

	Biology Answer	Chemistry Answer	Physics Answer
1	Adenine, Thymine, Guanine and Cytosine	a) Colourless b) Pink	Ampere (Amp or A)
2	Hydrogen bonds	a) Red b) Blue	Newton (N)
3	Double Helix	a) Red b) Yellow	N/m
4	Active site	MgCl <sub>2</sub>	Speed (m/s)= (Distance (m))/(Time (s))
5	The point at which the rate of reaction is at its fastest.	Moles = mass ÷ molecular mass	Acceleration (m/s <sup>2</sup> )= (Change in velocity (m/s))/(Time (s))
6	The enzyme denatures - the active site changes shape and the substrate can't fit.	a) Cathode b) Anode	Weight (N)=Mass (Kg) x gravitational field strength (m/s <sup>2</sup> )
7	4	A Compound containing <b>only Hydrogen and Carbon</b> atoms.	same everywhere in series, splits at branches in parallel
8	Sex cell	C <sub>n</sub> H <sub>n+2</sub>	number of waves per second, Hertz (Hz)
9	Water that is safe to drink.	Homologous series	calculate the area under the line
10	pH; light intensity; nitrates in the soil; rainfall/drought	HCl	Volts (V)
11	pH, temperature, substrate concentration	H <sub>2</sub> SO <sub>4</sub>	Density = mass/volume
12	glucose	HNO <sub>3</sub>	kg/m <sup>3</sup>
13	amino acids	An insoluble substance made from the reaction of 2 soluble substances	Watts (W)
14	Fatty acids and glycerol	Height a substance has risen/ Height of solvent front	They are the same
15	pepsin and trypsin	Oxidation is Loss, Reduction is Gain	Coloumb (C )
16	amylase	Anode	rate of folow of electrical charges

17	lipase	Cathode	Energy = mass x gravitational field strength x height
18	Different form of the same gene.	Positive ion	10N/kg
19	Homozygous	Negative ion	Gradient of the line
20	Heterozygous	acid + base --> neutral salt + water	Gradient of the line
21	Name of an organism made using the genus and species e.g. <i>Homo sapiens</i>	They have the same number of electrons and protons	momentum = mass x velocity
22	Phosphate, sugar and base	<b>transferred</b> , from one atom to another (to form ions)	multiply by 60
23	3	<b>shared</b> , between atoms	multiply by 1000
24	2	electrostatic attraction, between oppositely charged ions.	divide by 1000
25	Archaea, Eukarya and bacteria	the sharing of a pair of electrons, to form a full outer shell.	multiply by 1000000
26	Brain size and bipedalism (walking on two feet)	1 + 1 + 16 = 18	multiply by 3600 (60x60)
27	Variation, overproduction, struggle for existence, survival, advantageous	Group 1, Period 3	divide by 1,000,000,000
28	Mitosis	11 protons, 12 neutrons, 11 electrons	kilograms (kg)
29	46	Mix, Filter, Wash, Dry	Pressure = force / area
30	Growth and repair	Select an appropriate acid, add a base IN EXCESS, stir, filter, evaporate (slow).	N/m <sup>2</sup> or Pa