



Rewarding Learning

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

Science: Single Award (Modular)

Chemical Patterns and our Environment

Module 3

Foundation Tier

[GSC31]

MONDAY 21 MAY 2012

9.15 am–10.00 am

**MARK
SCHEME**

			AVAILABLE MARKS
1	(a) (i) barium chloride	[1]	5
	(ii) hydrochloric acid	[1]	
	(iii) flammable	[1]	
	(b) easier to see/understand internationally recognised some people cannot read <i>any two</i>	[2]	
2	(a) fish fingers – freezing tea leaves – drying baby onions – pickling in vinegar	[3]	5
	(b) bacteria, fungi	[2]	
3	(a) (i) the noble gases are very unreactive	[1]	5
	(ii) helium, neon or any other	[2]	
	(b) (i) potassium	[1]	
	(ii) hydrogen	[1]	
4	(a) (i) fossil	[1]	6
	(ii) sedimentary	[1]	
	(iii) metamorphic	[1]	
	(b) slate sedimentary basalt	[3]	
5	(a) shell, electron, neutron	[3]	7
	(b) 3	[1]	
	(c) protons and neutrons (either order)	[1]	
	(d) lithium Li	[2]	
6	(a) (i) copper, unreactive <i>must have copper for 2nd mark</i>	[2]	5
	(ii) hydrogen	[1]	
	(b) too reactive, safety reason	[2]	

7	(a) burette, pipette (not teat), syringe	[1]	AVAILABLE MARKS 6
	(b) 14	[1]	
	(c) 25 (cm ³)	[1]	
	(d) neutralisation	[1]	
	(e) sodium chloride, water (either order)	[2]	
8	(a) to improve appearance/more attractive/appealing	[1]	6
	(b) hyperactivity, allergies, migraines, cancer <i>any two</i>	[2]	
	(c) difference of opinion	[1]	
	one for use	[1]	
	one for avoiding	[1]	
Total			45