



**2009 Science**

**Standard Grade – Foundation**

**Finalised Marking Instructions**

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**2009 Science – Standard Grade**

**Foundation Level**

**Marking Scheme**

Please note that **FRACTIONAL** marks should **NOT** be awarded for responses to questions on this paper.

Please note that where a question specifies circling or underlining, other forms of clearly indicating a response are acceptable.

			Space for Notes
<b>1</b>	<b>(a)</b>	12 and 6 both required	<b>PS1</b>
	<b>(b)</b>	Internal bleeding and shock	<b>PS1</b> must say “internal” extra information, eg open wound, apply cancelling errors
<b>2</b>	<b>(a)</b>	blue	<b>KU1</b>
	<b>(b)</b>	Earth (wire)	<b>KU1</b> <u>not</u> fuse or fuse wire
<b>3</b>	<b>(a)</b>	C (The material has been treated so that it does not catch fire easily)	<b>KU1</b>
	<b>(b)</b>	<u>Idea that</u> washing removes the flame-proofing	<b>KU1</b> eg the washing wears it away the chemical fades away the treatment is taken out  <u>NOT</u> they have been washed too much

		Space for Notes
4	Polystyrene Nylon Steel Copper  All correct, 2 marks 2, 3 correct, 1 mark	<b>KU2</b> <u>must</u> use given materials
5	(Uses) batteries  (produces) sound (energy)  television                  cooker  All correct, 2 marks 2, 3 correct, 1 mark	<b>PS2</b> Accept: TV for television
6	Any <b>one</b> from  Coal Gas Oil Wood Peat Solar Ground heat    or other reasonable answer	<b>KU1</b> Ignore <u>extra</u> information eg    coal fire solar panels gas heater  <u>NOT</u> fire alone insulation electricity wind power/wave etc used to generate electricity

			Space for Notes
7	(a) (i) decreases	PS1	
	(ii) D or 17 and 70	PS1	
	(b) Any <b>one</b> from Paper/cardboard Plastic Metal Clothes Glass	KU1	<p><u>NOT</u>: Named plastics or metals <u>NOT</u>: Named objects only eg bottles, cans</p> <p>Ignore: Additional information eg glass (bottles) metal (cans)</p>
8	(a) 60	KU1	
	(b) (i) increased	KU1	
	(ii) recovery	KU1	
	(c) Strength/power or Suppleness/flexibility	KU1	<p>do not accept “endurance” do not accept “speed” do not accept “agility”</p>

			Space for Notes
9	(a) A (blood)	KU1	
	(b) lower warmer (both required)	KU1	
10	(a) Bees, wasps, termites  All three required	PS1	
	(b) Wasps	PS1	
	(c) <u>Collect</u> food/ <u>get</u> food Look after the young Repair the nest  All three required	PS1	Ignore “unable to reproduce”
	(d) Any <b>two</b> from  Lay eggs or can reproduce/can lay (up to) 30 000 eggs (Much) bigger Can live for many years/can live for 50 years/can live longer  Both required	PS1	

			<b>Space for Notes</b>
<b>11</b>	Fine gravel Coarse gravel	Plastic cup Perforated base  All correct, 2 marks 2, 3 correct, 1 mark	<b>PS2</b>
<b>12</b>	<b>(a)</b> Any <b>two</b> from  Coal Oil (Natural) gas Peat		<b>KU1</b>
	<b>(b)</b> Oxygen		<b>KU1</b>
<b>13</b>	<b>(a)</b> 7800		<b>PS1</b>
	<b>(b)</b> 3200		<b>PS1</b>
			Accept correct answer from space for working box Ignore transcription errors
			Follow through from incorrect answers to part (1) ie 11000 – (a) Accept correct answer from space for working box Ignore transcription errors

			Space for Notes
<b>14</b>	<p><b>(a)</b> Carbon monoxide Tar Nicotine</p> <p style="text-align: right;">All correct, 2 marks 1, 2 correct, 1 mark</p>	<b>KU2</b>	
	<p><b>(b)</b> Any <b>one</b> from</p> <p>Named cancer (apart from lung cancer) Bronchitis Emphysema Heart disease</p>	<b>KU1</b>	<p>Accept asthma Accept heart attack/heart failure not “cancer” only not “lung disease”</p>
<b>15</b>	<p><b>(a)</b> As time increases, blood alcohol level decreases</p>	<b>PS1</b>	Accept “hours” for “time”
	<p><b>(b)</b> 60</p>	<b>PS1</b>	
	<p><b>(c)</b> Any <b>one</b> from</p> <p>Aggressive Violent Slow reactions Sleepiness</p>	<b>KU1</b>	<p>Accept also irresponsible behaviour or examples eg drunk driving fighting</p> <p>Accept also mental health problems or example eg depression</p>

		Space for Notes
16	(a) Leaves	KU1
	(b) Caterpillar	KU1
	(c) leaves → caterpillar → toad → fox or leaves → caterpillar → shrew → fox	KU1
17	(a) (Contains) triangles	KU1
	(b) Any <b>two</b> from  Sand Grit Gravel/aggregate Stones/chuckies Cement Water	KU1 <u>NOT</u> mud soil clay lime



			<b>Space for Notes</b>
<b>18</b>	<p><b>(a)</b> Water Land Air</p> <p style="text-align: right;">All correct, 2 marks 1, 2 correct, 1 mark</p>	<b>KU2</b>	<u>Must</u> use given words
	<b>(b)</b> A (Creating wildlife parks)	<b>KU1</b>	
<b>19</b>	<p><b>(a)</b> Any <b>two</b> from</p> <p>Hydro Wind Waves Geothermal Tidal Biomass or example</p> <p style="text-align: right;">Any two, 1 mark each</p>	<b>KU2</b>	<p>Accept “water” for “hydro”</p> <p>Ignore extra information eg wind turbine</p>
	<b>(b) (i)</b> As light/intensity increases, the voltage (produced) increases (and vice versa)	<b>PS1</b>	<p>Accept “units” for light/intensity</p> <p>Accept “mv” for voltage</p>
	<b>(ii)</b> 35	<b>PS1</b>	

				<b>Space for Notes</b>		
<b>20</b>	<b>(a)</b>	2 and 3		<b>PS1</b>		
	<b>(b)</b>	If the volume (of water) made any difference		<b>PS1</b>	<u>NOT</u> reference to volume <u>of alcohol</u>	
<b>21</b>	<b>(a)</b>	Indian (Ocean)	73	8000	<b>PS2</b>	
		Atlantic (Ocean)	82	8000		
		Pacific (Ocean)	165	1 1000		
		All correct, 2 marks 6, 7, 8 correct, 1 mark				
	<b>(b)</b>	3 bars with labels correct, 2 marks 1/2 bars with labels correct, 1 mark		<b>PS2</b>	do not accept bars without labels do not accept labels without bars	
<b>22</b>	<b>(a)</b>	Misha		<b>PS1</b>		
	<b>(b)</b>	Annie		<b>PS1</b>		

			<b>Space for Notes</b>
<b>23</b>	<p><b>(a)</b> 5, 6 points correctly plotted and joined, 2 marks  4 points correctly plotted and joined, 1 mark  5, 6 points correctly plotted but not joined, 1 mark</p>	<b>PS2</b>	Bar graph      zero marks
	<p><b>(b)</b> As length (of wire) increases, the resistance increases  (or vice versa)</p>	<b>PS1</b>	Accept “cm” for “length” Accept “ohms” for “resistance” Accept the resistance goes up (by 0.15) every time you add (10) cm
	<p><b>(c)</b> Any answer <b>between</b> 0.30 and 0.45</p>	<b>PS 1</b>	
<b>Totals</b>		<b>KU 30</b> <b>PS 30</b>	

[END OF MARKING INSTRUCTIONS]