

# Change of State

## Mark Scheme 1

<b>Level</b>	IGCSE
<b>Subject</b>	Physics
<b>Exam Board</b>	Edexcel IGCSE
<b>Module</b>	Single Award (Paper 2P)
<b>Topic</b>	Solids, Liquids and Gases
<b>Sub-Topic</b>	Change of State
<b>Booklet</b>	MArk Scheme 1

**Time Allowed:** 9 minutes

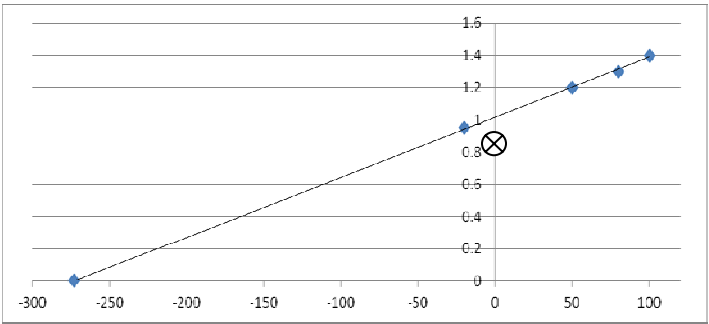
**Score:** /7

**Percentage:** /100

**Grade Boundaries:**

A*	A	B	C	D	E	U
>85%	775%	70%	60%	55%	50%	<50%

Question number		Answer	Notes	Marks									
1 (a)		<table border="1" data-bbox="527 456 1100 722"> <tr> <td data-bbox="527 456 743 597">temperature</td> <td data-bbox="743 456 926 597">point of nitrogen</td> <td data-bbox="926 456 1100 597">boiling point of water</td> </tr> <tr> <td data-bbox="527 597 743 660">in °C</td> <td data-bbox="743 597 926 660">-196</td> <td data-bbox="926 597 1100 660"></td> </tr> <tr> <td data-bbox="527 660 743 722">in Kelvin</td> <td data-bbox="743 660 926 722"></td> <td data-bbox="926 660 1100 722">373</td> </tr> </table> <p data-bbox="426 803 758 829">one mark for each correct;;</p>	temperature	point of nitrogen	boiling point of water	in °C	-196		in Kelvin		373	ignore -273	2
temperature	point of nitrogen	boiling point of water											
in °C	-196												
in Kelvin		373											

<p>1 (b) (i)</p> <p>(ii)</p>	<p>Plotting to nearest half-square (minus one for each plotting error, up to max 2 marks) ;;</p> <p>line of best fit that intersects x-axis between -250 and -300;</p> <p>point (0, 0.85) circled or otherwise indicated;</p> 	<table border="1" data-bbox="1241 347 1644 716"> <thead> <tr> <th>Temperature in °C</th> <th>Volume in litres</th> </tr> </thead> <tbody> <tr> <td>-20</td> <td>0.95</td> </tr> <tr> <td>0</td> <td>0.85</td> </tr> <tr> <td>50</td> <td>1.20</td> </tr> <tr> <td>80</td> <td>1.30</td> </tr> <tr> <td>100</td> <td>1.40</td> </tr> </tbody> </table>	Temperature in °C	Volume in litres	-20	0.95	0	0.85	50	1.20	80	1.30	100	1.40	<p>3</p> <p>1</p>
Temperature in °C	Volume in litres														
-20	0.95														
0	0.85														
50	1.20														
80	1.30														
100	1.40														
<p>b(iii)</p>	<p>Reading from graph to nearest small square (<math>\pm 5</math> degrees);</p>		<p>1</p>												