



Rewarding Learning

**General Certificate of Secondary Education
2011–2012**

Science: Single Award (Modular)

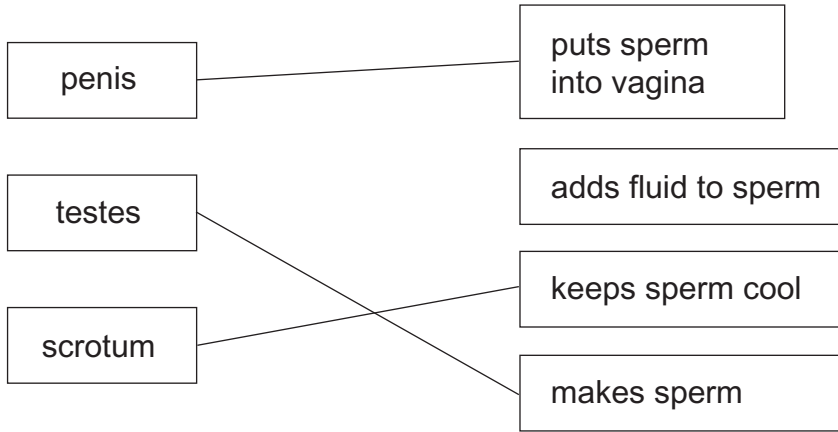
Staying Alive
Module 1
Foundation Tier

[GSC11]

**TUESDAY 8 NOVEMBER 2011
1.30 pm–2.15 pm**

**MARK
SCHEME**

1 (a)



[3]

(b)

Changes	Boys only	Girls only	Both
height increase			✓
sperm produced	✓		
ovulation		✓	
pubic hair grows			✓
voice deepens	✓		
hips widen		✓	

[3]

(c) hormone, males

[2]

8

2 (a) (i) Any **two** in correct sequence = 1
D B C A

[2]

(ii) area A

[1]

(iii) iodine

[1]

(b) (i) oxygen

[1]

(ii) A, (it,/rate) increases as light increases

[2]

(iii) Any valid:
greenhouse, more bulbs, clean glass, mirrors

[1]

8

AVAILABLE MARKS

			AVAILABLE MARKS		
3	(a)	(i) 400kCal	[1]	8	
		(ii) for protein/growth, more active	[2]		
	(b)	(i) alcohol	[1]		
		(ii) solid food	[1]		
		(iii) fat droplets/emulsion/cloudiness/2 layers/fat rises to top	[1]		
	(c)	(i) positive in presence of any amount of fat/can't measure it	[1]		
(ii) to prevent excess being eaten/named details of health problems e.g. heart disease, diabetes, obesity/on diet/have balanced diet/limit intake/ <u>eat</u> health		[1]			
4	(a)	(i) repeat or implied	[1]	8	
		(ii)	6 plots – 2		
			4 or 5 – 1		
			Line – 1		[3]
	(iii) 2 min	[1]			
	(iv) 3 min	[1]			
	(v) longer/slower/increase	[1]			
	(b)	Any one from: free gyms, more PE in school, advertising	[1]		
5	(a)	(i) A so cuttings will be healthy, B so cuttings don't dry out	[2]	7	
		(ii) asexual	[1]		
		(iii) Any two from: desirable characteristics; quicker; many plants saves money; grow at same rate	[2]		
	(b)	Any two from: human rights, embryos killed, determining gender, playing God not natural; no variation	[2]		
	6	(a)	cider/oranges/lemon show improvement; oranges/lemon contain vitamin C; sulphuric acid/vinegar/seawater contains no vitamin C		[3]
(b)		(i) respiration	[1]		
		(ii) Glucose + Oxygen \longrightarrow Carbon Dioxide + Water + Energy equation one mark for each side. Deduct [1] for no arrow	[2]		
Total				45	
				6	