



GCE & GCSE

Instructions for Conducting Science Practical Examinations

Guidance for Examinations Officers

GCE

1400U50-1	Biology Unit 5 (Wales)
1410U50-1	Chemistry Unit 5 (Wales)
1420U50-1	Physics Unit 5 (Wales)

GCSE

3400U30-1	Biology Unit 3 (Wales)
3410U30-1	Chemistry Unit 3 (Wales)
3420U30-1	Physics Unit 3 (Wales)
3430U70-1	Science: Double Award Unit 7 (Wales)
3440U40-1	Applied Science: Single Award Unit 4 (Wales)
3445U50-1	Applied Science: Double Award Unit 5 (Wales)
3440U30-1	Applied Science: Single Award Unit 3 Foundation - Task Based (Wales)
3440UC0-1	Applied Science: Single Award Unit 3 Higher - Task Based (Wales)
3445U40-1	Applied Science: Double Award Unit 4 Foundation - Task Based (Wales)
3445UD0-1	Applied Science: Double Award Unit 4 Higher - Task Based (Wales)

General advice across GCE/GCSE Science Practical examinations

These instructions are intended to be used in conjunction with the JCQ Instructions for Conducting Examinations (I.C.E.) and the subject specific instructions supplied.

Receipt & Storage of Question Papers

Due to the timing of these examinations it will often be necessary for materials to be issued before the receipt of entries. It is therefore important that preliminary entries are submitted by 10th October.

Upon receipt all materials, instructions and question papers should be stored in line with ICE regulations. Access should only be granted in line with any subject specific instructions (as referenced later in this document). When not in use all documents should be returned to the secure storage facility. They must not be stored in classrooms, prep. rooms or anywhere other than the centre's secure storage facility. An appropriate log for checking-out / checking-in these documents must be in place.

Accommodating candidates for the examination

Practical examinations must be held under conditions that will give all candidates the chance to carry out their tasks and to display their true levels of attainment in the subject concerned. Special care should be taken however, to ensure that display material (such as wall charts) which might be helpful to candidates must not be visible in the examination room.

All the usual requirements contained within I.C.E. regarding warning posters, the provision of clocks etc. should be followed.

Where it is intended to conduct an examination for any candidates at an address other than the centre's registered address, e.g. as part of a consortium at another registered examination centre please email science@wjec.co.uk detailing who the host centre is and the number of candidates involved, in order to arrange for the correct issuing of question papers.

Incidents during the examination

Any issues involving the late arrival of candidates, emergencies during the examination, or any incident of malpractice should be dealt with as instructed in 'ICE'.

Access Arrangements

Candidates with approved access arrangements for their written examinations may be allowed the same arrangements during these practical examinations.

Modified Papers

Modified papers should be requested in the normal way via the JCQ website.

Monitor Visits

Monitoring visits will take place on a random sample of centres to ensure the practical assessment unit is being administered correctly. We will contact each centre selected for such a visit to clarify arrangements. For GCE examinations Lab books must be made available.

GCE	1400U50-1	Biology Unit 5 (Wales)
	1410U50-1	Chemistry Unit 5 (Wales)
	1420U50-1	Physics Unit 5 (Wales)

These units comprise two tasks: Experimental Task & Practical Analysis Task

Experimental Task

Instructions to teachers/exams officers will be issued to centres in January, and may be opened on receipt. The contents should not be divulged to anybody except those concerned with the preparation of the assessment. This document should be stored securely by the exams officer when not in use by the teacher.

Teachers may open the Setting up Instructions document one week before Test 1 to ensure that the apparatus functions well enough for the candidates to complete the assessment fully. In order to do this, teachers are encouraged to attempt the task, whilst preserving the confidentiality of the assessment. This document should be stored securely by the exams officer when not in use by the teacher. The full version of the examination paper will not be available until the day of the examination

The vast majority of candidates will take Test 1. Test 2 should only be used in centres where it is not possible to accommodate all candidates on day 1. Centres requiring Test 2 (for use on day 2) must already have informed WJEC that this is the case. No candidate may undertake both tests.

Centres must schedule the test as early as is possible on the appropriate date and where more than one session is required on a single day, centres must ensure that candidates in later sessions have no opportunity to communicate with those who have already taken the test.

The examination must be invigilated by a person other than the subject teacher. The subject teacher must be present in the examination room during the experimental task to deal with any technical difficulties that may arise, including matters of safety and (where necessary) the awarding of any teacher assessed marks.

Teachers need to ensure that the teacher assessed marks are recorded on the front of each candidate's paper. Guidance on the awarding of these marks will be provided in the "Setting up Instructions" document. It is recommended that teachers complete the teacher assessed marks after candidates have completed the practical.

Examiners will require teachers' results for the test. These must be recorded clearly on the "Information from Centres" form (which will be in the "Setting up Instructions" document). This information must be sent to the examiner along with the examination papers.

Centres should ensure that each candidate has adequate working space and that the candidates are set a reasonable distance apart. Each candidate requires uninterrupted access to the allocated apparatus – one set of apparatus per candidate (except where indicated).

As soon as the assessments have taken place, the completed examination papers must be securely stored by the exams officer before they are sent to the examiner. Teachers should not be given access to the completed examination papers after the actual assessments have taken place. Candidates do not require and must not have access to this test when completing their practical analysis task.

Practical Analysis Task

The task should be completed under the same conditions as external examination papers. It must be invigilated by a person other than the A Level subject teacher. Candidates must not be given access to their experimental task when completing their practical analysis task.

After the test

The candidates' work must be stored securely by the exams officer until despatch to the examiner. Both the experimental task and practical analysis task should be sent together to the same examiner. Address labels and attendance registers will be supplied to centres in late April.

Special Consideration

Applications for special consideration should be made online via the secure website.

GCSE 3440U30-1 Applied Science: Single Award Unit 3 Foundation (Wales)
3440UC0-1 Applied Science: Single Award Unit 3 Higher (Wales)
3445U40-1 Applied Science: Double Award Unit 4 Foundation (Wales)
3445UD0-1 Applied Science: Double Award Unit 4 Higher (Wales)

Task Based Assessment

This task-based assessment will be externally assessed by WJEC. It is a tiered assessment and will take place in the second half of the autumn term (November – December). It is recommended that this should be in the final year of study.

Instructions to teachers/exams officers will be issued to centres in September and may be opened on receipt. The contents should not be divulged to anybody except those concerned with the preparation of the assessment. This document should be stored securely by the exams officer when not in use by the teacher.

The question papers for all tasks will be made available to centres at the start of November.

The appropriate number of question papers for each group will be provided to the teacher by the Exams Officer **on the scheduled date** of the assessment.

Candidates are required to submit one complete pack. Candidates cannot mix activities from Pack A and Pack B. Foundation and higher tier packs are available, but candidates cannot mix activities from foundation tier and higher tier packs. Candidates can achieve a maximum of grade C on the foundation tier pack. Candidates must not sit both foundation and higher tier packs.

The tasks should be supervised at all times by a member of staff responsible for teaching GCSE Applied Science. Centres may use additional laboratories, provided that a subject teacher is available to supervise all candidates at all times. Technical support should be available in case it is needed.

Centres will need to record candidate attendance for each session. The centres' MIS / SIMS should be used to produce an attendance register. This register must include the centre number, subject name and paper code details, the date of assessment, and list all candidate numbers, names and indicate whether candidates were present or absent from the assessment.

There is no requirement for centre staff to trial procedures before candidates conduct the task based assessment as candidates are awarded marks for planning their experiment.

Centre staff should remind candidates that they are not permitted to discuss any aspect of the assessment with anyone by any means of communication. Such actions will lead to a candidate malpractice investigation.

Monitoring visits will take place on a random sample of centres to ensure the task-based assessment unit is being administered correctly. WJEC will contact each centre selected for such a visit to clarify arrangements.

The unit will be completed in four sessions (Single Award) or five sessions (Double Award) each of 60 minutes duration.

Activity 1 will be completed in sessions 1-3 and involves planning an investigation, obtaining results, analysis and evaluation activity 2 will be completed in session 4 and involves the analysis and evaluation of given data. For Double Award Activity 3 should be completed in session 5 and involves a risk assessment. At the end of each session the question papers should be collected in and returned to the exams officer for secure storage. **Teachers should not be given access to the completed question papers after the assessments have taken place.**

Activity 1

Candidates should work individually to produce their plan. **It is permissible for candidates to work in small groups of no more than three candidates to perform the practical procedure provided their plans are sufficiently similar.** Teachers should ensure that each group has adequate working space and that the groups are set a reasonable distance apart. Each group requires uninterrupted access to the allocated apparatus. This should be carried out under a limited level of control, i.e. candidates may work with others to obtain results, but they must provide their own responses to questions set. Teacher assistance should not normally be required but may be given if an equipment failure occurs. Candidates should complete the analysis and evaluation sections of Activity 1 under a high level of control, i.e. candidates must work individually. **This section is to be completed under formal supervision with no teacher feedback or assistance.**

If candidates fail to produce a suitable plan for Activity 1, it is acceptable for them to be given a suitable plan by the teacher. Please include the teacher plans and details of the candidates who have been given these plans on the 'Information required from centres' form which is found in the Instructions to Teachers booklet

If candidates fail to obtain results for Activity 1, it is acceptable for them to be given unformatted teacher results. Please include the unformatted results and details of the candidates who have been given unformatted data on the 'Information required from centres' form.

Candidates must not have access to Activity 1 after they have started Activity 2.

Activity 2 (and Activity 3 for Double Award only)

This must be carried out under a high level of control, i.e. candidates must work individually, be set a suitable distance apart and be under supervision. **No teacher feedback or assistance is allowed.** This could be carried out in the laboratory or in an examination hall. It is permissible for Activity 2 to be supervised by a member of staff responsible for GCSE Applied Science, although centres may choose to use external invigilators. At the end of the session the question papers should be collected in and returned to the exams officer for secure storage.

After the test

Teachers should not be given access to the completed Question Papers after the assessments have taken place

Despatch of assessments checklist

Centres must check:

- that there is an assessment for every candidate marked as present on the attendance register ,
- that the candidate names and numbers on the assessments match the details on the attendance register
- that the "Information Required from Centres" sheets for all the completed tasks are included with the assessments.
- that tasks for each Applied Science qualification are packaged separately.
- that the register is enclosed and a copy made and retained within the centre

All completed assessments should be despatched to WJEC/CBAC, Unit A16/A17, Gwaelod Y Garth Road, Treforest Industrial Estate, Pontypridd, Rhondda Cynon Taf, CF37 5XF by the date stated in the instructions to teachers document and in the timetable.

Special Consideration

Applications for special considerations should be made by submitting a JCQ form 10.

GCSE	3400U30-1	Biology Unit 3 (Wales)
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	3440U40-1	Applied Science: Single Award Unit 4 (Wales)
	3445U50-1	Applied Science: Double Award Unit 5 (Wales)

Practical Assessment

The practical assessment will be externally assessed by WJEC and will take place in the window specified in the examination timetable booklet during the first half of the spring term (January – February). It is recommended that this should be in the final year of study. Candidate will have to submit the number of tasks indicated in the table below.

Marks for the Practical Assessment may be carried forward during the life of the specification.

Each task will be completed in two sessions each of 60 minutes duration - a Section A and a Section B. Section A and Section B will be two separate question papers.

Qualification	Unit Number	Section A paper	Section B paper
Biology (One task)	Unit 3 (3400U30)	3400U30-1A	3400U30-1B
		3400U30-1C	3400U30-1D
Chemistry (One task)	Unit 3 (3410U30)	3410U30-1A	3410U30-1B
		3410U30-1C	3410U30-1D
Physics (One task)	Unit 3 (3420U30)	3420U30-1A	3420U30-1B
		3420U30-1C	3420U30-1D
Science (Double Award) (Two tasks)	Unit 7 (3430U70)	3430U70-1A	3430U70-1B
		3430U70-1C	3430U70-1D
		3430U70-1E	3430U70-1F
Applied Science (Double Award) (Two tasks)	Unit 5 (3445U50)	3445U50-1A	3445U50-1B
		3445U50-1C	3445U50-1D
		3445U50-1E	3445U50-1F
Applied Science (Single Award) (One task)	Unit 4 (3440U40)	3440U40-1A	3440U40-1B
		3440U40-1C	3440U40-1D

Instructions to teachers/exams officers will be issued to centres in September and may be opened on receipt. The contents should not be divulged to anybody except those concerned with the preparation of the assessment. This document should be stored securely by the exams officer when not in use by the teacher.

Setting up instructions will be issued later in the Autumn term and must be stored securely by the Examinations Officer **until the date on which it may be opened**. Again, this document should be stored securely by the exams officer when not in use by the teacher

The question papers for all tasks will be made available to the centre in January.

The appropriate number of question papers for each group will be provided to the teacher by the Exams Officer **on the scheduled date** of the assessment.

Section A - Obtaining results

Learners will be permitted to work in small groups, of no more than three candidates. Teachers should ensure that each group has adequate working space and that the groups are set a reasonable distance apart. Each group requires uninterrupted access to the allocated apparatus – one set of apparatus per group. Section A should be carried out under a limited

level of control and should be supervised at all times by a member of staff responsible for teaching GCSE Science. Centres may use additional laboratories, provided that a subject teacher is available to supervise all groups at all times. Technical support should be available in case it is needed.

If candidates fail to obtain results for Section A, it is acceptable for them to be given unformatted teacher results. WJEC will not provide these results, they should be generated by the centre when they trial the task. Please include the unformatted results and details of the candidates who have been given unformatted data on the 'Information required from centres' form which is inside the "Setting up Instructions" document.

Section B - Analysing and evaluating results

This must be carried out under a high level of control, i.e. candidates work individually, set a suitable distance apart and under supervision. This could be carried out in the laboratory or in an examination hall. It is permissible for Section B to be supervised by a member of staff responsible for GCSE Science, although centres may choose to use external invigilators.

Candidates must have access to their Section A question paper, as they need the results obtained in the first session to answer the questions in Section B.

Centre staff should remind candidates that they are not permitted to discuss any aspect of the assessment with anyone by any means of communication. Such actions will lead to a candidate malpractice investigation.

After the test

Teachers should not be given access to the completed Question Papers after the assessments have taken place.

Despatch of assessments checklist

Centres must check:

- that there is an assessment for every candidate marked as present on the attendance register ,
- that the candidate names and numbers on the assessments match the details on the attendance register
- that the "Information Required from Centres" sheets for all the completed tasks are included with the assessments.
- that tasks for each Applied Science qualification are packaged separately.
- that the register is enclosed and a copy made and retained within the centre

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