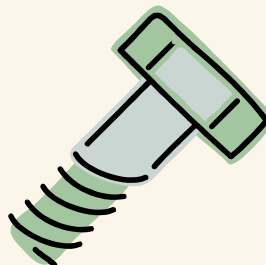
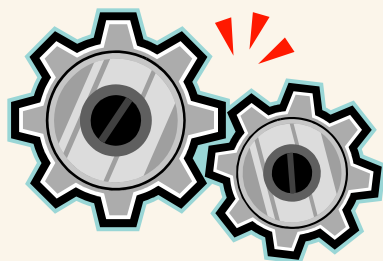


Subject Guide to Internal Assessment for BTEC Firsts and Nationals

Engineering and Construction



Version 1: June 2014

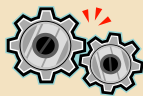
www.btec.co.uk/keydocuments

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 Engineering* for BTEC Firsts and Nationals teaching teams.



We're introducing a new framework to support you in delivering high quality internal assessment for all learners registered on a BTEC Firsts or Nationals 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.

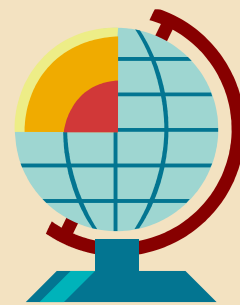
We recommend you have the *Guide* available to refer to when you're using the Subject Guides.

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.



For centres outside the UK

Some of the examples in this *Subject Guide* relate to next generation BTEC Firsts (NQF) which are not available outside the UK. However, the principles we've outlined here do represent best practice, and we recommend that you follow them.

***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".**

In this section

Refresher



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.
- 1 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 authentically 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).
- 1 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 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 authentically 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).
 - 1 Stop short of giving the learner any further specific guidance or coaching on how to improve their grade.
 - 1 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.
 - 1 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.

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)

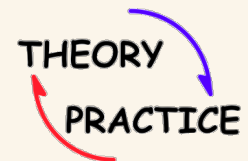
although you should not provide a list of instructions on how to get a higher grade.

Your feedback could include, for example:

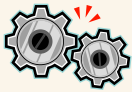
- ✓ Which **assessment criteria the learner has achieved** and what the learner has done well.
- ✓ Which **assessment criteria the learner has not achieved** and what was missing.
- ✓ Information or **guidance available to the learner** they could have drawn on (e.g. class notes; handouts; resources 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

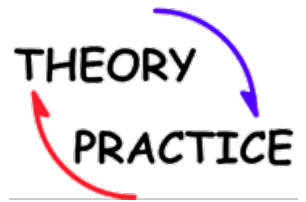


Assignment Brief



Assessment Record

Theory into practice



Assessment Plan

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**.

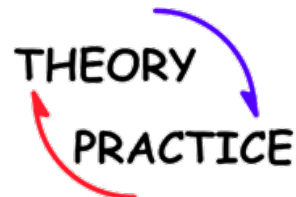
What's in an Assessment Plan?

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.



Theory into practice



Assessment Plan

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 your learners.



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 identifying the issues.
- ✓ **"Acceptable"**: the same sample Assessment Plan with the problems resolved, including callouts explaining why this is more effective.



Example Assessment Plan: Not Acceptable

The full title of the programme is required
e.g. First Award, Certificate, etc.

Programme Number & Title		BTEC Engineering									
Unit No & Title	Assignment No & Title	Learning Aim	Assessment Criteria	Hand Out Date	Formative Feedback Date	Hand In Date	Summative Assessment Date	IV Sampling Date	Resubmission Date*		
Year 1											
Unit 1: The Engineering World	External Assessment	ABC	n/a	n/a	n/a	n/a	n/a	n/a	May 2014		
Unit 2: Investigating an Engineering Product	Assignment 1: Product Performance	A	1A.1, 2A.P1, 2A.M1	21 Apr 14	8 May 14	12 May 14	15 May 14	10 June 14	June 2014		
Unit 2: Investigating an Engineering Product	Assignment 2: Materials and Components	A, B, C	1B.2, 2B.P2, 2B.M2, 2B.D1	21 Oct 14	07 Nov 14	22 Nov 14	22 Nov 14	18 Dec 14	May 2015		
Unit 2: Investigating an Engineering Product	Assignment 3: Manufacturing Processes	C	1C.3, 2C.P3, 2C.M3, 2C.D2	7 Oct 14	11 Nov 14	22 Nov 14	22 Nov 14	18 Dec 14	May 2015	IV date is far too late after assessment.	
Unit 2: Investigating an Engineering Product	Assignment 4: Quality	C	All criteria	2 Dec 14	6 Jan 15	17 Jan 15	17 Jan 15	20 Feb 15	May 2015		
Year 2											
Unit 3 Health and Safety in Engineering	and Responsibilities Assignment 2: Preparing for and Carrying Out an Engineering Activity	B	1A.1, 1A.2, 2A.P1, 2A.P2, 2A.M1, 2A.M2, 2A.D1	27 Jan 15	17 Feb 15	10 Mar 15	10 Mar 15	17 Mar 15	May 2015		
Unit 3: Health and Safety in Engineering	Assignment 2: Preparing for and Carrying Out an Engineering Activity	B	1B.3, 1B.4, 1B.5, 2B.P3, 2B.P4, 2B.P5, 2B.M3, 2B.D2	24 Mar 15	14 Apr 15	28 Apr 15	28 Apr 15	12 May 15	May 2015	Resubmission dates too vague and not within 10 working days. No IV date for resubmissions.	
Unit 5: Engineering Materials	Assignment 1: Properties of Engineering Materials and their Applications	A	1A.1, 1A.2, 2A.P1, 2A.P2, 2A.M1, 2A.D1	27 Jan 15	17 Feb 15	10 Mar 15	10 Mar 15	17 Mar 15	May 2015		
Unit 5: Engineering Materials	Assignment 2: Identifying Engineering Materials	B	1B.3, 2B.P3, 2B.M2, 2B.D2, 1B.4, 2B.P4, 2B.M3	24 Mar 15	14 Apr 15	28 Apr 15	28 Apr 15	12 May 15	May 2015		
Lead Internal Verifier Signature		John Musson		Name		John Musson		Date		15-Sep-13	

Assessors and IVs are not identified.

You cannot target criteria more than once.

* Lead Internal Verifier must authorise any resubmissions

10 working days rule is not identified for resubmissions.

Example Assessment Plan: Acceptable

Programme Number & Title		BTEC First Award in Engineering									
Unit No & Title	Assignment No & Title	Learning Aim	Assessment Criteria	Hand Out Date	Hand In Date	Assessment Date	IV Sampling Date	Resubmission Date*	Resubmission IV Sampling Date	Assessor Name	IV Name
Year 1											
Unit 1: The Engineering World	External Assessment	ABC	n/a	n/a	n/a	April 2014	n/a	n/a	n/a	D Tennant	J Musson
Unit 2: Investigating an Engineering Product	Assignment 1: Product Performance	A	1A.1, 2A.P1, 2A.M1	21 Apr 14	23 May 14	23 May 14	30 May 14	9 Jun 14	16 Jun 14	D Tennant	J Musson
Unit 2: Investigating an Engineering Product	Assignment 2: Materials and Components	A, B, C	1B.2, 2B.P2, 2B.M2, 2B.D1	21 Apr 14	23 May 14	23 May 14	30 May 14	9 Jun 14	16 Jun 14	D Tennant	J Musson
Unit 2: Investigating an Engineering Product	Assignment 3: Manufacturing Processes	C	1C.3, 2C.P3, 2C.M3, 2C.D2	7 Oct 14	21 Nov 14	21 Nov 14	28 Nov 14	5 Dec 14	12 Dec 14	J Musson	D Tennant
Unit 2: Investigating an Engineering Product	Assignment 4: Quality	B	1B.4, 1B.5, 2BP.4, 2BP.5, 2BM.3, 2BM.4, 2BD.2	2 Dec 14	15 Jan 15	16 Jan 15	23 Jan 15	6 Feb 15	13 Feb 15	J Musson	D Tennant
Year 2											
Unit 3: Health and Safety in Engineering	Assignment 1: Accident/Emergency Procedures and Workplace Roles and Responsibilities	A	1A.1, 1A.2, 2A.P1, 2A.P2, 2A.M1, 2A.M2, 2A.D	27 Jan 15	10 Mar 15	10 Mar 15	17 Mar 15	31 Mar 15	7 Apr 15	D Tennant	J Musson
Unit 3: Health and Safety in Engineering	Assignment 2: Preparing for and Carrying Out an Engineering Activity	B	1B.3, 1B.4, 1B.5, 2BP.3, 2BP.4, 2BP.5, 2BM.3, 2BD.2	24 Mar 15	28 Apr 15	28 Apr 15	5 May 15	19 May 15	26 May 15	D Tennant	J Musson
Unit 5: Engineering Materials	Assignment 1: Properties of Engineering Materials and their Applications	A	1A.1, 1A.2, 2A.P1, 2A.P2, 2A.M1, 2A.D1	27 Jan 15	10 Mar 15	10 Mar 15	17 Mar 15	31 Mar 15	7 Apr 15	D Tennant	J Musson
Unit 5: Engineering Materials	Assignment 2: Identifying Engineering Materials	B	1B.3, 2B.P3, 2B.M2, 2B.D2, 1B.4, 2B.P.4, 2B.M3	24 Mar 15	28 Apr 15	28 Apr 15	5 May 15	19 May 15	26 May 15	D Tennant	J Musson
Lead Internal Verifier Signature				<i>John Musson</i>				Name		John Musson	
Lead Internal Verifier Signature				<i>John Musson</i>				Date		15-Sep-13	

* 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.

Correct programme title.

Resubmission date is now clear and is within 10 days, assuming learners receive results straight after IV.

Assessors and IVs are identified.

IV date given for resubmissions.

All criteria targeted just once.

Rules identified for resubmissions.

Assignment Briefs

What are Assignment Briefs?

Assignments 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 learners 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:

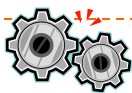
- use '**off the shelf**'
- **edit** and **adapt** to suit your individual programme and local needs.

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 identifying the issues.
- ✓ **"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	2: Materials Used in an Engineered Product
Assessor	Dianne Tennant
Date issued	Sept 5 th 2014
Hand in Date	October 6 th 2014
Resubmission Hand in Date	December 4 th 2014
Retake Hand in Date	If you are not successful you will be able to retake this assignment in May.
Duration (approx)	6 hours
Qualification suite covered	BTEC Level 1/Level 2 First Award in Engineering
Units covered	Unit 2: Investigating an Engineered Product
Learning aims covered	Learning aim B: Understand the selection of specific materials for use in the components that make up an engineered product
Scenario	<p>The manager of the local engineering company you are working for has asked you to develop your investigation of the engineered product you looked at in Assignment 1 (Technical Specification Criteria for an Engineered Product) by disassembling it. He has asked you to discuss the materials used in its component parts, describing properties and qualities, environmental impact and possible alternative materials.</p> <p>The product you select must have a minimum of two components.</p> <p><i>[Or]</i></p> <p>The product you have been provided with has a minimum of two different components.</p> <p><i>[delete as appropriate]</i></p>
Task 1 [pass]	<p>Selection, use and impact of different materials in an engineered product</p> <p>You should check with your teacher when finishing each section to ensure you have your work in line with your target grade. If you are a Pass student just do Task 1. A Merit student should attempt tasks 1 and 2. A Distinction student should attempt all three tasks. If you achieve below your target grade you will be required to attend Mrs Parton's after-school catch-up sessions until you have completed work which matches your target grade.</p> <p>Disassemble the engineered product you have been given and then produce a written report that contains the following:</p> <ul style="list-style-type: none"> • A brief description of two components in the product • The name, properties and qualities of the materials the two components are made from • Environmental impact details for the materials used, including extraction/processing and disposal after their useful lifespan
Task 2 [merit]	

This date is right at the start of term. Has enough time been allowed for teaching and learning prior to 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.

Specific assessment feedback cannot be given until work is submitted for assessment.

NQF assignment briefs should not use a 'task per criterion' approach.

All learners should have the opportunity to provide evidence across all the grades. Learners may have one resubmission only.

Engineering example Assignment Brief: Not Acceptable
page 2

Task 3 [distinction]	<ul style="list-style-type: none"> Alternative materials that could be used 	
Evidence you must produce for this task	<p>Written report (one side of A3) You may find it helpful to take photographs of the two components which you can then label and annotate/refer to in your report. Table in the leaflet [merit students only] Leaflet summary [Distinction students only]</p>	
<div style="border: 1px solid orange; padding: 5px; display: inline-block;"> All learners should have the opportunity to provide evidence across the grades. </div>		
Criteria covered by this task:		
To achieve the criteria you must show that you are able to:	Unit	Criterion reference
Describe the engineering properties, qualities and environmental impact of materials in two components of an engineered product and suggest alternatives.	2	2B.P2
Compare and contrast the materials used in two components in an engineered product with reference to engineering properties, qualities, environmental impact and alternatives.	2	2B.M2
Evaluate the fitness for purpose of materials used in two components of an engineered product in relation to possible alternative materials making reference to properties, qualities, environmental impact and alternatives.	2	2B.D1
Sources of information	<ul style="list-style-type: none"> 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. 	
	<p>Textbooks</p> <p>Clarke, S., Darbyshire, A., Goulden, S., Hallgarth, C. and Watkins, N. (2012) <i>BTEC First Engineering Student Book</i>, Pearson Education, 978-1-44690-243-1</p> <p>Godfrey, N. and Wallis, S. (2004) <i>Engineering GCSE</i>, Cheltenham: Nelson Thornes, 978-0-74878-551-3</p> <p>Gregg Bruce, R., Dalton, W.K., Neely, J.E. and Kibble, R.R. (2004) <i>Modern Materials and Manufacturing Processes</i>, 3rd Edition, Harlow: Pearson Prentice Hall, 978-0-13094-698-0</p> <p>Tooley, M. (2010) <i>BTEC First Engineering 2nd Edition</i>, Oxford: Newnes, 978-1-85617-685-9</p> <p>Tooley, M., Deacon, M. and O'Dwyer, N. (2008) <i>Engineering Level 2 Higher Diploma</i>, London: Edexcel, 978-0-43575-620-8</p> <p>Tooley, M. (2002) <i>Engineering GCSE</i>, Oxford: Newnes, 978-0-75066-576-6</p> <p>Wallis, S., Godfrey, N., Carey, A., Peacock, R., Casey, M. and King, A. (2010) <i>BTEC First Engineering</i>, London: Hodder Education, 978-1-44411-052-4</p> <p>Websites</p> <p>http://science.howstuffworks.com/plastic4 http://www.bbc.co.uk/schools/gcsebitesize/design/resistantmaterials http://www.chemguide.co.uk/inorganic/extraction/iron.html http://www.technologystudent.com</p>	
<div style="border: 1px solid orange; padding: 5px; display: inline-block;"> Continually checking work and providing specific guidance on how to produce a higher grade is not appropriate. </div>		
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.		
To achieve the criteria you must show that you are able to:	Unit	Criterion reference
Identify materials used in two component parts of an engineered product, stating engineering properties for each.	2	1B.2

✓ Example Assignment Brief: Acceptable

Assignment title	2: Materials Used in an Engineered Product		
Assessor	Diane Tennant		
Date issued	9 th October 2014		
Interim Deadline	21 st November 2014	Final deadline	21 st November 2014
Duration (approx)	3 hours		
Qualification suite covered	BTEC Level 1/Level 2 First Award in Engineering		
Units covered	Unit 2: Investigating an Engineered Product		
Learning aims covered	Learning aim B: Understand the selection of specific materials for use in the components that make up an engineered product		
Scenario	<p>The manager of the local engineering company you are working for has asked you to develop your investigation of the engineered product you looked at in Assignment 1 (Technical Specification Criteria for an Engineered Product) by disassembling it. He has asked you to discuss the materials used in its component parts, describing properties and qualities, environmental impact and possible alternative materials.</p> <p>The product you select must have a minimum of two components.</p> <p><i>[Or]</i></p> <p>The product you have been provided with has a minimum of two different components.</p> <p><i>[delete as appropriate]</i></p>		
Task 1	<p>Selection, use and impact of different materials in an engineered product Disassemble the engineered product you have been given/selected <i>[delete as appropriate]</i> and then produce a written report that contains the following information:</p> <ul style="list-style-type: none"> • A brief description of two components in the product • The name, properties and qualities of the materials the two components are made from • Environmental impact details for the materials used, including extraction/processing and disposal after their useful lifespan • Alternative materials that could be used 		
Evidence you must produce for this task	<p>Written report (one side of A3) You may find it helpful to take photographs of the two components which you can then label and annotate/refer to in your report.</p>		

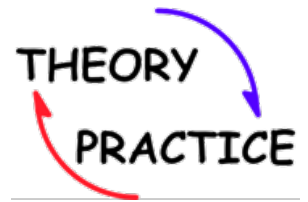
Issue date is 5 weeks into the autumn term, so has given the learners chance to learn about business environments, the demands of the assignment and the type of evidence needed.

Task is holistic and gives all learners the opportunity to attempt the higher criteria.

✓ **Engineering Example Assignment Brief:**
Acceptable
page 2

Criteria covered by this task:		
To achieve the criteria you must show that you are able to:	Unit	Criterion reference
Describe the engineering properties, qualities and environmental impact of materials in two components of an engineered product and suggest alternatives.	2	2B.P2
Compare and contrast the materials used in two components in an engineered product with reference to engineering properties, qualities, environmental impact and alternatives.	2	2B.M2
Evaluate the fitness for purpose of materials used in two components of an engineered product in relation to possible alternative materials making reference to properties, qualities, environmental impact and alternatives.	2	2B.D1
Sources of information	<p>Textbooks</p> <p>Clarke, S., Darbyshire, A., Goulden, S., Hallgarth, C. and Watkins, N. (2012) <i>BTEC First Engineering Student Book</i>, Pearson Education, 978-1-44690-243-1</p> <p>Godfrey, N. and Wallis, S. (2004) <i>Engineering GCSE</i>, Cheltenham: Nelson Thornes, 978-0-74878-551-3</p> <p>Gregg Bruce, R., Dalton, W.K., Neely, J.E. and Kibble, R.R. (2004) <i>Modern Materials and Manufacturing Processes</i>, 3rd Edition, Harlow: Pearson Prentice Hall, 978-0-13094-698-0</p> <p>Tooley, M. (2010) <i>BTEC First Engineering 2nd Edition</i>, Oxford: Newnes, 978-1-85617-685-9</p> <p>Tooley, M., Deacon, M. and O'Dwyer, N. (2008) <i>Engineering Level 2 Higher Diploma</i>, London: Edexcel, 978-0-43575-620-8</p> <p>Tooley, M. (2002) <i>Engineering GCSE</i>, Oxford: Newnes, 978-0-75066-576-6</p> <p>Wallis, S., Godfrey, N., Carey, A., Peacock, R., Casey, M. and King, A. (2010) <i>BTEC First Engineering</i>, London: Hodder Education, 978-1-44411-052-4</p> <p>Websites</p> <p>http://science.howstuffworks.com/plastic4</p> <p>http://www.bbc.co.uk/schools/gcsebitesize/design/resistantmaterials</p> <p>http://www.chemguide.co.uk/inorganic/extraction/iron.html</p> <p>http://www.technologystudent.com</p>	
	<p style="text-align: center;">Note to Assessors:</p> <p style="text-align: center;"><i>We're committed to ensuring that teachers and students have a choice of resources to support their teaching and study.</i></p> <p style="text-align: center;"><i>We would encourage you to use relevant resources for your local area such as local employers, newspapers and council websites.</i></p> <p style="text-align: center;"><i>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.</i></p> <p style="text-align: center;"><i>Above are just some examples of textbooks. Further useful resources may be found at: www.edexcel.com/resources</i></p>	
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.		
To achieve the criteria you must show that you are able to:	Unit	Criterion reference
Identify materials used in two component parts of an engineered product, stating engineering properties for each.	2	1B.2

Theory into practice



Observation Record

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, an external expert or placement supervisor) 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 National Diploma in Construction & The Built Environment**. The feedback relates to **Unit 1: Health, Safety and Welfare in Construction and the Built Environment**.

There are two example records:

- ❗ **“Not acceptable”**: a sample Observation Record including many of the problems you've told us you encounter, with callouts identifying the issues.
- ✓ **“Acceptable”**: the same sample Observation Record with the problems resolved, including callouts explaining why this is more effective.



Example Observation Record: Not Acceptable

Learner name:	Group 1		
Qualification:	BTEC National Diploma in Construction & The Built Environment		
Unit number & title:	Unit 1: Health, Safety and Welfare in Construction and the Built Environment		
Description of activity undertaken			
The group undertook a risk assessment of an onsite workshop and demonstrated reporting procedures.			
Assessment criteria targeted			
<ul style="list-style-type: none"> • P3 describe how to identify the hazards present in a given workplace situation, the people who may be at risk, and the possible consequences • P4 describe the main principles and features of a typical risk assessment for a given workplace situation • M2 carry out a typical risk assessment for a given workplace situation using a suitable format • D1 justify the contents of a risk assessment, in terms of available control measures and what is 'reasonably practicable' 			
How the activity covers the requirements of the assessment criteria			
Don and Phil did the risk assessment, Loretta and Nancy wrote up the report and described the hazards. The group provided evidence to achieve P3, P4 and M2.			
<div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid orange; border-radius: 15px; padding: 5px; width: 20%;">Criteria should not be confirmed as achieved.</div> <div style="border: 1px solid orange; border-radius: 15px; padding: 5px; width: 30%;">The learner should sign and date the observation, confirming its accuracy, and use this as supporting evidence for their assignment submission.</div> <div style="border: 1px solid orange; border-radius: 15px; padding: 5px; width: 30%;">This description of the group activity does not provide sufficient evidence for an assessor to make a decision for each of the learners</div> </div>			
Learner name:			
Learner signature:		Date:	March 25 th 2014
Assessor name:	Diane Tennant		
Assessor signature:	<i>Diane Tennant</i>	Date:	March 25 th 2014

✓ Example Observation Record: Acceptable

Learner name:	Don Brown		
Qualification:	BTEC National Diploma in Construction & The Built Environment		
Unit number & title:	Unit 1: Health, Safety and Welfare in Construction and the Built Environment		
Description of activity undertaken			
Don undertook a risk assessment of an onsite workshop and demonstrated reporting procedures. This was followed by a presentation to the group, identifying the hazards present, outlining how he completed the risk assessment and provided justification for the judgements made.			
Assessment criteria targeted			
<ul style="list-style-type: none"> • P3 describe how to identify the hazards present in a given workplace situation, the people who may be at risk, and the possible consequences • P4 describe the main principles and features of a typical risk assessment for a given workplace situation • M2 carry out a typical risk assessment for a given workplace situation using a suitable format • D1 justify the contents of a risk assessment, in terms of available control measures and what is 'reasonably practicable' 			
How the activity covers the requirements of the assessment criteria (this does not confirm achievement of assessment criteria or confer an assessment decision)			
Don undertook the risk assessment with Phil; both of them identifying and discussing the hazards present and contributing to the completion of a risk assessment report each.			
<p>Afterwards, Don then presented his findings to the group, explaining step-by-step how he approached the risk assessment. He correctly referred to the HSE's "Five Steps to Risk Assessment". Don identified the people who may be at risk and the consequences and gave some reasons for his judgements, but this was fairly brief and didn't provide full justification.</p> <p>This observation should be submitted with the notes, full report and evaluation produced for the rest of Assignment 1.</p>			
<div style="border: 1px solid orange; border-radius: 15px; padding: 5px; display: inline-block; background-color: #fff9c4;">Criteria are not confirmed as achieved.</div>			
<div style="border: 1px solid orange; border-radius: 15px; padding: 5px; display: inline-block; background-color: #fff9c4;">This is an appropriate description and identifies that this observation forms part of wider evidence to be submitted for assessment.</div>			
Learner name:	Don Brown		
Learner signature:	<i>Don Brown</i>	Date:	March 25 th 2014
Assessor name:	Diane Tennant		
Assessor signature:	<i>Diane Tennant</i>	Date:	March 25 th 2014

Assessment Record

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 identifying the issues.
- ✓ **"Acceptable"**: the same sample Assessment Record with the problems resolved, including callouts explaining why this is more effective.

Example Assessment Record: Not Acceptable

Programme	BTEC First Award in Engineering	Learner name	Don Brown
Assignment title	Identifying Engineering Materials	Assessor name	Diane Tennant
Unit no. & title	Unit 5: Engineering Materials	Target learning aims	Learning aim B: Know about the supply and sustainable use of engineering materials and selection for an engineering product or activity
Issue date	9 th January 2014	Submission deadline	9 th February 2014
First submission / resubmission?*	First Submission	Date submitted	13 th February 2014
Resubmission authorisation by Lead Internal Verifier*	<i>John Musson</i>	Date	6 th March 2014
<p>* All resubmissions must be authorised by the Lead Internal Verifier. Only one resubmission is possible per assignment, providing:</p> <ul style="list-style-type: none"> 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. <p>** Any resubmission evidence must be submitted within 10 working days of receipt of results of assessment.</p>			
Target criteria	Criteria achieved? (Yes / No)	Assessment comments	
1B.4	Yes	You successfully outlined the environmental impact.	
1B.5	Yes	You successfully identified the forms of supply of materials.	
2B.P4	Yes	You have successfully described the material used for an engineering product	
2B.P5	Yes	You have selected appropriate forms of supply of material.	
2B.M2	No	You need to assess whether materials have been used sustainably, whether the best material has been used can it be re-used and how difficult this would be. You haven't looked into this in enough detail. You are not that far away from a higher grade, if you add some work on re-use and better material it will be enough.	
2B.M3	No	Work not attempted. You need to look at the assignment brief and complete this work	
2B.D2	No	Work not attempted. You need to look at the assignment brief and complete this	

The Submission deadline for this assignment was 9th February and therefore this learner is not entitled to a resubmission

The learner has achieved the Level 2 Pass criteria, so there is no need to assess the Level 1 criteria

The assessor must not provide 'scaffolding' or give specific feedback on how to upgrade work. Learners must work independently throughout the assessment cycle

General comments		
You have produced a very clear account and a useful presentation is good. To get M1 and M2 you could produce a word document that supports your account, explaining more about material and how they can be supplied. Remember the work we did on the previous lesson – remember to change the names.		
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	<i>Diane Tennant</i>	Date 28.04.14
Learner comments	I enjoyed learning about materials and how they can affect the environment.	
Learner signature	<i>Don Brown</i>	Date 28.04.14

Again, the assessor has provided specific instructions on how to upgrade work. This is too much guidance and could result in a Standards Verifier not accepting a resubmitted grade. General comments should be on elements such as conduct, timekeeping, attitude, etc.

Example Assessment Record: Acceptable

Programme	BTEC First Award in Engineering		Learner name	Don Brown
Assignment title	Identifying Engineering Materials		Assessor name	Diane Tennant
Unit no. & title	Unit 5: Engineering Materials		Target learning aims	Learning aim B: Know about the supply and sustainable use of engineering materials and selection for an engineering product or activity
Issue date	9 th January 2014	Submission deadline	9 th February 2014	
First submission / resubmission?*	First Submission	Date submitted	9 th February 2014	
Resubmission authorisation by Lead Internal Verifier*	<i>Jofin Musson</i>		Date	6 th March 2014
<p>* All resubmissions must be authorised by the Lead Internal Verifier. Only one resubmission is possible per assignment, providing:</p> <ul style="list-style-type: none"> 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. <p>**Any resubmission evidence must be submitted within 10 working days of receipt of results of assessment.</p>				
Target criteria	Criteria achieved? (Yes / No)	Assessment comments		
2B.P4	Yes	You have successfully described the material used for an engineering product		
2B.P5	Yes	You have selected appropriate forms of supply of material.		
2B.M2	No	You covered the requirements for the Pass criteria, but you haven't sufficiently assessed whether the materials have been used sustainably.		
2B.M3	No	Though you explained the supply of material, you have not justified the selection.		
2B.D2	No	You have not provided sufficient in depth analyses of sustainability of engineering product, materials and forms of supply.		
General comments				
<p>Well done, Don. You have produced a very clear assignment and a useful presentation which successfully met the pass requirements. In future powerpoints, you may want to reduce the amount of text on each slide and bullet your main points. Your presentation to the class was clear, concise and made some very interesting points, showing a good basic understanding of the issues.</p> <p>You have made it clear where your resources and information have come from. However, for future assignments you may want to consider using a range of resources and not just the class text book. At times you have used the wrong their, there or they're, we will pick this up in your next one to one.</p> <p>All in all this is a very good start for this unit. Keep up the good work!</p>				
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	<i>Diane Tennant</i>	Date	21.04.14	
Learner comments	I enjoyed the assignment and I am pleased with the feedback, I will work on my punctuation.			
Learner signature	<i>Don Brown</i>	Date	21.04.14	

The learner has submitted their assignment on time. Therefore, the Lead IV may authorise a resubmission.

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

This feedback is acceptable and is not related to achievement of criteria. It is good practice to provide learners with general feedback that will help improve the quality of work for future assessments.

Contact us



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 for full contact details.

Middle East – China - India



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

- **Middle East:** Mohamed Kamel
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- **Hong Kong or China:** Florence Chan
florence.chan@pearson.com
- **Indian sub continent:**
Saurabh Saxena
saurabh.saxena@pearson.com

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) in the first instance. Elizabeth will put you in touch with the relevant International Quality and Assessment Advisor.

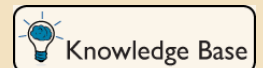
Where can I find more information?



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.

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.