

Answer Key

EXAM PAPER 2015

SCHOOL : CHIJ

SUBJECT : P6 SCIENCE

TERM : SA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
2	3	2	4	1	3	1	1	4	3
Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
2	3	3	2	1	1	2	4	4	3
Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30
1	3	4	1	1	1	4	3	2	2

31)a)The heart rate of a fit person is lower than the heart rate of an unfit person.

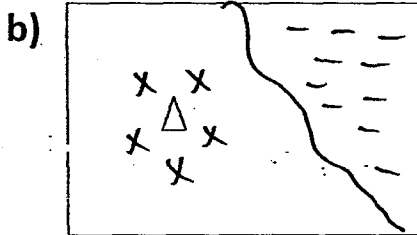
b)When we exercise more energy is needed. The heart needs to deliver more oxygen and digested food for respiration to produce more energy.

32)a)Lynn should record the number of bees that visit the red and white flowers separately.

b)Time is needed for the bees to be attracted to the flowers.

c)When the petals are cut away less bees will be attracted to the flower so the number of flowers pollinated decrease, hence the number flowers that can fertilise to become fruits will be lesser, so the number of fruits produced by the plant over time will decrease.

33)a)The seeds are dispersed by splitting. The seeds are in a pod-like structure which will split open. The seeds will than be dispersed by the explosive action.



c)To prevent overcrowding from happening so that the young plant and the adult pant will not compete for nutrients, water, sunlight. This allows both the young and adult plant to grow healthily.

34)a)The roots grow towards the damp sawdust.

b)No. Germination requires air, warmth and water not light. The seedling have seed leaves to provide them with food and the seedling do not have leaves that will receive sunlight to photosynthesise, so the set-up need not be placed by the window where there was light.

35)a)Anther b)Produces female sex cells

c)Pollen grain d)Egg

36)a)A : Dark blue B : yellowish-brown

b)Repeat the experiment two times.

37)a)The population of the elodea plant will decrease. When the population of water hyacinth suddenly increase, it will cover the surface of the pond, preventing sunlight from reaching the elodea which is right at the bottom of the pond. The elodea will than not be able to photosynthesise, and without food, it will die causing its population to decrease suddenly.

37)b)The frogs could move to another pond community and lay eggs there.

c)No. There are 4 population-frog, water hyacinth, elodea and arrowhead. The fish is not counted as based on the diagram there is only 1 fish. A population is a group of organisms living in the same place at a specific time, hence fish is not considered a population in this case. Dead leaves are also not considered a population as they are dead.

38)a)V : Predator R : Prey

b)No. P is the food producer, a plant. Q is a herbivore which feeds on P. However, P is not considered a prey as preys must be able to escape from its predator but P cannot do so.

c)When the period of daylight is shorter, P, the plant, will photosynthesise lesser, causing P's population to decrease. Q feeds on P with lesser P, Q has lesser food, causing population of Q to decrease.

d)Organism U's population will decrease. W feeds on S so S's population will decrease. S feeds on Q, with fewer S, Q's population will decrease. R feeds on Q, with Q, R's population will decrease. R feeds on U, with more R, U will have more predators, so population will decrease.

39)a)D. K is the part that irons the clothes. Heat is needed to iron clothes, so K must be made of a good conductor of heat and must not easily. D does not break easily and is a good conductor of heat so D is most suitable.

b)H. Ceramic breaks easily is a man-made material. H breaks easily and is a man-made material, so H is most likely ceramic.

40)a)Object Can be seen Cannot be seen

P	✓	
Q		✓
R	✓	
S		✓
T		✓

b)S will be blocked by R so the torch's light will not be able to shine on S for the light to be reflected into Mary's eye.

41)a)To find out which material is the better conductor of heat.

b)A. A felt cooler than B at room temperature which means that A conducted heat away from Peter's hand faster than B, which means A is a better conductor of heat. A will then be able to conduct heat to the ice cube faster than B, so the ice cube on A will melt faster.

42)a)The hot water will gain heat and evaporate into warm water vapour which will lose heat and condense to form water droplets when in contact with the cooler air in the atmosphere.

b)The damp towel is colder than the hot water so when he wipes himself with the damp towel, the damp towel will conduct heat away from his body, cooling him down faster.

c)By letting the water dry by itself, the water will be able to gain more heat from the body and evaporate into water vapour while evaporation the heat from the body is reduced so it helps to bring down the body temperature faster.

43)a)X. At position X, compared to Y, the mallet has more gravitational potential energy that will be converted into more kinetic energy for the ball to move faster compared to when the mallet is released at Y.

b)The speed of the ball will be slower. With a lighter mallet, the amount of gravitational potential energy the mallet has would be lesser so less gravitational potential energy will be converted into lesser kinetic energy, causing the speed of the ball to be slower.

44)a)Frictional force, gravitational force, magnetic of attraction.

b)The excess water will then drip on the window pane, reducing the amount of friction between the window pane and the device, causing the device to be unable to clear the exterior of the window, so the device will must specify.

Water acts as a lubricant. Friction between the device and the glass is reduced, so it cannot grip/attract to the glass.

