

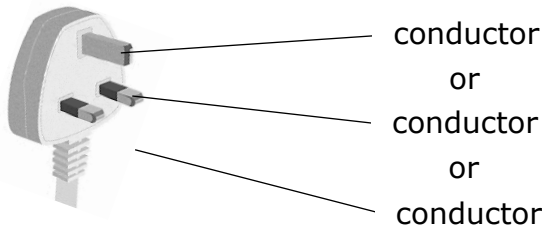
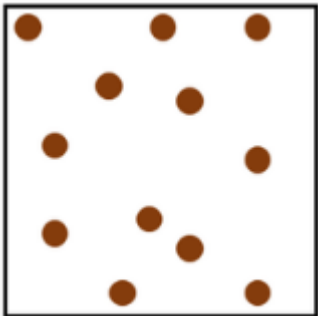
YEAR 7 **INTEGRATED SCIENCE** **MARKING SCHEME**

Question			Answer	Mark
1.	a		seeds → bird → crocodile	3 marks for correct order. 1 mark for correct arrows.
	b		False True False False	1 1 1 1
	c		Growth	1
			Total:	9 marks
2	a		Lucy: running in the lab Max: Playing around with sockets and electricity Leo: smelling chemicals Jo: her hair is untied / hair too close to flame / Bunsen left unattended Phil: eating/drinking in the lab Sam: directing the test tube being heated towards his face (Any 4 correct answers)	1 1 1 1
	b		Heat; Oxygen; Fuel	1, 1, 1
			Total:	7 marks
3	a		Setup X	1
	b		A – Beaker B – wire gauze C - Tripod	1 1 1

	c	i	measuring cylinder	1
		ii	thermometer	1
	d		In setup X, because the blue flame is hotter than the yellow flame and heats water faster	1 1
	e	i	100°C	1 mark for the correct value, 1 mark for the correct unit
		ii	bubbles were observed steam was coming out there was sound as the water boiled (any two)	1 1
	f		Same volume of water Light up both Bunsen burners at the same time Take the volume reading at eye level Check that starting temperature for both beakers is 15°C (any two)	1 1
			Total:	14 marks
4	a	i	Chloroplast (do not accept: chlorophyll) Helps plant cells photosynthesise (accept: contains chlorophyll)	1 1
		ii	Bright red petals attract insects, that help the transfer of pollen. (do not accept: to obtain nectar)	1 1
	b	i	wind-pollination (accept: animal-pollination or water-pollination)	1
		ii	stamen (accept: anther)	1
		iii	it is sticky	1

	c	i	Accept any correct specialised cell (including sperm, ovum/egg, nerve cell, white blood cell, red blood cell, muscle cell) Do not accept: sex cell	1
		ii	Award 1 mark if the correct function tallies with the specialised cell named in question c i.	1
	d		Roots help plants absorb water from the soil. This is important for plants to photosynthesise.	1 1
			Total:	11 marks
5	a	i	The label includes hazard symbols.	1
		ii	Add a few drops of a Universal Indicator to a sample of the product. Observe any colour changes and match them with the pH scale on the label of the indicator.	1 1
		iii.	It will turn blue.	1
		iv.	Neutralisation reaction	1
	b	i	Hydrogen	1
		ii	Hydrogen burns with a 'pop' sound.	1
	c	i	asparagus	1
		ii	cabbage	1
			Total:	9 marks
6	a	i	B	1
		ii	Moves the slide and the lenses closer or further from each other to obtain a focused image.	1
		iii	I agree with this statement, because the eyepiece contains a lens that magnifies the image.	1 1
	b	i	X	1
		ii	Cytoplasm Contains cell parts (organelles) <i>or</i> Allows chemical reactions to take place	1 1

		iii	<p>Animal cells do not have chloroplasts, while plants cells do.</p> <p>Animal cells do not have a cell wall, while plant cells do.</p> <p>Animal cells do not have a central vacuole, while plants cells do.</p> <p>Animal cells are typically spherical while plant cells are typically rectangular.</p> <p>(any two, as long the difference between an animal and a plant cell is described in full)</p>	<p>1</p> <p>1</p>
			Total:	9 marks
7	a		<p>Step 1: production of sex cells</p> <p>Step 2: sexual intercourse</p> <p>Step 3: fertilisation</p> <p>Step 4: pregnancy</p> <p>Step 5: birth</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>
	b	i	<p>1 uterus lining starts to build up again – Day 5 of menstrual cycle</p> <p>2 egg almost reaches uterus and dies – Around day 15 of menstrual cycle</p> <p>3 uterus lining breaks and starts getting lost through vagina – Day 1 of menstrual cycle</p> <p>4 ovary releases an egg – Day 14 of menstrual cycle</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>
		ii	uterus lining breaks and starts getting lost through vagina	1
			Total:	10 marks
8	a	i	the switch is open	1
		ii	<p>there is no battery</p> <p>(accept: there is no cell)</p>	1
		iii	<p>the circuit is disconnected</p> <p>(accept: the circuit has a gap / is broken / is incomplete or any equivalent)</p>	1

	b	i	So that when one light in the house stops working, the other lights in the house will continue functioning.	1
		ii	Rubber gloves are insulators that can protect Martha from possible electric shock.	1
		iii	Chemical energy → Electrical energy	1, 1
	c			1
			Total:	8 marks
9	a	i	Solid: habitat for certain organisms / storage of water Liquid: for chemical reactions / habitat for living organisms / drinking / to cool down / solvent Gas: important for plant health / to keep healthy level of moisture in breathing system	1 1 1
		ii	X – evaporation Y – melting Z – condensation	1 1 1
	b	i		2
		ii	Particles gained (kinetic) energy Started moving faster Started colliding more (any two)	1 1
	c		Liquids Gas Solid Solid	1 1 1 1
			Total	14 marks

10	a		Mammals	1										
	b		Their body temperature is always constant (accept: able to control their body temperature)	1										
	c		Have an ear pinna Give birth to their young Give milk to their young/suckle their young with milk (any two or equivalent)	1 1										
	d		<table><tr><td>the dog is called Chloe</td><td></td></tr><tr><td>the hedgehog is about 20cm long</td><td>✓</td></tr><tr><td>Jennifer thought of naming the hedgehog Lulu</td><td></td></tr><tr><td>the hedgehog had longer bristles at the back of its body</td><td>✓</td></tr><tr><td>the hedgehog had a greyish colour</td><td>✓</td></tr></table>	the dog is called Chloe		the hedgehog is about 20cm long	✓	Jennifer thought of naming the hedgehog Lulu		the hedgehog had longer bristles at the back of its body	✓	the hedgehog had a greyish colour	✓	1 1 1
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	e	i	It is at risk of becoming extinct	1										
		ii	It raises awareness about the importance of these animals It reminds the drivers to pay attention when driving It reduces the risk of hedgehogs being run over (any one or equivalent)	1										
			Total:	9 marks										