

Assessment Schedule

Biology: Describe animal behaviour and plant responses in relation to environmental factors (90716)

Evidence Statement

Q	Achievement	Achievement with Merit	Achievement with Excellence
ONE (a)	Describes that the majority of nests contain 10–20 eggs; number of nests with more eggs, then declines.		
(b)	Describes female lizard behaviour as nest sharing OR more than one lizard has laid eggs in the same nest.	Explains that nests containing more than 9 eggs must be the result of communal egg-laying.	
(c)	Describes an activity as improving reproductive success Eg: <ul style="list-style-type: none"> • Saves energy • Less predation • Not many places to lay eggs • More protection. 	The behaviour is explained as a means to greater reproductive success Eg: <ul style="list-style-type: none"> • Co-operative breeding saves energy • Communal egg laying provides safety in numbers. 	
(d)	Describes the lizard behaviour as Eg: <ul style="list-style-type: none"> • (Dominance) hierarchy • Territorial behaviour • Agonistic behaviour. 	Explains that the advantage to the male is linked to the behaviour strategy described Eg: <ul style="list-style-type: none"> • Dominant males gain more mating attempts / more successful at accessing resources • Sub-ordinate males: don't waste time and energy in competing with dominants. 	
(e)	Describes female lizard behaviour as an identification of the features of throat colour or head bobbing as the basis for mate choice OR Defines courtship.	Explains that courtship display serves to indicate both <ul style="list-style-type: none"> • male quality (genetic quality) through duration of head bobbing or quality of display / throat pouch inflation • correct species. 	Discusses a benefit of courtship display in that it also serves to E.g. <ul style="list-style-type: none"> • Reduce aggression • Identify sexual maturity • Synchronise readiness for mating.
TWO (a)	Describes mutualism.		
(b)	Describes advantages to plants and wasps; plants: reduction in number of grazers attacking them and wasps: food source.	Explains how the plant and animal are advantaged by the relationship Eg: <ul style="list-style-type: none"> • reduction in grazers may result in higher plant productivity • wasps can conserve energy as they find their way to a beneficial food source. 	

(c)	<p>Nastic response is described as a non-directional response to a diffuse stimulus</p> <p>OR</p> <p>Describes the response as leaf folding when a predator / grazer touches the plant.</p>	<p>Explains the nastic response in terms of how it aids the plant's survival</p> <p>Eg:</p> <ul style="list-style-type: none"> Startles grazer Apparently less food for grazers. 	<p>Discusses the significance of the nastic response to include adaptive advantage / disadvantages</p> <p>E.g.</p> <ul style="list-style-type: none"> Easily reversed to resume photosynthesis Reduced photosynthesis may lead to lowered carbohydrate production in the short term.
THREE (a)	Describes rhythm as circadian.		
(b)	Describes the stimulus as light.		
(c)	Describes that both cycles rely on the same stimulus.	Explains that the cycles are linked. CO ₂ uptake (and thus carbon fixing) can only happen when light stimulates stomata to open.	
(d)	Describes the rhythm as circatidal.		
(e)	<p>Describes advantage to the larvae of synchronised vertical displacement</p> <p>Eg:</p> <ul style="list-style-type: none"> Dispersal occurs at high tide. Feeding – food is in the top / bottom of the water column. Avoiding predation – sinking down will keep them away from surface feeding predators. 	Explains that the endogenous rhythm acts to enhance survival via dispersal / feeding or predation.	<p>Discusses the post high tide peak of activity as a link to survival.</p> <p>Eg:</p> <ul style="list-style-type: none"> Larvae movement from estuary into open ocean on the outgoing tide is important for species dispersal / decreases intraspecific competition.

Judgement Statement – 2008

Achievement	Achievement with Merit	Achievement with Excellence
<p>Total of NINE opportunities answered at Achievement level or higher.</p> <p>9 × A</p>	<p>Total of at least NINE opportunities answered with FOUR at Merit level or higher.</p> <p>4 × M + 5 × A</p>	<p>Total of at least NINE opportunities answered with ONE at Excellence level and FOUR at Merit level or higher.</p> <p>1 × E + 4 × M + 4 × A</p>