ice is 0°c higher than
	that of ice cream so it takes longer time to reach melting point.
Q37)	a) AB, BC. CD
	b) When the water droplets gain heat and evaporate to form water
	vapour before coming in contact with the cooler inner surface of
	the lid, lose heat and condense to form water droplets. The lid will
	gain heat. Thus the lid will soon reach the same temperature as
	the water vapour, so when the evaporated water vapour comes
	into contact with the lid, it cannot lose heat and condense to form
	water droplets so there were no more water droplets on lid.
	c) It will decrease. The water gains heat and evaporate to form water
	vapour and thus the volume of water decrease.
Q38)	electric supply
	heating element
Q39)	 a) Electrical energy > Kinetic energy > Heat energy > sound energy b) As the temperature of water of which the clothes are washed increased, the usage of energy increases too.

Q40)	a) Frictional force
	Gravitational force
	b) Change the shape of an object
	c) The gravitational force and frictional force between box and
	surface was greater than his pushing force, so he was unable
	to overcome friction between box and surface and gravity
	pulling him down, thus the box will not move.
	d) Apply oil onto the surface