Guideline on the AL & ASL Physics TAS for Student
1. **INTRODUCTION**

The Teacher Assessment Scheme (TAS) has been established to enhance the practical approach encouraged in the syllabus and to assess practical skills and affective characteristics which cannot easily be tested in an examination. The Scheme involves continuous assessment of various aspects of the candidates’ knowledge and abilities over the entire period of the Advanced Level Course. The assessment should form part of the normal teaching programme so that the candidates will feel less of the pressure associated with formal practical examinations.

The TAS is treated as a separate paper (Paper 3) of the examination. The contribution of each paper to the final subject mark is as follows:

<table>
<thead>
<tr>
<th>A-level</th>
<th>Paper 1</th>
<th>(3 hr)</th>
<th>Theory</th>
<th>42%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Paper 2</td>
<td>(3 hr)</td>
<td>Theory</td>
<td>43%</td>
</tr>
<tr>
<td>or</td>
<td>Paper 3</td>
<td></td>
<td>TAS</td>
<td>15%</td>
</tr>
<tr>
<td>Paper 4</td>
<td>(1 hr)</td>
<td></td>
<td>Practical</td>
<td>15%</td>
</tr>
<tr>
<td>AS-level</td>
<td>Paper 1</td>
<td>(1 hr 10 min)</td>
<td>Theory</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>Paper 2</td>
<td>(1 hr 50 min)</td>
<td>Theory</td>
<td>52%</td>
</tr>
<tr>
<td>or</td>
<td>Paper 3</td>
<td></td>
<td>TAS</td>
<td>15%</td>
</tr>
<tr>
<td>Paper 4</td>
<td>(1 hr)</td>
<td></td>
<td>Practical</td>
<td>15%</td>
</tr>
</tbody>
</table>

TAS is **compulsory** for all school candidates.

2. **GENERAL REQUIREMENT FOR THE TEACHER ASSESSMENT SCHEME**

(a) **Record and experimental work**

Each candidate is required to keep a complete record of all the practical work performed in the A-level Physics course especially those used for assessment. Teachers should provide the necessary occasions/activities to the students for meeting the requirements stipulated in the Scheme. A warning should be issued to students (AL105) who are frequently absent from assessment activities, fail to submit work for assessment or fail to meet the minimum requirements.

(b) **Plagiarism and disqualification**

In entering candidates for the A-level Physics Examination the Principal and TAS teacher(s) of a school accept an obligation to provide sufficient supervision to ensure that the work for which the assessments are made is that of the candidate concerned. It is essential that all candidates and staff concerned aware that candidates are forbidden to indulge in any unfair practice, e.g. plagiarism in the preparation of assignments required for assessment as these assignments form part of the examination. Any candidate who uses or is suspected of using any unfair means is to be reported immediately to the HKEA. If the HKEA is satisfied that a breach of the regulations has occurred, the candidate will be liable to be disqualified from the current A-level Physics Examination or the whole of the current A-level Examination.

(c) **By the end of the A-level course**

Candidates’ should return all assessed work to their S7 Physics teacher for custody after the theory examination. Samples of candidates’ work will be collected by the HKEA for moderation purposes.
(d) **Making Assessments**

(1) The assessments should be made over the two years of the A-level course, i.e. some in S6 and some in S7. Except for S7 repeaters, under no circumstances should a teacher make all assessments in S7 and none in S6 or vice versa.

(2) **Students should be informed clearly at the beginning of the course the various requirements and regulations of the Scheme and be given the Summary of the Scheme on Physics TAS (Appendix IV).** Whether the students are made aware that their work is being assessed for examination purposes on a specific occasion is at the discretion of the individual teacher.

(3) A teacher may wish to fine tune the assessment marks of a student through oral interaction while observing the student’s work. Oral interaction may be in the form of questions and answers, oral presentations or informal interviews with the students.

(4) Help or advice may be offered to students who experience problems with any work which is being done for assessment. In these cases, it may be appropriate to deduct some marks, depending on the amount of help given.

(5) The Scheme requires the teacher to exercise control and supervision over all work on which assessments are carried out. This will ensure that the work assessed is the candidate’s own and thus plagiarism will be prevented. However, it is possible that some work may be completed outside class time (e.g. writing the proposal of a project). **If a candidate is found to have engaged in plagiarism, the teacher will have to discount completely the exercise concerned and a mark of “0” be awarded to that particular assessment.**

(6) **The marks for individual assessments should be recorded on the student’s work as part of the normal feedback from the teacher. This will also facilitate the moderation process. However, the final TAS mark, as submitted to the HKEA, must not be divulged to the students.**

### 3. THE SCHEME OF ASSESSMENT AND CRITERIA FOR AWARDING MARKS

The assessment consists of two areas:

(A) Performance in practical work 60%
(B) Reporting of practical work 40%

**Zero marks**

Zero marks will be given in the following conditions:

(a) if students fail to produce any work for Areas A and B,
(b) if students are found to indulge in unfair practice such as plagiarism.

**Absences**

There are two types of absences:

(i) **Legitimate absence**

The Scheme is flexible enough to cope with occasional absences or even absences over a long period for legitimate reasons (e.g. illness) in all the assessment areas.

(ii) **Deliberate absence**

If the teacher considers the absence to be deliberate, then “X” should be entered in the absence indicator column of the Maintain Student Assessment Screen. If a candidate fails to meet the minimum number of assessments required because of deliberate absence, the deliberate absence will be taken as an assessment occasion in arriving at the final mark for the skill.
3.1 **AREA A: PERFORMANCE IN PRACTICAL WORK**

**A-level**
A minimum of 4 assessments (at least 1 assessment in each year) should be made. The total of the best 4 assessments will be taken as the mark for Area A.

**AS-level**
A minimum of 3 assessments (at least 1 assessment in each year) should be made. The total of the best 3 assessments will be taken as the mark for Area A.

(maximum 10 marks for each assessment)
(weighting of Area A = 60%)

3.2 **AREA B: REPORTING OF PRACTICAL WORK**

Candidates are required to keep a record of all the experiments performed in the two years

**A-level**
A minimum of 8 assessments should be made of which at least 2 must be full reports (double weighting). The total of the best 8 assessments will be taken as the mark for Area B.

**AS-level**
A minimum of 4 assessments should be made of which at least 1 must be full reports (double weighting). The total of the best 4 assessments will be taken as the mark for Area B.

The maximum mark on any one assessment occasion for Area can only be 10.

The criteria involved are as follows:
(Some criteria may not be applicable to certain types of experiment.)

**Quality of the written accounts on the procedures and techniques**

(1) Suitable techniques, including apparatus and materials to be used, are stated.
(2) The procedure shows a logical ordering of steps and is written up clearly.
(3) Various precautions are mentioned and explained.

**Quality of the recording and presentation of results**

(1) The record of results indicates a high quality of accuracy. Appropriate units are stated.
(2) Results are presented in appropriate forms such as tables or graphs.
(3) Calculations where necessary are clearly shown.

(Note: Students should be made aware that when carrying out an experiment, it sometimes happens that they may obtain results that deviate from their expectation or contradict with the theory. In such a case, they should be encouraged to present the anomalous results in an honest way, and consider whether these results suggest the need for modifying the experimental procedure. Thus zero mark or a mark penalty should not be made solely for such results. It is acceptable to allow students to analyse and interpret results obtained by others if they cannot generate appropriate data or their own results are faulty.)

**Quality of the interpretation of the results and conclusion**

(1) Trends and patterns in data are recognized.
(2) Appropriate interpretations are made on the results in relation to the problem under investigation.
(3) A clear awareness is shown on the limitations of the methods used, sources of errors and their influence on the accuracy of the results obtained.
(4) Any unusual or anomalous observations are considered and their significance is assessed.
(5) Suggestions for improvement in technique and for further investigations are given where appropriate.
(6) Appropriate conclusions are drawn, supported by reasoned arguments. Consideration is given to the physical significance of the conclusions obtained.

(maximum 10 marks for each assessment)
(weighting of Area B = 40%)
APPENDIX

Summary of the AL/AS Physics TAS

For AL

<table>
<thead>
<tr>
<th>Assessment Area</th>
<th>Minimum No. of Assessments</th>
<th>Specific Requirements</th>
<th>Mark Calculation Method</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Performance in practical work</td>
<td>4</td>
<td>(at least 1 in each year)</td>
<td>Total of best 4. 0 – 10 marks for each assessment</td>
<td>60</td>
</tr>
<tr>
<td>B Reporting of practical work</td>
<td>8</td>
<td>At least 2 full reports.</td>
<td>2 full reports (double weighting) + total of best 6. 0 - 10 marks for each assessment</td>
<td>40</td>
</tr>
</tbody>
</table>

For AS

<table>
<thead>
<tr>
<th>Assessment Area</th>
<th>Minimum No. of Assessments</th>
<th>Specific Requirements</th>
<th>Mark Calculation Method</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Performance in practical work</td>
<td>3</td>
<td>(at least 1 in each year)</td>
<td>Total of best 3. 0 – 10 marks for each assessment</td>
<td>60</td>
</tr>
<tr>
<td>B Reporting of practical work</td>
<td>4</td>
<td>At least 1 full reports.</td>
<td>1 full reports (double weighting) + total of best 3. 0 - 10 marks for each assessment</td>
<td>40</td>
</tr>
</tbody>
</table>

The sum of these assessments will provide an overall TAS mark for each student; these marks will provide a rank order of the students in each school.

The selection of the best assessments for each Area for calculating the Area marks and the calculation of the total TAS mark will be handled by the TAS software.

Candidates are required to return all assessed work to their S7 Physics teacher after the theory examination.

WARNING: The work to be assessed by the teacher in the TAS is considered as examination material. All work must be original. Any candidate found to have copied his/her work from any source (e.g. other’s work, CD ROM) will be liable to be disqualified from the current A-level Physics Examination or the whole of the current A-level Examination.