

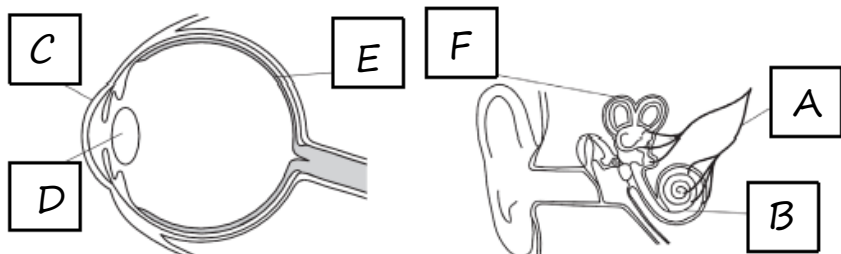


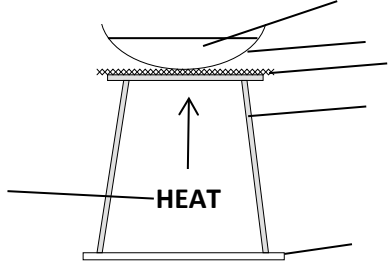
2014 9BA – DRAFT 1

/ means OR eg. green / blue – answer needs green OR blue
 () means additional, not really required eg. Gauze (mat) – gauze would be sufficient
 : means AND eg. red : hot - answer needs red and hot.

Question		Evidence	Marks
One	1.	Any suitable answer – see picture e.g. <ul style="list-style-type: none"> • student listening to music • can't hear instructions from teacher • should not wear them / should be listening to teacher 	1 mark
	2.	Any suitable answer – see picture e.g. <ul style="list-style-type: none"> • have left bottles on the floor • could trip over them • should be on table / shelf 	1 mark
		Allow 1 mark if has only identified 2 dangers but nothing extra of significance added	
Two	(a)	A = measuring : cylinder B = test tube / boiling tube F = Bunsen burner	1 mark; all correct Or ½ mark:2 correct
	(b)	C : G : E	1 mark; all correct
	(c)	Diagram of beaker	Diagram of conical flask
Three	(a)	hazard	½ mark
	(b)	D	½ mark
	(c)	A	½ mark
	(d)	  Toxic AND corrosive symbols!	½ mark; both correct
Four	(a)	28° C 86 mm 43 mL	1½ marks; ½ mark each
	(b)	3.4 cm (units needed)	½ mark
	(c)	2°C	½ mark
	(d)	60 + 5 = 65 s	½ mark

	(e)	(i) 15 mL	(ii) good drawing of volume at 40 mL including meniscus	1 mark; ½ mark each
Five	(a)	chromatography		1 mark
	(b)	C		½ mark
		it has travelled same distance / to same height / to 3 on scale: as banned dye (spot)		1 mark
	(c)	D		½ mark
	(d)	The spots have travelled different distances Answer refers to scale correctly (A – 1, E – 2)		½ mark ½ mark
Six	(a)	solvent dissolving	solute solution	2 marks; ½ mark each
	(b)	(i) filter funnel	(ii) condenser	1 mark; ½ mark each
Seven		Electric oven = heat		1 mark
		TV = light : sound (either order)		1 mark; ½ mark each
Eight				3 marks; ½ mark each
Nine	(a)	Sun : glow worm : tv screen		1 mark; all 3 correct
	(b)	Transparent = glad wrap, water Translucent = waxed paper Opaque: mirror, wood		1 mark; all correct
	(c)	Correct ray drawn : arrow on ray		1 mark; ½ mark each
	(d)	Correct position (2½ squares back) Correct orientation (pencil point to right) Correct size and length (same as object)		1 mark; ½ mark each
	(e)	Light from lamp reflected off hair – hits mirror – is reflected back into her eyes OR correct diagram with arrows on rays		1 mark; all correct
	(f)	Correct second mirror at 45° Correct rays with arrows Rays into eye		1 mark; all correct Or ½ mark:2 correct

Ten	(a)	Balls far apart Balls move randomly	½ mark: both correct	
	(b)	(i) temperature at which solid turns into a liquid	½ mark	
		(ii) gas	½ mark	
	(c)	sunnier day / hotter day / windier day	½ mark	
Eleven	(a)	(i) nucleus	½ mark	
		(ii) a energy level (shell)	½ mark	
	(b)	Protons = 1 Electrons = 2 Mass # = 4	½ mark; all 3 correct	
	(c)	Elements	Compounds	1 mark 4-5 correct
		Helium / He Mercury / Hg Hydrogen / H ₂	Water / H ₂ O Salt / NaCl	
(d)	(i) D (ii) B (iii) C	1 ½ marks; ½ mark each		
Twelve		sugar / grass (either order) (biogas) digester methane (gas) electricity	2 marks; 4-5 correct 1 mark; 2-3 correct	
Thirteen	(a)	Toes on the back feetincreases surface area Long tail ...helps the lizard to balance Brown skin ...for camouflage	1½ marks; ½ mark each	
	(b)	Escape from predators / better catch prey (over water)	½ mark	
	(c)	Food : territory	1 mark; ½ mark each	
Fourteen		a. reproduction b. respiration c. GROWTH d. CIRCULATION e. excretion f. nutrition g. sensitivity h. movement	3 marks; ½ mark each	
Fifteen	(a)	objective lens stage	focus knob 1 mark; 3 correct ½ mark; 2 correct	
	(b)	x400 / 400x	½ mark	

	(c)	Cell membrane Nucleus	1 mark; ½ mark each	
	(d)	Stain (accept name of a stain e.g. iodine or an incorrect stain such as methylene blue)	½ mark	
Sixteen	(a)	(i) evaporated (ii) dissolved (iii) filtered : sterilised (in this order)	1 ½ marks; ½ mark each line	
	(b)	(i) single line drawn – either line of best fit omitting point @ 20°C or smooth freehand line through all points but NOT dot to dot.	1 mark	
		(ii) 48-50 g (but accept value based on their line even if wrong line) – allow f/o	½ mark	
		(iii) as the temperature increases the solubility increases	1 mark	
Seventeen		<ul style="list-style-type: none"> • 2D • Correct symbols for tripod, gauze, evaporating basin and Bunsen • Any 4 correct labels • Nice clean lines, use of ruler etc 		1 marks; 1 mark each
Eighteen	(a)	5	1 mark	
	(b)	12 : 13 (either order)	1 mark	
	(c)	Laptop : computer Wireless network	½ + ½ mark 1 mark	
Nineteen	(a)	1 : 4	1 mark	
	(b)	Effect of height ball was dropped from on bounce height	1 mark	
Twenty		Any 4-5 differences; 2 marks Any 2-3 differences; 1 mark	2 marks	

		<p>Drawing B</p>	
Twenty one	(a)	Polythene ...plastic bag Glass... window pane Aluminium ... drinks can	1 mark; 2-3 correct
	(b)	Any suitable advantage e.g plastic is lighter / plastic does not smash if dropped BUT NOT 'can be recycled' as both can be	1 mark
	(c)	A	1 mark
Twenty two	(a)	D B A C	1 mark
	(b)	Can make its own food (by photosynthesis)	1 mark
	(c)	Grass, shrubs	1 mark; ½ mark each
	(d)	C	1 mark
Twenty three	(a)	Any 2 suitable controlled variables e.g Size of elastic bands Width of elastic bands Length of elastic bands Type / brand of elastic bands etc Same mass added	2 mark; 1 mark each
	(b)	So they were the right temperature / so they didn't cool down	1 mark
	(c)	Hotter bands stretched more than cold bands or equivalent statement	1 mark
	(d)	Any one of: Repeat trials (and average) / record actual temperatures / do a range of temperatures	1 mark
Twenty four	(a)	Info is added to table 620 990 good	1 mark

	(b)	copper	1 mark
	(c)	sand	1 mark
Twenty five	(a)	Thunder : live band	1 mark
	(b)	Any values around: School disco 90-110 School exam room 20-30	2 marks; 1 mark each
Twenty six	(a)	Salt dissolves, sand does not	1 mark; ½ mark each
	(b)	Filter paper (filter) funnel	1 mark; ½ mark each
	(c)	It is caught by the filter paper	1 mark
	(d)	Heat it / leave it in a warm place	1 mark
Twenty seven	(a)	B	½ mark
	(b)	Seeds found on opposite side of tree from B	½ mark
	(c)	To make it a fair test experiment To make time measured accurate (to small distance = too short time)	2 marks; 1 mark each
	(d)	5 s	½ mark
	(e)	The time to fall increases / it takes longer to fall	1 mark
	(f)	Weight of paper/model Type of paper Height dropped from Draughts in room Method of release Mass of paper clip Position of paper clip etc	1 ½ marks; ½ mark each