

WJEC Chemistry 2  
Option – Foundation Tier  
2.1 Mark Scheme

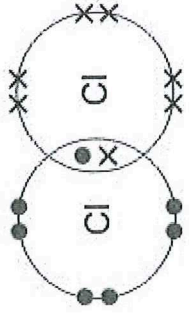
Question	Marking details	Marks available				
		AO1	AO2	AO3	Total	Prac
4	(a) (i) (2,8) (1) 2- accept -2 (1)		2		2	
	(ii) Na <sub>2</sub> O (1) 2 in the box (1) formula must be correct for balancing mark to be awarded		2		2	1
	(b) C		1		1	
	(c) (i) giant covalent	1			1	
	(ii) diamond hard (1) graphite soft (1) fullerene hollow (1)	3			3	
	<b>Question 4 total</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>9</b>	<b>1</b>
						<b>0</b>

Foundation Tier only questions

Question	Marking details	Marks available						
		AO1	AO2	AO3	Total			
1	<p>(a)</p> <p>(baby bath) thermometer nappies award (2) for all four correct award (1) for any two correct</p> <p>thermochromic pigment hydrogel</p>	2			2			
	<p>(b)</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 200px; margin-bottom: 10px;">nano-silver in dressings for cuts and burns</div> <div style="border: 1px solid black; padding: 5px; width: 200px; margin-bottom: 10px;">antibacterial</div> <div style="border: 1px solid black; padding: 5px; width: 200px; margin-bottom: 10px;">nano-titanium dioxide in sunscreen creams</div> <div style="border: 1px solid black; padding: 5px; width: 200px; margin-bottom: 10px;">blocks harmful UV light</div> <div style="border: 1px solid black; padding: 5px; width: 200px; margin-bottom: 10px;">breaks down dirt</div> <div style="border: 1px solid black; padding: 5px; width: 200px; margin-bottom: 10px;">strong and light</div> </div>	2			2			
<b>Question 1 total</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>

Common questions

Question	Marking details	Marks available					
		AO1	AO2	AO3	Total	Maths	Prac
8/1 (a) (i)	<p>award (1) for each mistake identified [no explanation required but should be K<sup>+</sup> and (2,8)]</p>		2		2		
(ii)	ionic		1		1		
(iii)	C	1			1		
(b)	<p>award (2) for correct answer if not correct award (1) for shared pair of electrons accept dots used to represent all electrons</p>		2		2		
<b>Question 8/1 total</b>		<b>1</b>	<b>5</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>

Question	Marking details	Marks available				
		AO1	AO2	AO3	Total	Maths Prac
6	(a)			1	1	
	(i)	D and E both needed				
	(ii)	B		1	1	
	(iii)	C		1	1	
(b)	 <p>shared pair (1) octet (1) accept with all dots/crosses ignore any inner shells drawn</p>		2	2		
(c)	(i)	V 2+ (1) accept +2				
	(ii)	Y 1- / - (1) accept -1 award (1) for V ⇒ positive and Y ⇒ negative	2	2	2	
		VY <sub>2</sub>	1	1	1	

Question	Marking details	Marks available				
		AO1	AO2	AO3	Total	Maths Prac
(iii)	<p>83 (2)</p> <p>award (1) for correct answer not to nearest whole number e.g. 82.9 / 82.98 / 82.97</p> <p>if answer incorrect award (1) for any of following 39 x 2 78 82 0.83 41</p>		2		2	
	<b>Question 6 total</b>	<b>0</b>	<b>7</b>	<b>3</b>	<b>10</b>	<b>2</b> <b>0</b>