



EXAMINATIONS COUNCIL OF ESWATINI
Eswatini Primary Certificate Examination

SCIENCE
Mark Scheme
Specimen
Paper 2

513/02
for examination from 2025 - 2027

Confidential

MARK SCHEME
513/02

This document consists of 6 printed pages.

GENERAL NOTES

Mark Schemes will use these abbreviations:

- ; separates marking points
- / separates alternatives for a marking
- R reject
- A accept (for answers correctly cued by the question, or
- AW alternative wording (where responses vary more than usual)
- MP mark point- used in guidance notes when referring to numbered marking points

- ORA or reverse argument/reasoning
- OWTTE or words to that effect
- I ignore/irrelevant – this response gains no mark, but any following correct answers can gain marks

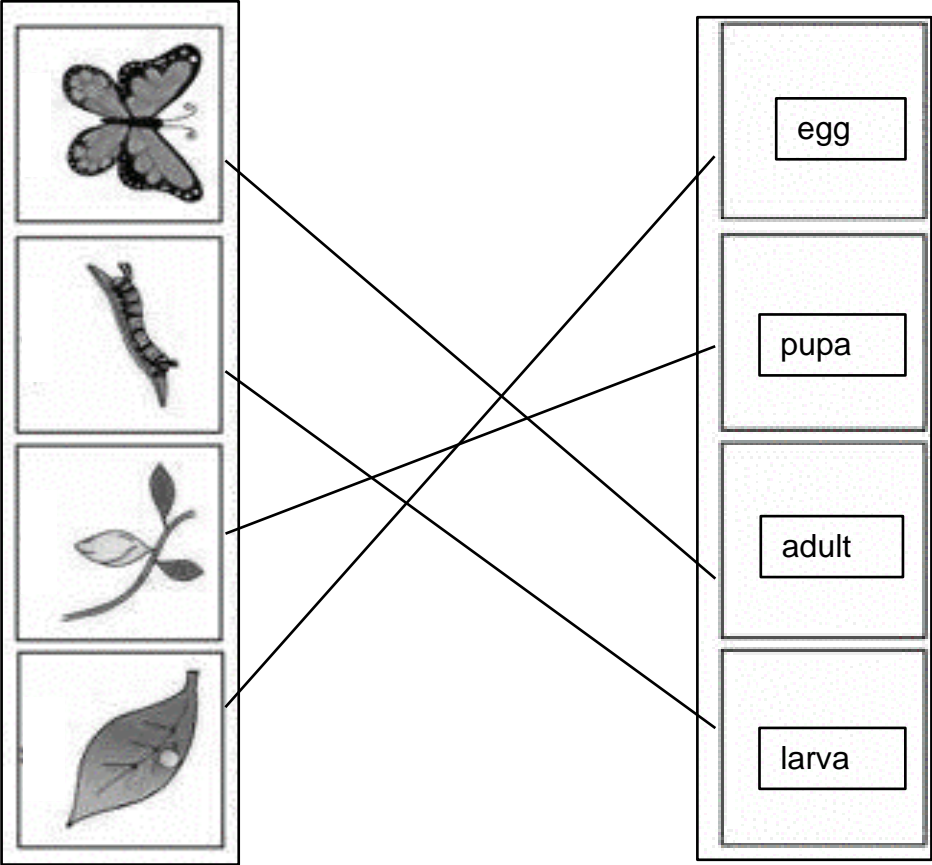
- () the word/ phrase in brackets is not required to gain marks but sets context of response for credit. e.g. (waxy) cuticle. Waxy not needed but if it was described as cellulose cuticle then no mark.

- small underlined words- this word only (grammatical variants excepted)
- D, L, T, Q quality of drawing/ labelling/ table / writing as indicated by mark scheme
- max indicates the maximum number of marks that can be given

Question	Answer	Mark										
SECTION A												
1 (a) (i)	eye;	1										
(ii)	pain/ touch;	1										
1 (b) (i)	backbone;	1										
1 (b) (ii)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">description</th> <th style="text-align: left;">class of vertebrates</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">lives in water. Body is covered in scales. Does not care for its young ones.</td> <td style="text-align: center; padding: 5px;">mammal</td> </tr> <tr> <td style="padding: 5px;">lives on land. Body is covered in fur. Gives birth to live young ones.</td> <td style="text-align: center; padding: 5px;">reptile</td> </tr> <tr> <td style="padding: 5px;">lives both on land and in water. lays jelly-like eggs. Does not care for its young ones</td> <td style="text-align: center; padding: 5px;">fish</td> </tr> <tr> <td style="padding: 5px;">lays leathery eggs on land. Body is covered with scales</td> <td style="text-align: center; padding: 5px;">amphibian</td> </tr> </tbody> </table>	description	class of vertebrates	lives in water. Body is covered in scales. Does not care for its young ones.	mammal	lives on land. Body is covered in fur. Gives birth to live young ones.	reptile	lives both on land and in water. lays jelly-like eggs. Does not care for its young ones	fish	lays leathery eggs on land. Body is covered with scales	amphibian	3
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1 (b)(iii)	constant/ does not change;	1										
(c)	ref to. education / monitoring / game reserves / AVP;	1										
(d)	no backbone; exoskeleton;	2										
2 (a) (i)	non-contact force;	1										
2 (a) (ii)	repel (each other) /repulsion;	1										
2 (a) (iii)	nail; needle;	2										
2 (b)	any one from: rubber/tire sole; grooves on sole; spikes;	1										
2 (c) (i)	C; rougher / more rough;	2										

2(c) (ii)	easier to light (the match);	1
(d)	friction is a force between two moving surfaces in contact / contact force; gravity is a force that makes objects fall to the ground on earth / non-contact force;	2
3 (a) (i)	liquid;	1
3 (a) (ii)	shape: not fixed/takes shape of container; volume: fixed;	2
3 (b)(i)	freezing;	1
3 (b)(ii)	reversible; no new substance formed;	2
3 (c) (i)	sand;	1
3 (c) (ii)	<i>any one from:</i> smooth when rubbed between fingers; sticky when wet;	1
3 (d)	fewer bubbles; + <i>any one from:</i> large/ covering most of the space given; realistic diagram;	2
4(a) (i)	sepal;	1
(a)(ii)	stigma;	1
(b) (i)	animal;	1
(b) (ii)	<i>any one from:</i> reduce competition (for nutrients/ water/ sunlight/space); colonise new areas;	1
4 (c) (i)	summer;	1
(c) (ii)	arrow anti-clockwise direction;	1
(iii)	revolution; $365\frac{1}{4}$ days;	2
4 (d)	<i>any one from:</i> crates; rock; moon soil;	1

4 (e)	Venus, Saturn, Neptune; Award a mark for all three correct	1									
5 (a) (i)	<i>any three from:</i> pour water in the Eureka can to level of spout; place measuring cylinder on spout of Eureka can; gently lower potato into Eureka can (to collect flowing water); read volume of water in measuring cylinder (equals volume of potato);	3									
5 (a) (ii)	<i>any one from:</i> take reading from the bottom of meniscus; place Eureka can/measuring cylinder on flat surface;	1									
5 (a) (iii)	use a string to lower the potato;	1									
5 (b) (i)	<table border="1"> <thead> <tr> <th></th> <th>observation</th> <th>conclusion</th> </tr> </thead> <tbody> <tr> <td>chalk</td> <td>does not dissolve</td> <td>insoluble;</td> </tr> <tr> <td>sand</td> <td>does not dissolve</td> <td>insoluble;</td> </tr> </tbody> </table>		observation	conclusion	chalk	does not dissolve	insoluble;	sand	does not dissolve	insoluble;	2
	observation	conclusion									
chalk	does not dissolve	insoluble;									
sand	does not dissolve	insoluble;									
5 (b) (ii)	heat/increase temperature;	1									
5 (b) (iii)	<i>any two from:</i> pour solution into evaporating dish/appropriate container; heat solution; water evaporates leaving salt (powder);	2									
6 (a) (i)	temperature;	1									
6 (a) (ii)	D: no germination; E: germination;	2									
6 (a) (iii)	seeds germinate at suitable temperature/room temperature;	1									
6 (a) (iv)	boil water; add layer of oil;	1									

<p>6 (b) (i)</p>		<p>2</p>
<p>6 (b) (ii)</p>	<p><i>any two from:</i> a pair of antennae; body divided into three parts / head, thorax, abdomen; segmented abdomen;</p>	<p>2</p>