



Rewarding Learning

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

Science: Double Award (Modular)

Using Materials and Understanding Reactions

End of Module Test

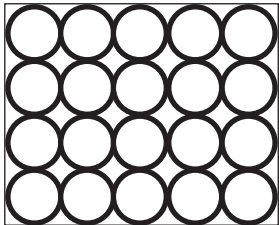
Foundation Tier

[GDB01]

WEDNESDAY 9 NOVEMBER 2011

9.15 am–10.00 am

**MARK
SCHEME**

			AVAILABLE MARKS	
1	(a)	Hazard	[1]	4
	(b)	Idea of warning of danger or idea that people who cannot read will recognise the symbol Do not allow the idea of eye-catching or different spoken languages	[1]	
	(c) (i)	Idea that the fuel is flammable	[1]	
	(ii)	Idea that the plant food is harmful (allow irritant)	[1]	
2	(a)	high melting point	[1]	4
	(b)	metal/glass	[1]	
	(c)	malleable unreactive	[1] [1]	
3	(a)	liquid to a gas	[1]	4
	(b)	saturated	[1]	
	(c)		[1]	
	(d)	chlorine (<i>not chloride</i>)	[1]	
4	(a)	low melting point dull low density brittle 3 correct = 2 2 correct = 1	[2]	4
	(b)	magnesium hydroxide [1] sodium nitrate [1]	[2]	
5	(a) (i)	zinc chloride [1]		4
	(ii)	sulphuric acid [1]	[2]	
	(b) (i)	copper sulphate/zinc chloride	[1]	
	(ii)	copper oxide	[1]	

- 6 (a)** Any **two** from:
sugar
citric acid
carbon dioxide [2]
- (b)** water [1]
- (c)** cola (drink)
allow fizzy drink or sugar solution or citric acid solution [1]
- (d)** carbon dioxide (gas) causes the drink to be fizzy [1]
idea that the solubility of gases decreases as the temperature increases [1] [2]
- 7 (a)** 3 different elements [1]
- (b)** 2 oxygen atoms [1]
- (c)** 5 [1]
- (d)** 1^- or -1
(**not** negative or $-$) [1]
- (e)** hydrogen (ion) [1]
allow H^+ (**not** H) [1]
- 8 (a)** Idea that the brown colour has spread throughout the gas jars [1]
- (b)** (3rd option) some of the oxygen moved into the lower jar and some of the bromine moved into the top gas jar [1]
- (c)** diffusion [1]
- 9**
- | Particle | Relative charge | Relative mass | Position in atom: shells/nucleus |
|----------|-----------------|------------------|----------------------------------|
| proton | +1 | 1 [1] | nucleus [1] |
| electron | -1 [1] | $\frac{1}{1840}$ | shells |
| neutron | 0 | 1 [1] | nucleus |
- [4]
- 10 (a)** Soap (solution) [1]
- (b)** Idea it takes most soap solution to produce a lather [1]
- (c)** A [1]
- (d)** C [1]

AVAILABLE
MARKS

6

5

3

4

4

11	Mass number	Number of protons	Number of neutrons	Number of electrons
	206	82	124	82
	207	82	125	82
	208	82	126	82
	[1]	[1]	[1]	[1]

[4]

AVAILABLE MARKS

4

12 (a) False

[1]

(b) True

[1]

(c) True

[1]

(d) True

[1]

4

Total

50