1. Introduction

2. In this section ... Rules and feedback refresher

3. In this section ... Theory into practice

4. Support – Contact us

In this Subject Guide

**Refresh**: run through each area of the framework and the Feedback Stages summary.

**Explain**: give advice and guidance at a unit level on how the rules work in practice.

**Exemplify**: provide subject-specific examples of assignments, recording and giving feedback, and post-results support, so you can see in practice how this new framework will support you, your learners and their progression.
Geoff Harvey, Head of Vocational Assessment at Pearson, introduces the Subject Guide to Internal Assessment for Applied Science for BTEC Firsts and Nationals teaching teams.

We’re introducing a new framework to support you in delivering high quality internal assessment for all new learners registered on a BTEC First or National programme from 1 September 2014.*

Guide to BTEC Internal Assessment
The Guide to Internal Assessment for BTEC Firsts and Nationals explains more about the new framework and gives advice on how to give high quality feedback to support learner progression.

We recommend you have the Guide available to refer to when you’re using the Subject Guides.

Introducing … Subject Guides
You told us you needed more examples of what the new rules framework looks like in practice for your subject areas and sectors.

So we’ve created a series of Subject Guides which contain a:

• quick refresher on the rules framework and learner feedback stages

• Theory into Practice section containing unit-level guidance and some examples of Assessment Plans, Assignment Briefs, Observation Records and Assessment Records, showing what learner feedback you can give at each stage.

* The new assessment rules only apply to new learner registrations for courses starting from 1 September 2014. This means that all BTEC First and National learners who are already part-way through their programme on 1 September 2014 will complete their course following the assessment rules and methodology which applied when they started their BTEC course of study. See page 3 of the main Guide for more information about “top ups”.

Learners registered in 2013-14 for BTEC First Award in Principles of Applied Science who go on to register for BTEC First Award in Application of Science in 2014-15 are not considered ‘new’ learners. Therefore, the new rules do not apply.
In this section you’ll find:

**Quick refresher** on the Rules for Internal Assessment for BTEC Firsts and Nationals which you can find explained in full in the *Guide to Internal Assessment for BTEC Firsts and Nationals*.

**Feedback Stages summary** – at-a-glance guidance on what kind of feedback you can give your learners to support progression:

- during teaching and learning
- during an assessment
- post-results.
Internal assessment and feedback for BTEC Firsts and Nationals

1. Taking an assessment

Once the learner is ready to take an assessment, they must work independently.

What feedback can I give at this stage?

- Give feedback and support around knowledge, understanding and skills.

- Supervise learners if they are undertaking any assignment work in class.

Before the learner submits their evidence for assessment, your feedback must stop short of:

- providing specific assessment feedback on how the evidence meets the assessment criteria
- confirming achievement of specific assessment criteria or grades.

2. Submission of evidence and assessment

Each learner is allowed one submission of their evidence for each assessment – see also resubmission.

What feedback can I give at this stage?

- Formally record the assessment result and confirm achievement against specific assessment criteria (each criterion is assessed once only).

- Confirm the evidence submitted is authentic, the learner’s own work (they need to sign and date a declaration to this effect when they submit).

- Confirm the assessment criteria the learner has and has not achieved (explaining the reasons for the assessor’s decision).

Your feedback must stop short of:

- providing feedback or guidance on how to improve the evidence to achieve higher grades, e.g., you cannot provide a list of specific actions the learner needs to take to achieve a higher grade if they are allowed an opportunity to resubmit.

3. Resubmission of evidence

The Lead Internal Verifier may authorise one opportunity to resubmit evidence for each assignment.

When can the Lead Internal Verifier authorise a resubmission?

- If the learner has met all the initial deadlines or agreed extensions.

- The teacher or tutor judges the learner will be able to provide improved evidence without further specific guidance.

- The assessor has confirmed the evidence originally submitted was authentic, the learner’s own work.

How does a resubmission work?

- Record evidence of the Lead Internal Verifier’s decision on the assessment form.

- Set a resubmission deadline within 10 working days of the learner receiving the original assessment decision (within the same academic year, within term time).

- Stop short of giving the learner any further specific guidance or coaching on how to improve their grade.

- Your Standards Verifier will need to see evidence of the resubmission decision and that the resubmitted evidence is authentically the learner’s own work.

4. Retakes

Retakes are available to learners studying BTEC on the QCF.

- Retakes are not available to learners studying BTEC on the NQF.

When can the Lead Internal Verifier authorise a retake?

- If the learner has met all the conditions for resubmission of evidence and the Lead Internal Verifier believes it is appropriate and fair to do so.

How does a retake work?

- Set a new task or assignment targeted only at the pass criteria not achieved in the original assignment. The assessor cannot award a merit or distinction grade for a retake.

- Same procedures for submission and authentication of evidence.

- Standards Verifiers will need to see evidence of retakes in sampling.

- No further submissions or retakes are allowed.

Applies to all new learner registrations starting a new BTEC course from 1 September 2014
Feedback Stages

1. Teaching and learning

During teaching and learning, you are using your best professional judgement about the nature, quantity or level of feedback.

The assessment rules for BTEC do not cover formative feedback – only feedback during and following assessment.

Your feedback could include, for example:

- Identifying areas for learner progression, including stretch and challenge.
- Explaining clearly how BTEC assessment works and what learners need to do to achieve a Pass, Merit or Distinction.
- Setting “dry run” or “mock” tasks and scenarios to help learners understand what level they have reached and prepare for assessment.
- Feedback on how to improve knowledge, skills, understanding, behaviour, approach, grammar etc.

2. During assessment

While learners are working on an assessment, you can continue to give general feedback and support, particularly around the development of knowledge, understanding and skills.

Your feedback could include, for example:

- Guidance on how to approach the knowledge and skills requirements.
- Guidance on appropriate behaviour and approach, confirmation of deadlines etc.
- Confirmation of which criteria the assessor is targeting and clarification of what the Assignment Brief requires.

3. Following assessment

On the Assessment Record, you should give clear feedback on:

- the criteria the learner achieved (explaining the assessor’s decisions)
- the criteria not achieved (and why)

although you should not provide a list of instructions on how to get a higher grade.

Your feedback could include, for example:

- Which assessment criteria the learner has achieved and what the learner has done well.
- Which assessment criteria the learner has not achieved and what was missing.
- Information or guidance available to the learner they could have drawn on (e.g. class notes; handouts; resources in Assignment Brief etc)
- General behaviour and conduct, approach, grammar etc.
In this section

Theory into practice ...

In this section you’ll find:

- **practical advice and guidance at a unit level**, explaining how to approach giving learner feedback and support during assessment.

- **best practice examples for recording assessment decisions and giving feedback**, using filled-in examples of an:
  - Assessment Plan
  - Observation Record
  - Assignment Brief
  - Assessment Record

www.btec.co.uk/keydocuments
More guidance on ... Giving feedback

Show me how this works in practice for Applied Science

Working on an assignments
When working on assignments, learners should:

- **follow the tasks** in the Assignment Brief and **provide the evidence indicated** in the scenario and task.

- **show their knowledge and understanding of the criteria**, based on:
  - the previous **teaching and delivery** and, where relevant,
  - the **research time** that is part of the assessment task.

- **have access to materials** they have used or produced during teaching of the unit.

When preparing learners for assessment, teachers and tutors should:

- **plan assessment tasks** to allow learners to generate individual evidence.

Generating evidence
The evidence each individual learner generates needs to be authentically their own work. We strongly advise you avoid using worksheets or pages completed from a workbook where all learner work is likely to be very similar and therefore not likely to generate independent, valid and authentic evidence.

Stretch and challenge in assignment tasks
To support stretch and challenge for each individual learner, it is good practice to create assignment tasks which give all learners the opportunity to attempt the full range of Pass, Merit and Distinction criteria.

Assignment Briefs for our next generation BTEC Firsts (NQF) already require tutors and teachers to write tasks which target all the assessment criteria and we strongly recommend this as good practice for BTEC Firsts and Nationals in Applied Science on the QCF.

Group work and feedback
Practical work in Applied Science is commonly based on collecting evidence and is often completed as a group.

With a few exceptions, the criteria do not assess the collection of evidence itself. This means that the teacher can give feedback during a practical session to ensure that learners collect sufficient evidence to enable them to complete the assignment on their own.

However, where the completion of the practical itself is being assessed, each learner in the group must provide their own evidence and the teacher can’t give specific feedback about how to meet the criteria.
Giving feedback during assessment

During the assessment period, teachers and tutors can continue to give general feedback, identifying generic issues relating to the criteria or tasks, for example:

- “Please check you have covered all the substances listed in the Assignment Brief task”
- “Remember to make sure you have included enough detail in your answer”.

However, you should stop short of indicating achievement of assessment criteria while your learners are still generating their evidence and before formal assessment has taken place. For example, you should not say:

- “You’ve done everything for 2A.P1, now do the Merit work”.

Checklists

The “Evidence you must produce for this task” section on the Assignment Brief will help ensure your learners:

- understand what evidence they need to produce to complete the task
- check they have all the evidence they need before submitting their assignment for formal assessment.

Completed by the learners, these checklists need to stop short of indicating achievement of individual criteria while learners are still generating their evidence and before formal assessment. You can only record final, formal assessment on the Assessment Record Sheet.

For example:
This example is too prescriptive, directing learners to which elements of the task meet each criterion. This could encourage learners to not attempt some tasks.

<table>
<thead>
<tr>
<th>Task</th>
<th>Task Title</th>
<th>Criteria</th>
<th>Deadline</th>
<th>Done</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Table showing genetic variation</td>
<td>P1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Table showing environmental variation</td>
<td>P1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Table showing both</td>
<td>P1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Annotated picture of animal</td>
<td>P1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>Poster/storyboard/written report moth/graffiti</td>
<td>M1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.6</td>
<td>Description of how variation can be caused by genetic variation</td>
<td>D1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This example is acceptable, identifying the evidence required and allowing the learner can make a note when they complete each element.

<table>
<thead>
<tr>
<th>Evidence you must produce for this task</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tables of genetic variation, environmental variation and both</td>
<td></td>
</tr>
<tr>
<td>Annotated picture of animal.</td>
<td></td>
</tr>
<tr>
<td>Poster, story board, or written report of a case study (moth/graffiti).</td>
<td></td>
</tr>
<tr>
<td>Description of how variation can be caused by genetic mutation.</td>
<td></td>
</tr>
</tbody>
</table>
What is an Assessment Plan?

Your Assessment Plan is an essential planning and support tool to help you be confident that:

• your assignments and deadlines are planned effectively throughout the programme

• you have covered everything your learners need to learn in your BTEC programme, so each assessment criterion is assessed once during the programme.

How does that help me?

Your plan will give the BTEC programme team – and your learners - confidence that:

• you have planned enough curriculum time to cover all the units in your chosen programme

• your teaching and assessment team (teachers, assessors and internal verifiers) is in place and can plan their time effectively

• you have covered all the criteria for which your learners need to provide evidence for assessment

• you can ensure your assessments are at the right time for your learners.

What’s in an Assessment Plan?

The Assessment Plan must include:

• your assessment and internal verification team for your programme

• coverage of all the criteria against which you will be assessing your learners

• assignment hand-out and hand-in dates

• dates for:
  • submission
  • internal verification
  • opportunities for resubmission.
Who else uses the Assessment Plan?

**Your Lead Internal Verifier** needs to sign off your Assessment Plan at the start of the programme to make sure there’s an expert second pair of eyes to check you’ve covered everything and the plan is fit for purpose.

**Your Standards Verifier** will also need your Assessment Plan at the start of the standards verification process so they can agree with you the most appropriate time to select the sample.

What if my Assessment Plan changes?

We realise that plans change and you need to be flexible to meet the evolving needs and demands of your teaching and assessment team and different learner groups.

If you make significant changes in your plan, you will need to record them to make sure:

- you are still **confident you have the right resources in place** to support your programme
- your Standards Verifier can **sample your assessment decisions at the right time**.

Assessment plan: best practice examples

On the next couple of pages, we’ve created example Assessment Plans which address many of the questions you ask us about how to make the Assessment Plan useful and effective.

There are two plans:

⚠️ **“Not acceptable”**: a sample Assessment Plan including many of the problems you’ve told us you encounter, with callouts outlining a solution.

✔️ **“Acceptable”**: the same sample Assessment Plan with the problems resolved, including callouts explaining why this is more effective.
## Example Assessment Plan: not acceptable

<table>
<thead>
<tr>
<th>Programme</th>
<th>Unit No &amp; Title</th>
<th>Assignment No &amp; Title</th>
<th>Learning Aim</th>
<th>Assessment Criteria</th>
<th>Hand Out Date</th>
<th>Format feedback Date</th>
<th>Hand In Date</th>
<th>Assessment Date</th>
<th>IV Sampling Date</th>
<th>Resubmission Date</th>
<th>Resubmission IV Sampling Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIT 1: Principles of Science - EXTERNAL ASSESSMENT</td>
<td>2A: Chemical Reactivity and Bonding</td>
<td>A</td>
<td>2AP1, P2, P3, M1, M2, M3, D1, D2</td>
<td>02.03.15</td>
<td>16.03.15</td>
<td>20.03.15</td>
<td>20.03.15</td>
<td>27.04.15</td>
<td>Apr 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2B: Useful chemical products</td>
<td>B</td>
<td>2BP4, P5, M4, D3</td>
<td>22.03.15</td>
<td>29.03.15</td>
<td>03.04.15</td>
<td>03.04.15</td>
<td>27.05.15</td>
<td>May 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2C: Controlling Industrial reactions</td>
<td>C</td>
<td>2CP6, P7, M5, M8, D3</td>
<td>05.04.15</td>
<td>12.04.15</td>
<td>01.05.15</td>
<td>01.05.15</td>
<td>08.06.15</td>
<td>May 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2D: Affecting the Environment</td>
<td>D</td>
<td>2DP8, P9, M7, D5</td>
<td>03.05.15</td>
<td>22.05.15</td>
<td>29.05.15</td>
<td>29.05.15</td>
<td>30.06.15</td>
<td>Jun 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNIT 2: Chemistry and Our Earth</td>
<td>3A: Ionising radiation</td>
<td>A</td>
<td>2AP1, P2, P3, M1, M2, M3, D1, D2</td>
<td>12.12.14</td>
<td>20.12.14</td>
<td>16.01.15</td>
<td>16.01.15</td>
<td>23.02.15</td>
<td>Apr 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3B: Green electricity</td>
<td>B</td>
<td>2BP5, P6, P7, M4, M5, D4</td>
<td>30.01.15</td>
<td>01.02.15</td>
<td>13.02.15</td>
<td>13.02.15</td>
<td>09.03.15</td>
<td>Mar 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3C: The Final Frontier</td>
<td>C</td>
<td>2CP8, P9, P10, M6, M7, D5</td>
<td>20.02.15</td>
<td>06.03.15</td>
<td>13.03.15</td>
<td>21.03.15</td>
<td>06.04.15</td>
<td>Mar 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNIT 3: Energy and our Universe</td>
<td>4A: Is survival in the genes?</td>
<td>A</td>
<td>2AP1, P2, P3, M1, M2, M3, D1, D2</td>
<td>10.09.14</td>
<td>25.09.14</td>
<td>10.11.14</td>
<td>Dec 14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**You need to write the full title of a programme e.g. First Award in Principles of Applied Science**

**You no longer need to allocate a formative feedback date**

**IV sampling needs to be within 1-2 weeks of assessment**

**You need to add a column to identify Assessors and Internal Verifiers**

**Resubmission dates need to be set for a specific day and fall within 10 working days of submission. You need to set an IV date for resubmissions.**

**You need to explain the rules for resubmissions: in this case, the “10 working days” rule**
## Applied Science example Assessment Plan: Acceptable

<table>
<thead>
<tr>
<th>Programme Number &amp; Title</th>
<th>BTEC First Award in Principles of Applied Science</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNIT 4: Biology and our Environment</strong></td>
<td></td>
</tr>
<tr>
<td>4A: Is survival in the genes?</td>
<td>A</td>
</tr>
<tr>
<td><strong>UNIT 3: Energy and our Universe</strong></td>
<td></td>
</tr>
<tr>
<td>3A: Ionising radiation</td>
<td>A</td>
</tr>
<tr>
<td>3B: Green electricity</td>
<td>B</td>
</tr>
<tr>
<td>3C: The Final Frontier</td>
<td>C</td>
</tr>
<tr>
<td><strong>UNIT 1: Principles of Science - EXTERNAL ASSESSMENT</strong></td>
<td>March 2015</td>
</tr>
<tr>
<td>2A: Chemical Reactivity and Bonding</td>
<td>A</td>
</tr>
<tr>
<td>2B: Useful chemical products</td>
<td>B</td>
</tr>
<tr>
<td>2C: Controlling Industrial reactions</td>
<td>C</td>
</tr>
<tr>
<td>2D: Affecting the Environment</td>
<td>D</td>
</tr>
<tr>
<td><strong>UNIT 1: Principles of Science - EXTERNAL ASSESSMENT</strong></td>
<td>June 2015</td>
</tr>
</tbody>
</table>

Lead Internal Verifier Signature: **Alex A. Barham**

Name: **Alexandra Barham**

Date: **15.08.14**

*Lead Internal Verifier must authorise any resubmissions. The learner must have met the initial deadline (or an agreed extension deadline) and authenticated their work. The resubmission date must be within 10 working days of the learner receiving the results of assessment.*
Assignment Briefs

What are Assignment Briefs?
Assignment Briefs are designed to:

- develop a learner’s knowledge, skills and understanding in a defined area of study
- measure evidence of their learning against:
  - learning aims: what the learner needs to know, understand and do
  - assessment criteria: the grade level at which the learner can achieve each learning aim.

What are Authorised Assignment Briefs?
We have produced a range of Authorised Assignment Briefs which you can:

- use ‘off the shelf’
- edit and adapt to suit your individual programme and local needs.

Authorised Assignment Briefs are available for most core units.
You can download copies of the Authorised Assignment Briefs for your qualification from the website at www.btec.co.uk/2012.

Authorised Assignment Briefs are also available in myBTEC – learn more about myBTEC.

Learn more about Assignment Briefs in our Guide to Writing Assignments for the BTEC Teaching Team.

Assignment Brief: best practice examples

On the next couple of pages, we’ve created examples of Assignment Briefs which address many of the questions you ask us about how to write effective assignments.

There are two briefs:

- “Not acceptable”: a sample Assignment Brief including many of the problems you’ve told us you encounter, with callouts outlining a solution.
- “Acceptable”: the same sample Assignment Brief with the problems resolved, including callouts explaining why this is more effective.
Example Assignment Brief: not acceptable

Assignment title: Prevention or cure?
Assessor: Frances Letey

<table>
<thead>
<tr>
<th>Date issued</th>
<th>5th September 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand in Date</td>
<td>6th October 2014</td>
</tr>
<tr>
<td>Resubmission Hand in Date</td>
<td>4th December 2014</td>
</tr>
<tr>
<td>Retake Hand in Date</td>
<td>If you are not successful you will be able to retake this assignment in May.</td>
</tr>
<tr>
<td>Duration (approx)</td>
<td>6 hours</td>
</tr>
</tbody>
</table>

Qualification covered: BTEC First in Applied Science
Units covered: Unit 4: Biology and our Environment
Learning aims covered: Learning aim C: Explore the factors that affect human health

You’ve set a date right at the start of term. Have you allowed enough time for teaching and learning before assessment?

This date is too late after hand in. Either the resubmission date is more than 10 days after the learners receive their results, or the gap between hand in and learners receiving results is too long.

Retakes are not available on the NQF. Even for QCF, any retake requires a new assignment - to pass only - and must be signed off by the Lead IV.

Make sure you use the correct title of the qualification and units.

Scenario

To gain a Pass, use the leaflet to describe factors that affect health, one way of treating disease and one way of preventing disease. Add a section about how lifestyle (drinking, smoking, overreacting, etc) can affect human health. If you want a merit, produce a second leaflet for task 2. You only need to do task 3 if you are targeted a distinction.

This is not a vocational scenario and it asks for extra tasks to meet the higher criteria.

Task 1 [pass]

You should check with your teacher when finishing each section to ensure you have your work is in line with your target grade.

After seeing the powerpoint ‘The Healthy Nation’ in class on 5th September 2014 use your notes to produce a poster for the medical centre. Your poster needs to show:

- How lifestyle choices (smoking, diet, exercise and recreational drug use) can have a positive or a negative effect on health.

Despite making healthy choices, people still become ill. This can be due to social and inherited factors.

- In your leaflet list examples of each of these factors and an effect they may have on health. Explain, using an example, e.g. sickle cell anaemia, Huntington’s chorea, cystic fibrosis, how pedigree analysis can be used to predict the chances of the disease being inherited by a child.

Biological factors (pathogens) such as bacteria and viruses also affect health.

- Using ONE bacterial disease and ONE viral disease describe on your poster the impact each has on human health.

In case you do not achieve the level 2 pass, make sure you have listed social and inherited factors before producing a leaflet explaining and using a punnett square to show how one of the following affects health, Sickle cell anaemia, Huntington’s chorea, cystic fibrosis...
**Example Assignment Brief: not acceptable**

| Task 2 [merit] | Infectious disease can be a problem for people with young children.  
|                | • Write a leaflet to identify some personal and food hygiene measures that parents can adopt to help prevent the spread of infectious diseases. Describe how vaccination and antibiotics can be used in either the prevention or the treatment of common diseases.  
|                | Some of the parents have heard that bacteria are becoming resistant to antibiotics and they want to know what they can do about this.  
|                | • Write a leaflet explaining how bacteria become resistant, why it is important to take antibiotics only when necessary, complete the course and what the implications are for the future treatment of diseases if we continue to abuse antibiotics. |

| Task 3 [distinction] | Distinction learners only.  
|                     | Write a report evaluating vaccination programmes for the treatment of childhood illnesses. You must also evaluate the benefits and drawbacks of using of antibiotics to treat diseases and the advantages and disadvantages of using pedigree analysis when parents are considering having a child when there is an inherited condition in their own families.  

| Evidence you must produce for this task | Leaflet [all]  
|                                         | A written report [Distinction students only]  

**All learners should have the opportunity to provide evidence across the grades.**

**Criteria covered by this task:**

<table>
<thead>
<tr>
<th>To achieve the criteria you must show that you are able to:</th>
<th>Unit</th>
<th>Criterion reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluate the use of antibiotics, pedigree analysis and vaccination programmes in the treatment and prevention of childhood illnesses.</td>
<td>4</td>
<td>2C.D4</td>
</tr>
<tr>
<td>Explain how bacteria can become resistant to antibiotics.</td>
<td>4</td>
<td>2C.M5</td>
</tr>
<tr>
<td>Explain the use of pedigree analysis.</td>
<td>4</td>
<td>2C.M6</td>
</tr>
<tr>
<td>Discuss the advantages and disadvantages of vaccination programmes.</td>
<td>4</td>
<td>2C.M7</td>
</tr>
<tr>
<td>Describe how pathogens affect human health.</td>
<td>4</td>
<td>2C.P7</td>
</tr>
<tr>
<td>Describe two different treatment regimes: one used to prevent a disease and one used to treat a disease.</td>
<td>4</td>
<td>2C.P8</td>
</tr>
<tr>
<td>Describe how lifestyle choices can affect human health.</td>
<td>4</td>
<td>2C.P9</td>
</tr>
</tbody>
</table>

**Sources of information:**

- **Your Teacher** – remember to keep checking that your work during your assessment to make sure the work you have done is meeting the assessment criteria.
- These activities are inappropriate because they provide extra feedback and guidance to learner on how to produce a higher grade.
- **Class powerpoint from 5th September**
- **Class workbook** – when you have completed your workbook using the sources provided in class you will have all the information that you need for the assessment.

**Textbooks**


**Websites**

http://www.bbc.co.uk/schools/gcsebitesize/science/

If you have not achieved the Level 2 criteria, your work will be assessed to determine if the following Level 1 criteria have been met.

<table>
<thead>
<tr>
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<th>Criterion reference</th>
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<td>List the different biological, social and inherited factors that affect human health.</td>
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</tr>
<tr>
<td>List some benefits of exercise on health.</td>
<td>4</td>
<td>1C.9</td>
</tr>
</tbody>
</table>
Example Assignment Brief: acceptable

<table>
<thead>
<tr>
<th>Assignment title</th>
<th>Prevention or cure?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessor</td>
<td>Frances Letley</td>
</tr>
</tbody>
</table>

| Date issued      | 9th October 2014    |
| Hand in Date     | 21st November 2014  |
| Duration (approx) | This assessment should take you about 6 hours |

<table>
<thead>
<tr>
<th>Qualification covered</th>
<th>BTEC First Award in Principles of Applied Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units covered</td>
<td>Unit 4: Biology and our Environment</td>
</tr>
<tr>
<td>Learning aims covered</td>
<td>Learning aim C: Explore the factors that affect human health</td>
</tr>
</tbody>
</table>

You are a Practice Nurse in a busy medical centre. Following government health campaigns, the medical centre doctors want you to provide an information leaflet that will be handed out at ‘New parent’ classes running at the centre.

The leaflet should describe how lifestyle choices are important to health. It needs to describe the biological, social and genetic factors that can affect health and explain how they can be prevented and treated (use of antibiotics, vaccination and pedigree analysis).

The centre is keen that the leaflet should evaluate potential treatments and preventative measures and present a balanced view of them to allow the parents to make their own informed decisions.

---

Task 1

- Your information leaflet needs to describe lifestyle choices (smoking, diet, exercise and recreational drug use) and how they can have a positive or a negative effect on health.

Despite making healthy choices, people still become ill. This can be due to social and inherited factors.

- In your leaflet list examples of each of these factors and an effect they may have on health. Explain, using an example, e.g. sickle cell anaemia, Huntingdon’s chorea, cystic fibrosis, how pedigree analysis can be used to predict the chances of the disease being inherited by a child.

Biological factors (pathogens) such as bacteria and viruses also affect health.

- Using ONE bacterial disease and ONE viral disease describe the impact each has on human health.

Infectious disease can be a problem for people with young children.

- Use the leaflet to identify some personal and food hygiene measures that parents can adopt to help prevent the spread of infectious diseases. Describe how vaccination and antibiotics can be used in either the prevention or the treatment of common diseases.

Some of the parents have heard that bacteria are becoming resistant to antibiotics and they want to know what they can do about this.

- Add a section to your leaflet explaining how bacteria become resistant, why it is important to take antibiotics only when necessary, complete the course and what the implications are for the future treatment of diseases if we continue to abuse antibiotics.

Task is holistic covering all criteria and not split against each separate level of criteria.

Issue date is 5 weeks into the autumn term, so has given learners a chance to understand the demands of the assignment and the evidence needed.

Task allows evidence to be produced for the level 1 criterion without specifically targeting it. The factors mentioned in the assessment guidance have been identified.
Example Assignment Brief: acceptable

1. Use a section in your leaflet to discuss the advantages and disadvantages of a vaccination programme like MMR and evaluate vaccination programmes for the treatment of childhood illnesses. Offer your views about the vaccination programme when compared with the risks of not being vaccinated and getting the diseases.
2. You must also evaluate the benefits and drawbacks of using antibiotics to treat diseases.
   Evaluate the advantages and disadvantages of using pedigree analysis when parents are considering having a child when there is an inherited condition in their own families.

Evidence you must produce for this task:
- A leaflet describing lifestyle choices and biological, social and genetic factors that affect health and how they can be treated and prevented.
- A section in the leaflet explaining and evaluating the use of treatment methods.

Criteria covered by this task:

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<tr>
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<th>Criterion reference</th>
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</thead>
<tbody>
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<td>Evaluate the use of antibiotics, pedigree analysis and vaccination programmes in the treatment and prevention of childhood illnesses.</td>
<td>4</td>
<td>2C.D4</td>
</tr>
<tr>
<td>Explain how bacteria can become resistant to antibiotics.</td>
<td>4</td>
<td>2C.M5</td>
</tr>
<tr>
<td>Explain the use of pedigree analysis.</td>
<td>4</td>
<td>2C.M6</td>
</tr>
<tr>
<td>Discuss the advantages and disadvantages of vaccination programmes.</td>
<td>4</td>
<td>2C.M7</td>
</tr>
<tr>
<td>Describe how pathogens affect human health.</td>
<td>4</td>
<td>2C.P7</td>
</tr>
<tr>
<td>Describe two different treatment regimes: one used to prevent a disease and one used to treat a disease.</td>
<td>4</td>
<td>2C.P8</td>
</tr>
<tr>
<td>Describe how lifestyle choices can affect human health.</td>
<td>4</td>
<td>2C.P9</td>
</tr>
</tbody>
</table>

Textbooks

Websites
http://www.bbc.co.uk/schools/gcsebitesize/science/

Sources of information do not include feedback or guidance on how to achieve the higher grade.

**Note to Assessors:**
We’re committed to ensuring that teachers and students have a choice of resources to support their teaching and study. We would encourage you to use relevant resources for your local area such as local employers, newspapers and council websites. A range of publications, from a number of publishers, is available to support delivery and training for all Edexcel and BTEC qualifications, so students and teachers can select those that best suit their needs. Above are just some examples of textbooks. Further useful resources may be found at: www.edexcel.com/resources

If you have not achieved the Level 2 criteria, your work will be assessed to determine if the following Level 1 criteria have been met.

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<td>List some benefits of exercise on health.</td>
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What is an Observation Record?

An assessor uses an Observation Record to provide a formal record of their observation of learner performance, for example:

- during presentations,
- practical activities.

What is a Witness Statement?

A Witness Statement is used by someone who isn’t the assessor (for example, the teacher or tutor) to provide a written record of learner performance.

Are Observation Records and Witness Statements the same as an Assessment Record?

No – Observation Records and Witness Statements are sources of evidence which should be included when the learner submits their evidence for assessment.

They do not in themselves confer an assessment decision or allocate a final grade.

Observation Record – best practice examples

On the next couple of pages, we’ve created examples which address many of the questions you ask us about how to use Observation Records.

This example looks at how a tutor has given feedback to a learner using an Observation Record on a BTEC First Award in Applied Science.

The feedback relates to:

Unit 2 Chemistry and Our Earth
Learning Aim A.

There are two example records:

- “Not acceptable”: a sample Observation Record including many of the problems you’ve told us you encounter, with callouts outlining a solution.

- “Acceptable”: the same Observation Record with the problems resolved, including callouts explaining why this is more effective.
### Applied Science example Observation Record: Not acceptable

<table>
<thead>
<tr>
<th>Learner name:</th>
<th>Ollie Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification:</td>
<td>BTEC First Award in Applied Science</td>
</tr>
<tr>
<td>Unit number &amp; title:</td>
<td>Unit 2 Chemistry and Our Earth</td>
</tr>
</tbody>
</table>

#### Description of activity undertaken

All learners carried out a practical on displacement reactions. They followed written instructions in a worksheet in the assignment brief. Ollie was present on the day of the practical and participated well.

- **Make sure you use the correct title of the qualification.**
- **You need to specify if learners worked individually or in groups.**
- **This doesn’t provide a clear enough indication about the contribution the learner made to the practical work to allow an Assessor / Verifier to make a judgement about the quality and sufficiency of the learner’s performance.**

#### Assessment criteria targeted

2A.P1 and 2A.M1 for relevant learners.

- **This suggests that not all learners are being given the opportunity to attempt all the assessment criteria.**

#### How the activity covers the requirements of the assessment criteria (this does not confirm achievement of assessment criteria or confer an assessment decision)

They carried out the practical properly and safely and got the results they needed to complete the tables they had been given to achieve 2A.P1.

- **This suggests you will give the completed table as evidence, rather than the description required to achieve the targeted criteria. This practical alone would not allow the targeted criteria to be achieved.**
- **You cannot indicate the achievement of criteria at this stage.**

<table>
<thead>
<tr>
<th>Learner name:</th>
<th>Ollie Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learner signature:</td>
<td>Ollie Fit</td>
</tr>
<tr>
<td>Date:</td>
<td>25th October 2014</td>
</tr>
<tr>
<td>Assessor name:</td>
<td>Mrs Scott</td>
</tr>
<tr>
<td>Assessor signature:</td>
<td>A. Scott</td>
</tr>
<tr>
<td>Date:</td>
<td>25th October 2014</td>
</tr>
</tbody>
</table>
Example Observation Record: acceptable

<table>
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<tr>
<th>Learner name:</th>
<th>Ollie Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification:</td>
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</tr>
<tr>
<td>Unit number &amp; title:</td>
<td>Unit 2 Chemistry and Our Earth</td>
</tr>
</tbody>
</table>

Description of activity undertaken

Displacement reactions of group 7 elements.

On the 23rd October a class practical took place on displacement reactions. Learners observed a demonstration of how to carry out the activity safely.

The class then worked in groups of 2/3 pupils following an investigation sheet – Group 7 halogen elements reacting with halide salts.

I observed Ollie and partner (Jamie) carry out the practical work safely and accurately. They split the practical tasks fairly between them. Ollie recorded the results from the parts of the investigation she carried out, along with the results of the parts carried out by her partner. They cooperated well, cleared away the equipment and disposed of the chemicals safely as instructed.

Assessment criteria targeted

Unit 2A Practical work to support 2A.P1 and 2A.M1. Describe the properties and trends of chemicals in group 7.

How the activity covers the requirements of the assessment criteria (this does not confirm achievement of assessment criteria or confer an assessment decision)

The practical activity allowed learners to carry out an investigation as part of Learning aim A. Unit content A.1c requires learners to cover displacement activities for group 7.

The results obtained, along with a demonstration of group 1 elements and a practical on their compounds, carried out in a previous lesson, will allow Ollie to write a report describing the properties and trends of elements in group 7 (and group 1).

Learner name: Ollie Fit

Learner signature: Ollie Fit Date: 25th October 2014

Assessor name: Mrs Scott

Assessor signature: A. Scott Date: 25th October 2014
What is an Assessment Record?
The Assessment Record is the only place where the assessor formally records their assessment decisions against individual assessment criteria.

The assessor should:

• give feedback on the achievement of criteria to support learner progression

• avoid giving direct, specific instructions on how the learner can improve the evidence to achieve a higher grade (should the Lead Internal Verifier authorise a resubmission).

Authenticating learner work

The Assessment Record also includes a declaration of authenticity for the assessor to sign, to ensure everyone is confident the evidence was genuinely the learner’s own work.

It’s important to keep the Assessment Record secure, although it should also remain accessible to the learner.

Assessment record: best practice examples

On the next couple of pages, we’ve created example Assessment Records which address many of the questions you ask us about how to make the Assessment Record effective and be confident you are giving full and constructive feedback that supports learner progression.

There are two plans:

“Not acceptable”: a sample Assessment Record including many of the problems you’ve told us you encounter, with callouts outlining a solution.

“Acceptable”: the same sample Assessment Record with the problems resolved, including callouts explaining why this is more effective.
Applied Science example Assessment Record: not acceptable

<table>
<thead>
<tr>
<th>Programme</th>
<th>NQF First Award Principles of Applied Science</th>
<th>Learner name</th>
<th>Fred Hindle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment title</td>
<td>Explore the Factors that affect human health</td>
<td>Assessor name</td>
<td>F. Letley</td>
</tr>
<tr>
<td>Unit no. &amp; title</td>
<td>Unit 4 Biology and our Environment</td>
<td>Target learning aims</td>
<td>Learning Aim C</td>
</tr>
<tr>
<td>Issue date</td>
<td>05.09.14</td>
<td>Submission deadline</td>
<td>9th February 2014</td>
</tr>
<tr>
<td>First submission / resubmission*</td>
<td>First Submission</td>
<td>Date submitted</td>
<td>11th February 2014</td>
</tr>
<tr>
<td>Resubmission authorisation by Lead Internal Verifier*</td>
<td>K. Beckett</td>
<td>Date</td>
<td>6th March 2014</td>
</tr>
</tbody>
</table>

* All resubmissions must be authorised by the Lead Internal Verifier. Only one resubmission is possible per assignment, providing:
  - The learner has met initial deadlines set in the assignment, or has met an agreed deadline extension.
  - The tutor considers that the learner will be able to provide improved evidence without further guidance.
  - Evidence submitted for assessment has been authenticated and accompanied by a signed and dated declaration of authenticity by the learner.

** Any resubmission evidence must be submitted within 10 working days of receipt of results of assessment.

<table>
<thead>
<tr>
<th>Target criteria</th>
<th>Criteria achieved? (Yes / No)</th>
<th>Assessment comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2C.P7</td>
<td>Yes</td>
<td>Well done Fred, you have described how pathogens (bacteria, viruses and fungi) affect health on pages 1-3 of your evidence. You have also described the effects of social and inherited factors (cystic fibrosis and exposure to UV rays) on health.</td>
</tr>
<tr>
<td>2C.M6</td>
<td>Yes</td>
<td>You have used a punnett square to explain pedigree analysis and how an apparently ‘normal’ couple can have a baby with CF and what might happen if two ‘carriers’ had a baby.</td>
</tr>
<tr>
<td>2C.P8/2C.M5</td>
<td>Yes</td>
<td>You have identified and described vaccination and use of antibiotics to treat and prevent disease and have been able explain how bacteria can become resistant to antibiotics. Well done!</td>
</tr>
<tr>
<td>2C.M7</td>
<td>No</td>
<td>A good start- you have listed the advantages and disadvantages of vaccination for MMR. You need to consider why some parents decide to have their children vaccinated, and why some are against the procedure. Include information about what may happen to the number of cases of the diseases if children are not vaccinated.</td>
</tr>
<tr>
<td>2C.P9</td>
<td>Yes</td>
<td>Lifestyle factors, smoking, recreational drug use, diet and exercise and their positive and negative effects on health have been thoroughly described.</td>
</tr>
<tr>
<td>2C.D4</td>
<td>No</td>
<td>You have not evaluated pedigree analysis, use of antibiotics and vaccination.</td>
</tr>
</tbody>
</table>

General comments:

Well done, this is a very good first assignment. Ensure you are using punctuation correctly and checking spellings. In your resubmission, make sure you focus on command words and complete your evaluations to reach the higher criteria.

Assessor declaration:

I certify that the evidence submitted for this assignment is the learner’s own. The learner has clearly referenced any sources used in the work. I understand that false declaration is a form of malpractice.

Assessor signature: F. Letley
Date: 25.09.14

Learner comments: I am pleased with my grade.
Applied Science example Assessment Record: acceptable

<table>
<thead>
<tr>
<th>Programme</th>
<th>NQF First Award Principles of Applied Science</th>
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<tr>
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<td>Well done Fred, you have described how pathogens (bacteria, viruses and fungi) affect health on pages 1-3 of your evidence. You have also described the effects of social and inherited factors (cystic fibrosis and exposure to UV rays) on health.</td>
</tr>
<tr>
<td>2C.M6</td>
<td>Yes</td>
<td>You have used a punnett square to explain pedigree analysis and how an apparently 'normal' couple can have a baby with CF and what might happen if two 'carriers' had a baby.</td>
</tr>
<tr>
<td>2C.P8/2C.M5</td>
<td>Yes</td>
<td>You have identified and described vaccination and the use of antibiotics to treat and prevent disease. You have used a storyboard to explain how bacteria can become resistant to antibiotics. Well done!</td>
</tr>
<tr>
<td>2C.M7</td>
<td>No</td>
<td>A good start— you have listed the advantages and disadvantages of vaccination for MMR, however, there is not enough detail to meet the command word discuss.</td>
</tr>
<tr>
<td>2C.P9</td>
<td>Yes</td>
<td>Lifestyle factors, smoking, recreational drug use, diet and exercise and their positive and negative effects on health have been thoroughly described.</td>
</tr>
<tr>
<td>2C.D4</td>
<td>No</td>
<td>You have not evaluated pedigree analysis, use of antibiotics and vaccination.</td>
</tr>
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General comments

Well done, this is a very good first assignment. For future assignments ensure you are using punctuation correctly and checking spellings. Please try and use a variety of resources (not just your notes and the text book) and make sure you reference the resources you have used in the future.

Assessor declaration

I certify that the evidence submitted for this assignment is the learner's own. The learner has clearly referenced any sources used in the work. I understand that false declaration is a form of malpractice.

Assessor signature | F. Letley | Date | 06.03.14 |
Learner comments

I am pleased with my grade.

Learner signature | Fred Hindle | Date | 06.03.14 |

This is acceptable feedback because it quotes directly from the assessment criteria. The assessor is not providing specific guidance on how to achieve the criterion and is allowing the learner to work independently.

This feedback is acceptable and is not related to achievement of criteria. It's good practice to provide learners with general feedback that will help improve the quality of work for future assessments.
You can also contact us directly if you need a more in-depth discussion about your individual needs.

UK centres

If you are in the UK, you can talk to your:

- **Subject Advisor** - for subject-specific advice and guidance
- **Curriculum Development Manager or Curriculum Support Consultant** - for general advice and guidance on curriculum and qualifications
- **Regional Quality Manager** - for advice and guidance on BTEC quality assurance.

Visit [www.btec.co.uk/support](http://www.btec.co.uk/support) for full contact details.

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Middle East – China – India

The International Quality Managers will be able to give quality assurance advice to customers in:

- **Middle East**: Mohamed Kamel  
  mohamed.kamel@pearson.com

- **Hong Kong or China**: Florence Chan  
  florence.chan@pearson.com

- **Indian sub continent**: Saurabh Saxena  
  saurabh.saxena@pearson.com

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Continental Europe – South Africa  
South Asia – Latin America  
Australasia

The International Quality and Assessment Advisors will be able to help customers in:

- **Europe**: Nicola Mortimer-Stokes
- **South Africa**: Colin Beeke
- **South Asia**: Stephen Moore
- **Latin America & Australasia**: Julie Hancock

Please contact Elizabeth Crofts, International Vocational Quality and Risk Manager ([elizabeth.crofts@pearson.com](mailto:elizabeth.crofts@pearson.com)) in the first instance. Elizabeth will put you in touch with the relevant International Quality and Assessment Advisor.

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Where can I find more information?

**BTEC Guides**

If you need any more help or information, you can refer to the **BTEC Centre Guide to Assessment: Entry Level to Level 3** at [www.btec.co.uk/keydocuments](http://www.btec.co.uk/keydocuments).

**Your questions answered**

Our BTEC Quality Team has shared their most frequently asked questions around BTEC assessment. Go to our Knowledge Base service to ask your question – or talk to an expert in our Teaching Services team via [www.edexcel.com/contactus](http://www.edexcel.com/contactus).