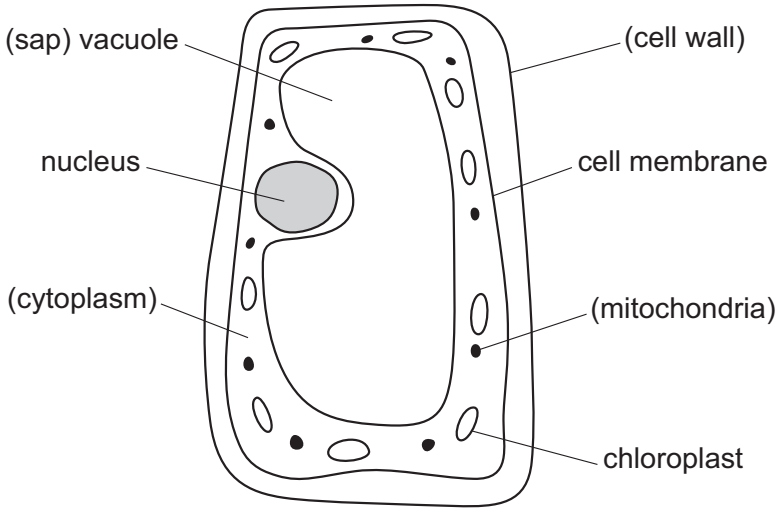
Question	Answer	Marks	Further Information
1		**4**	each correct answer = 1 mark

Question	Answer	Marks	Further Information
2(a)	change in colour of a solution **or** iron has disappeared	**1**	**Accept** a new substance has formed
2(b)	**two/both solutions** react to form an **insoluble** solid	**1**	

Question	Answer	Marks	Further Information
3(a)	<table><tr><th>electrical conductors</th><th><u>not</u> electrical conductors</th></tr><tr><td>A C D</td><td>B E</td></tr></table>	1	**all** letters in correct columns in any order = 1 mark
3(b)	insulator	1	
3(c)	(piece of equipment) ammeter (explanation) solid with the highest current is the best conductor	2	each correct answer = 1 mark

Question	Answer	Marks	Further Information
4(a)	01:02	1	
4(b)	gravitational attraction the Sun **and** the Moon **and** the Earth	2	each correct answer = 1 mark **Accept** gravity **Note** if no marks awarded allow the Moon **and** the Sun

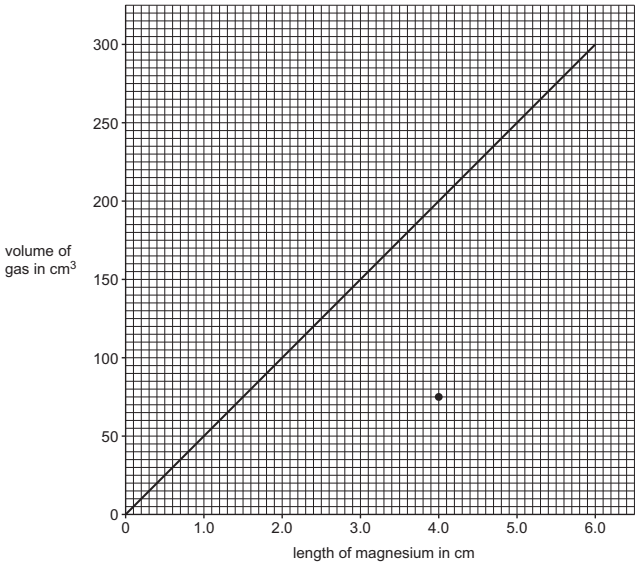
Question	Answer	Marks	Further Information
5(a)	all four ticked	**2**	**four** correct = 2 marks **two or three** correct = 1 marks **Accept** any indication of the correct answer, e.g. circling or underlining, but ticking takes precedence
5(b)	movement sensitivity	**2**	each correct answer = 1 mark **Do not accept** any other characteristics of living organisms

Question	Answer	Marks	Further Information
6(a)	(arrangement) solid in a pattern **or** gas not in a pattern **or** particles in a gas are in a random arrangement (separation) particles in a solid are close together **or** particles in a solid are touching each other **or** particles in a gas are far apart (motion) particles vibrate in solids **or** particles move fast in a gas **or** particles move in any direction in a gas **or** random motion in a gas	**3**	arrangement = 1 mark separation = 1 mark motion = 1 mark **Accept** answers wherever they are written **Ignore** particles are in a fixed position in a solid (for the arrangement mark) **Accept** particles in a solid do not move (in terms of translational motion) **Accept** particles are in a fixed position in a solid (for the motion mark)
6(b)	(idea that) particles are close together	**1**	**Accept** particles are touching

Question	Answer	Marks	Further Information
7(a)	(oxygen) 21 nitrogen (78)	**2**	each correct answer = 1 mark
7(b)	carbon dioxide	**1**	**Accept** helium, neon, argon, krypton, xenon, methane **Do not accept** water, pollutants, e.g. CFCs, carbon monoxide, sulfur dioxide

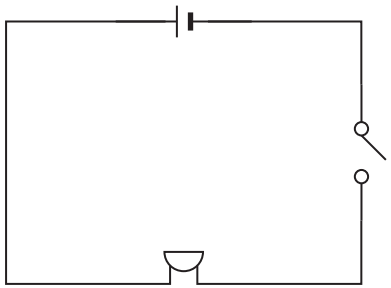
Question	Answer	Marks	Further Information
8(a)	gravity	**1**	**Accept** gravitational attraction
8(b)	(planet) **Z** (explanation) (idea that) the same mass has more weight **or** (planet) has the greatest gravity	**2**	**Ignore** just 'it has more weight' **Accept** greatest gravitational attraction

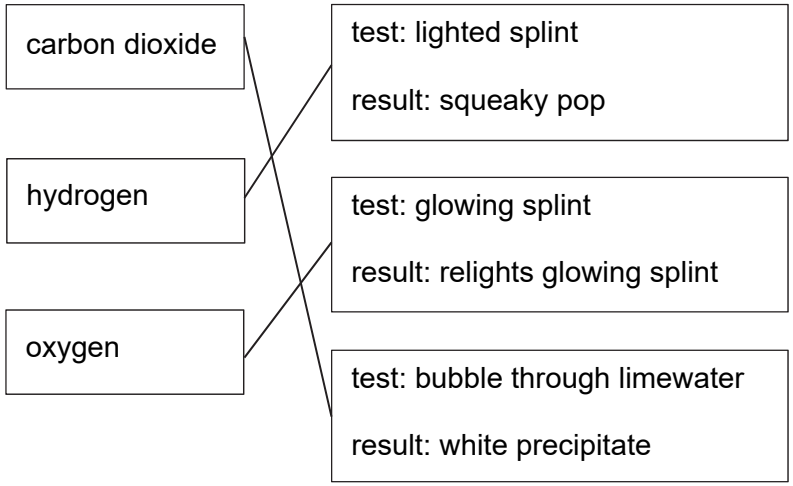
Question	Answer	Marks	Further Information
9	A: (Atlantic) herring B: sheepshead C: (spotted) seatrout D: (common) stingray E: European eel	**2**	**all five** correct = 2 marks **three or four** correct = 1 mark

Question	Answer	Marks	Further Information
10(a)	appropriate linear scales that allows points to be plotted to cover at least half the grid results plotted correctly	**2**	appropriate scales = 1 mark all results plotted = 1 mark **Accept** tolerance of ± half a small square
10(b)	plot circled at (4.0, 75)	**1**	**Accept** 75 circled in table but circle on graph takes precedence
10(c)		**1**	**Accept** line of best fit by eye **Do not accept** dot-to-dot **Note** line of best fit should ignore anomalous point but does not have to go back the origin **Accept** ecf for incorrect plots
10(d)	(volume =) 125 (cm^3)	**1**	**Accept** ecf from line of best fit **Accept** tolerance of ± half a small square from the line of best fit
10(e)	(volume =) 400 (cm^3)	**1**	

Question	Answer	Marks	Further Information
11(a)(i)	(total =) 170	**1**	
11(a)(ii)	(percentage =) 20(%)	**1**	**Accept** ecf from 11(a)(i)
11(b)	**any one from** fish swim (away) might count the same fish twice pond might be deep water might be dirty	**1**	**Accept** any reasonable suggestion
11(c)	repeat (her count)	**1**	**Accept** compare with results from another student

Question	Answer	Marks	Further Information
12	the feather falls faster in the vacuum **or** the feather falls slower in the air there is no air resistance in the vacuum **or** there is air resistance in air the feather has more air resistance than the stone in the container of air	**2**	each correct answer = 1 mark ignore reference to mass of stone or mass of feather

Question	Answer	Marks	Further Information
13(a)	cell buzzer	**2**	each correct answer = 1 mark **Accept** any indication of the correct answer, e.g. ticking or underlining, but circling takes precedence if **three** components circled and **one** is incorrect = 1 mark more than **three** components circled = 0 marks
13(b)	 component drawn in series e.g. 	**2**	correct symbol for switch (open or closed) = 1 mark correct position in series = 1 mark **Note** if switch drawn in parallel **or** broken circuit maximum 1 mark
13(c)	electron(s)	**1**	**Ignore** negative (particle)

Question	Answer	Marks	Further Information
14		**2**	**all three** correct = 2 marks **one** or **two** correct = 1 mark **Note** if **two** lines from a gas to **two** different tests then that gas is incorrect

Question	Answer	Marks	Further Information
15	gas gravity	**2**	each correct answer = 1 mark