

## Mark scheme – Revision Pack1

1-

Part	Mark	Answer	Accept	Additional guidance
<b>a</b> 1/2d	1	any <b>one</b> from * size of pieces of tablet  * surface area of the tablet	accept 'size of tablet' accept 'whether the tablet is whole <b>or</b> crushed' accept 'form of the tablet' accept 'particle size' accept 'mass of each piece' accept 'number of pieces'	<i>do not accept</i> 'mass of tablet'
<b>b</b> 1/1b	1	any <b>one</b> from * crushed tablets will dissolve more quickly than whole tablets * a whole tablet will take longer to dissolve  * the bigger the surface <b>or</b> area the faster it dissolves	accept 'the finer the tablet the quicker it dissolves' accept 'the smaller the pieces the faster it dissolves'	<b>answers must include a comparison</b> award a mark for an answer in the past tense if a comparison is included
<b>c</b> 1/2d	1	* temperature of the water	accept 'temperature'	
<b>d</b> 1/2j	1	any <b>one</b> from * the higher the temperature the quicker the tablet dissolves * the lower the temperature the longer it takes to dissolve		<b>answers must include a comparison</b> 'at the lowest temperature it takes a long time to dissolve' is insufficient 'at the highest temperature it dissolves quickly' is insufficient
<b>e</b> 1/2j	1	* 40	accept a temperature from 38 to 44	
<b>Total</b>	<b>5</b>			



**Science Department**  
**2023-2024**

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Part	Mark	Answer	Accept	Additional guidance
<b>a</b> 1/2e	1	any <b>one</b> from * to make sure the water in the boiling tube had reached the required temperature * to make sure the rate stabilised <b>or</b> adjusted to the new temperature	accept 'time for the water in the test-tube to heat up' accept 'let it settle first' accept 'the bubbles reach a steady pace' accept 'to get rid of bubbles from the liquid' accept 'to get rid of trapped bubbles'	
<b>b i</b> 1/2i	1	* a smooth curve through all six points		
<b>b ii</b> 1/2k	1	* a temperature from 32 to 38	accept any reading consistent with the maximum point on the drawn curve	
<b>c</b> 1/2l	1	any <b>one</b> from * A, B, C * the first three readings * between 10°C and 30°C  * between A and C	accept 'A, B, C and D'  accept 'between 10°C and 40°C' accept '10°C, 20°C and 30°C' <b>or</b> '10, 20, 30' accept 'between A and B' <b>or</b> 'between A and D' <b>or</b> 'between B and D'	<i>do not accept</i> 'between C and D'
<b>d</b> 1/2p	1	any <b>one</b> from * use smaller intervals of measuring the temperature * use temperatures between 30°C and 40°C	accept an example of specific intervals such as 'do it at intervals of 2°C' accept 'take more measurements' accept 'take a reading at 35°C'	<b>answers must refer to the collection of data rather than to the presentation of data</b> 'repeat the test' is insufficient but may be accepted with additional measurements
<b>Total</b>	<b>5</b>			

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Part	Mark	Answer	Accept	Additional guidance
(a)	1	* Glossy <b>or</b> it would have more <b>or</b> higher bubbles than the others	accept 'more bubbles'	<i>do not accept</i> 'lots of bubbles'
(b)	1	any <b>one</b> from * to make the test fair * if they use different amounts it will be unfair	accept 'it is a controlled experiment'	
(c)	1	any <b>one</b> from * they could not compare the amounts of bubbles * they could not compare them * they could not tell which was better * they could not tell the difference * they could not know which made the most bubbles	accept 'they were all the same'  accept an appropriate practical problem which would prevent the collection of valid results such as 'the bung stops the bubbles' <b>or</b> 'the test-tubes are not long enough' <b>or</b> 'they used too much washing-up liquid'	<i>do not accept</i> 'the bubbles all went to the top' <i>do not accept</i> 'they could not see how many bubbles there were'
(d)	1	any <b>one</b> from * Shine will have most bubbles * Shine will make most froth	accept 'Shine made the most bubbles' accept 'Shine would produce more bubbles than glossy'	
<b>Total</b>	<b>4</b>			

4-

Part	Mark	Answer	Accept	Additional guidance
(a)	1	* No ✓ <b>and</b> any <b>one</b> from * sulphuric acid did not cure scurvy * not all the sailors recovered * only two pairs recovered * only those that had fruit-related additions recovered * some with acid failed to recover  * a week is not long enough to show the effect	accept 'some acids did not cure scurvy' accept 'only pair 5 totally recovered'  accept 'a week is not long enough'	if more than one box is ticked, award no mark <b>both</b> the answer and the explanation are required for the mark  'only those who received vitamin C recovered' is insufficient
(b) (i)	1	any <b>one</b> from * addition to their diet * food <b>or</b> drink supplements * type of acid	accept 'the acid' accept 'amount of acid'	<i>do not accept</i> 'type of food <b>or</b> drink' <i>do not accept</i> 'kind of meal'  <i>do not accept</i> conclusions such as '4 out of 6 pairs of sailors had scurvy'
(ii)	1	any <b>one</b> from * whether they recovered * return to health * recovery from scurvy * effect after one week	accept 'scurvy is cured'	<i>do not accept</i> 'time to recover'

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## ASPIRE INTERNATIONAL SCHOOL

Part	Mark	Answer	Accept	Additional guidance
(c)	1	any <b>one</b> from * there must be a different substance <b>or</b> something present in fruits that cures scurvy	accept 'fruits will cure scurvy' accept 'vitamin in the fruit would cure scurvy' accept 'vitamin C will cure scurvy' accept any named vitamin for vitamin C accept 'vitamins would have an effect'	'the acids in oranges and lemons cure scurvy' is insufficient 'oranges and lemons will cure scurvy' is insufficient
(d)	1	any <b>one</b> from * effects due to diet may take more than a week to reveal themselves * the body takes time to adjust to the diet * time is needed for the results to reveal themselves * the effects do not take place before a week * the longer the time the more reliable the results	accept 'one week is too short' <b>or</b> 'you need to see long term effects'  accept 'oranges <b>or</b> lemons might be a short term cure'	
<b>Total</b>	<b>5</b>			