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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Question Number	Answer	Mark
1 (a)	<p>To ensure the pressure remains constant (1)</p> <p>Or</p> <p>To keep the pressure at atmospheric pressure (1)</p> <p>[Accept to allow room for the air to expand]</p>	1
1 (b)	<p>(The boiling water may make) the air expand too quickly</p> <p>Or</p> <p>(The boiling water may make) the air expand too much (1)</p> <p>(So) the sulfuric acid could escape (1)</p>	2
1 (c)(i)	<p>Stir the water (1)</p> <p>Place the thermometer close to the capillary tube (1)</p>	2
1 (c)(ii)	<p>There are too few readings (1)</p> <p>Or</p> <p>The range of temperatures is too small</p> <p>To draw an accurate best fit line</p> <p>Or</p> <p>To be certain of a linear relationship (1)</p> <p>Which may lead to inaccuracy in the value of θ (1)</p> <p>MP3 dependent on MP1 OR MP2</p>	3
	Total for question	8