



2013 Science

Standard Grade Foundation

Finalised Marking Instructions

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Part One: General Marking Principles for Science Standard Grade Foundation

This information is provided to help you understand the general principles you must apply when marking candidate responses to questions in this Paper. These principles must be read in conjunction with the specific Marking Instructions for each question.

- (a) Marks for each candidate response must always be assigned in line with these general marking principles and the specific Marking Instructions for the relevant question. If a specific candidate response does not seem to be covered by either the principles or detailed Marking Instructions, and you are uncertain how to assess it, you must seek guidance from your Team Leader/Principal Assessor.
- (b) Marking should always be positive ie, marks should be awarded for what is correct and not deducted for errors or omissions.

GENERAL MARKING ADVICE: Science Standard Grade Foundation

The marking schemes are written to assist in determining the “minimal acceptable answer” rather than listing every possible correct and incorrect answer. The following notes are offered to support Markers in making judgements on candidates’ evidence, and apply to marking both end of unit assessments and course assessments.

Marking

The utmost care must be taken when entering and totalling marks. Where appropriate, all summations for totals must be carefully checked and confirmed.

Where a candidate has scored zero marks for any question attempted, “0” should be entered against the answer.

Recording of Marks

Where papers assess more than one element, care must be taken to ensure that marks are entered in the correct column.

The **Total** mark for each paper or element should be entered (in red ink) in the box provided in the top-right corner of the front cover of the answer book (or question/answer book).

Always enter the **Total** mark as a **whole number**, where necessary by the process of rounding up.

The transcription of marks, within booklets and to the Mark Sheet, should always be checked.

Markers are reminded that they must not write comments on scripts – comments include words or acronyms.

Ticks, crosses, lines and numbers are acceptable.

Part Two: Marking Instructions for each Question

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
1	a	34 and 31 both required, any order	PS1
1	b	Alaskan pipeline and Oil transportation	PS1
			All four words required with no additional information accepted e.g. Alaskan pipeline , Oil production and transportation, zero marks
2	a	meat/meat products or alternatives 1 mark fruit and/or vegetables 1 mark	KU2
			Accept fish, poultry, chicken, nuts/beans/pulses for meat alternatives Accept meat and/or vegetables/fruit on one line for 2 marks if no other answer given ; if another answer is given, e.g. water, maximum 1 mark Not cheese/dairy/ protein for meat Not single named fruit or vegetable/salad Not any answer which includes any of the given information e.g. meat and carbohydrates
2	b	Anorexia	KU1
			Apply cancelling errors

				Space for Notes	
3	a	Producers grass pondweed	Consumers beetle sparrow	KU1	
		All required			
3	b	(The) Sun		KU1	Apply cancelling errors
4		move rocks upwards Love (waves)	body (waves) Secondary (waves)	PS2	For 'move rocks upwards' <u>Accept</u> <ul style="list-style-type: none"> • move up(wards) • rocks up(wards) <u>Not</u> <ul style="list-style-type: none"> • up • upwards • move rocks
		All correct, 2 marks 2,3 correct, 1 mark			

			Space for Notes
5	a	Any one from Suppleness (flexibility) Stamina (endurance)	KU1 Not <ul style="list-style-type: none"> • Speed • Power • Strength (given in question)
5	b	Idea of <u>Regular</u> exercise/training/visit to gym/sport Exercise <u>for longer</u> Exercise <u>more</u> <u>Intense</u> exercise	KU1 Not <ul style="list-style-type: none"> • Exercise alone e.g. go to gym • Healthy eating ideas • Stop smoking
6	a	Walls	PS1
6	b	floor and windows Both required	PS1
6	c	60	PS1 Accept answer from space for working
7		Arch, triangles 1 mark each	KU2

			Space for Notes										
8	<p>a Any one from</p> <p>Oil, gas, wood, peat or other named fuel</p>	KU1	NOT coal (given in stem) electricity										
8	<p>b Any one from</p> <p>Idea of operating electrical appliances (or named example), light(ing), cook(ing), heating <u>water</u></p>	KU1	NOT electricity heating (given in question)										
9	<table border="0"> <thead> <tr> <th>Use of material</th> <th>Property</th> </tr> </thead> <tbody> <tr> <td>concrete supports in a bridge</td> <td>good electrical conductivity</td> </tr> <tr> <td>stainless steel sink</td> <td>good thermal conductivity</td> </tr> <tr> <td>brass pins on an electric plug</td> <td>good strength</td> </tr> <tr> <td>copper pans</td> <td>good resistance to corrosion</td> </tr> </tbody> </table> <p>3 correct , 2 marks 1,2 correct, 1 mark</p>	Use of material	Property	concrete supports in a bridge	good electrical conductivity	stainless steel sink	good thermal conductivity	brass pins on an electric plug	good strength	copper pans	good resistance to corrosion	KU2	
Use of material	Property												
concrete supports in a bridge	good electrical conductivity												
stainless steel sink	good thermal conductivity												
brass pins on an electric plug	good strength												
copper pans	good resistance to corrosion												

				Space for Notes
10	a	2 and 3	PS1	
10	b	Idea of If the thickness (of the mineral/wool) made any difference	PS1	
11	a	125	PS1	
11	b	100	PS1	
11	c	Accept answers 380-400 inclusive	PS1	
12	a	Shelter Water Both required	KU1	
12	b	C conservation	KU1	

			Space for Notes
13	Lung cancer, heart disease, bronchitis All correct, 2 marks 1,2 correct, 1 mark	KU2	Four responses 3 correct and 1 incorrect, 1 mark
14 a	Fox and weasel	KU1	
14 b	Any one from Hedgehog or toad	KU1	
14 c	Any one from Green plant → caterpillar → hedgehog → fox Green plant → slug → hedgehog → fox Green plant → slug → toad → fox	KU1	

				Space for Notes	
15	a	Giraffe 4 Sloth 20 Hamster 14 Guinea pig 7	8 correct, 2 marks 5,6,7 correct, 1 mark	PS2	Information can be shown in any order
15	b	3 bars correct height and full label or key 2 marks 2 bars correct height and full label or key 1 mark		PS2	Information can be shown in any order Accept follow through error from part (a) Top of bar for guinea pig must be shown between lines i.e. not 6.8 or 7.2

			Space for Notes	
16	a	Oxygen	KU1	
16	b	Idea that they are finite, running out, non-renewable	KU1	
17		Glass beads Distillation flask Liebig condenser Conical flask All correct 2 marks 2/3 correct 1 mark	PS2	
18	a	3	KU1	
18	b	1	KU1	

			Space for Notes
19	a	1200(°C)	PS1
19	b	Silicic (magma)	PS1
19	c	underwater	PS1
19	d	Any two from Silicic (magma) Slow moving (Temperature) 700(°C)	PS1
20	a	Idea that it can be used again	KU1
20	b	Any one from Glass, paper, cardboard, clothing, wood, food waste, metal (or named example of material but not object alone)	KU1 <u>Accept</u> <u>Not</u> glass bottles plastic (given in stem) bottles cans

			Space for Notes
21		Earth (wire), fuse 1 mark each	KU2 <u>Not</u> safety wire green/yellow wire
22	a	i decreases	PS1
22	a	ii Idea of As volume (of water) increases, the time (to boil) increases (or vice versa)	PS1 <u>Not</u> conclusions relating to power rating <u>Accept</u> litres/l for volume seconds/s for time
22	b	Any value between 225 and 460	PS1
23	a	zinc	KU1
23	b	cement and sand both required	KU1

				Space for Notes
24	a	Idea of As temperature increases, resistance decreases (or vice versa)	PS1	<u>Accept</u> ohms for resistance °C for temperature
24	b	220	PS1	
25	a	560	PS1	Accept answer from space for working
25	b	1280 1680 and 400 extracted from table	PS2	Accept answer from space for working
		2 marks 1 mark		

[END OF MARKING INSTRUCTIONS]