

Unit 3 Life on Earth Key Area 1 Revision Questions Mark Scheme

1. D
2. A
3. D
4. B
5. C
6. B
7. D
8. C
9. D
10. B
11. C
12. D
13. A
14. B
15. A
16. B

17.

(a)	(i)	19	1	
	(ii)	(Up to 10 seeds sown, the percentage of seedlings surviving remains constant and thereafter) as the number of seeds (sown) increases the percentage (of seedlings) surviving decreases.	1	Also acceptable: as the number of seeds (sown) decreases the percentage (of seedlings) surviving increases (until 10 seeds and then it remains constant). Not acceptable: percentage of seeds surviving decreases.
	(iii)	They/plants/seeds/seedlings/organisms are the same species.	1	Not acceptable: any reference to 'fighting'. Any additional reference to requiring resources must be correct.
(b)		Tick in first box.	1	More than one tick negates.
(c)		Light/sunlight/nutrients/minerals/space.	1	Not acceptable: - light intensity - food.

18. All the organisms living in a particular area and the non-living components (with which they interact)

1

19. Stickleback 1

20.

(i)	Flat (periwinkle) Don't live on/occupy the same position on the shore/ live on different/separate parts of the shore/small live at high tide and flat live at low tide/one lives at low tide and one at high tide	1	Not acceptable: <ul style="list-style-type: none"> • don't live in the same place • they are further or furthest apart/away from each other
(ii)	They are different species/they are not the same species/more than one species are competing	1	The addition of information about resources it must be 'similar'.

21.

(a)	(i)	<ul style="list-style-type: none"> • (The general trend is) as the distance increases, numbers/population/lugworms increases up to 12 metres 1 • After that, numbers/population remains steady/stays the same 1 	<p>2</p>	<p>Must mention change point at 12 metres for both marks For example 'numbers increase then levels off' = 1 mark</p> <p>If the candidate accurately describes the pattern from 1m to 4m that is acceptable, but wrongly described will forfeit 1 mark.</p>														
	(ii)	<p>3</p>	<p>1</p>															
(b)	(i)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="text-align: center;"><i>Predator</i></th> <th colspan="2" style="text-align: center;"><i>Type of Competition</i></th> </tr> <tr> <th style="text-align: center;"><i>Intraspecific</i></th> <th style="text-align: center;"><i>Interspecific</i></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">rex sole and curlew</td> <td></td> <td style="text-align: center;">✓</td> </tr> <tr> <td style="text-align: center;">curlew and curlew</td> <td style="text-align: center;">✓</td> <td></td> </tr> <tr> <td style="text-align: center;">rex sole and dover sole</td> <td></td> <td style="text-align: center;">✓</td> </tr> </tbody> </table>	<i>Predator</i>	<i>Type of Competition</i>		<i>Intraspecific</i>	<i>Interspecific</i>	rex sole and curlew		✓	curlew and curlew	✓		rex sole and dover sole		✓	<p>1</p>	<p>Extra ticks negate</p>
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