Bryntirion Comprehensive School

BTEC Level 1 / 2 Application of Science

Student Handbook

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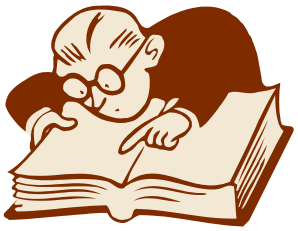
What are Vocational Qualifications?

Vocational qualifications are nationally recognised qualifications. They are different from traditional GCSE and A Levels because they are linked to a particular area of work.



What makes Vocational Qualifications different?

- Students develop skills, knowledge and understanding in the vocational area they are studying.
- Each vocational course is made up of a number of units, allowing students to build up their qualification in stages.
- Students are assessed through coursework.
- Students produce evidence for their key skills qualification through their vocational course.
- Students take responsibility for their own learning by planning their work, doing research and regularly reviewing their progress.

Why do we offer BTEC courses?

- They prepare students for the world of work and provide a good starting point for other qualifications such as NVQs that can be studied in the workplace.
- Employers value the qualities that vocational students bring to the workplace e.g. organisation, time management, communication and research skills.
- Universities value the independent study skills that vocational students bring to their courses.
- The courses are flexible so that they meet the needs of a wide range of students. They are available at different levels in a variety of formats. They can be taken alongside other qualifications such as traditional GCSEs, A levels.
- They give students the opportunity to try a range of activities such as designing products, organising events, investigating how professionals work and working in teams.

What will happen in lessons?

The lessons will vary according to the subject and level but all students should experience most of these activities:

- Discussion - one to one or in groups
- Research – group or individual using a variety of methods
- Evaluating outcomes– manually or using ICT
- Presentations/critiques – in groups or individually
- Practical work
- Display work
- Visits to organisations/museums
- Work with established artists

Which styles of teaching will be used?

Different styles of teaching will be required throughout the course. This will depend on the unit being taught, the stage of delivery and the type of assessment required for that unit.

- **Teacher input**

At the start of a unit there will be a lot of teacher input; question and answer sessions, discussions, note taking and handouts. This may all happen at the beginning of a unit or at different points throughout the unit. It is important to note any information you are given, as it may be required at a later stage in the unit.

- **Student investigation**

Once the assignment has been explained and the tasks have been set, you will have to work on your own and develop design ideas, creating a final outcome to meet the requirements of the task. **The work you produce must be your own; you can use visuals from magazines or the internet, however you must use these as a starting point and develop your own ideas and inspirations. You will not be allowed to copy the work of other students.** You will have to check regularly with your teacher to make sure that your work is correct and to discuss any ideas that you want to develop.

- **Group work**

For some tasks you may have to work in a group, either to find information or to produce evidence. This is quite acceptable providing that all students

take an equal share of the work and that individual contributions are identified.

- **Practical Work.**

Making something such as a display in Retail or a piece of art in Art and Design

- **Learning by experience**

Learning by experience and is usually done in the workplace (e.g. work experience or work placement) or by setting up work situations in the classroom (e.g. a role play of a business interview). Whether real or pretend, a lot can be learned from this type of situation and it is important to make the most of it by preparing thoroughly beforehand and recording any information you find. Inviting visitors into school from the vocational area is another good way of linking your work with what really happens in the workplace.

Developing skills

During your course you will be taught many skills:

- communication skills
- research skills using a variety of methods
- I.C.T. skills using a variety of programs
- practical skills using different techniques and equipment
- presentation skills using a variety of formats
- organisational skills

You will be expected to practise these skills and apply them where appropriate throughout the course.

What will be expected of you?

You will be expected to do all of the following as part of your day-to-day work

- Read and research
- Keep a record of the information you find and the sources
- Plan your work in a logical order and keep a record of your progress
- Talk to your teachers about your ideas and how to achieve the best results
- Produce drafts and final copies of your work
- Produce good quality work with high standards of grammar and spelling
- Present your work in a suitable format according to the purpose and the audience
- Evaluate your work and make suggestions for improvement
- Meet deadlines
- Keep a record of the work you have completed, including the grades and points you have been awarded

Who will be involved with each course?

Subject teachers (assessors)
They are responsible for planning lessons, preparing resources, assessing work and making sure that the units are completed on time.

Lead internal verifier (IV)
This is the teacher in charge of the course. Ms Bidder is in charge of the courses you will be following. She will make sure that the units are being taught correctly and that sufficient resources are available. She will check (IV) the assessment of all teachers on the course and work with the external verifier.

Quality Nominee
This is Mr G. Mahoney and she oversees all of the vocational courses to make sure that standards are being met. This will be done by:

- Visiting lessons
- Looking at students' work
- Collecting information on student achievement
- Surveying teacher/student views

External Verifier
This person has knowledge of the subject and the course and may visit to sample the work from a unit.

Exam Officer
The examinations officer is Mrs J Evans and she is responsible for registering students for the course and for claiming qualifications.

Qualification Structure

The Pearson BTEC Level 1/Level 2 First Award in Application of Science is taught over 120 guided learning hours (GLH). It has four mandatory units. Learners must complete all mandatory units.

This BTEC First Award has units that your centre assesses (internal) and a unit that Pearson sets and marks (external).

It is expected that learners will have learnt the Key Stage 4 Programme of Study for Science before completing the Pearson BTEC Level 1/Level 2 First Award in Application of Science.

Unit	Mandatory units	Assessment	Guided Learning Hours (GLH)
5	Application of Chemical Substances	Internal	30
6	Application of Physical Science	Internal	30
7	Health Applications of Life Science	Internal	30
8	Scientific Skills	External	30

Unit Details

Unit 5 Applications of Chemical Substances

Unit introduction

It is important for chemists working in the manufacturing industry to be able to measure the amount of energy given out or absorbed during chemical reactions. This will enable them to manufacture products safely and efficiently, and also to find uses for chemical reactions that increase or decrease in temperature, in applications such as heat or cold packs.

For exothermic and endothermic reactions, you will measure the amount of heat that some reactions give out and other reactions take in. You may also be able to relate this to the chemical bonds that are broken and made.

Organic compounds are used extensively in society. Many of these are derived from crude oil. You will look at how crude oil is distilled to produce different fractions.

Many of these have uses as fuels. You will study the structure, reactions and uses of some important organic chemicals.

Chemists are constantly finding and developing new types of materials and new ways to use existing materials. More and more composite materials are being used – for example, to make cars, aeroplanes and mobile phones, and in building materials.

Some of these composites use waste plastics. Most recently, smart materials (those that change their properties in response to changes in their environment) are finding applications. Polymers with exceptional insulating properties are used in niche applications, such as firefighting.

The aim of this unit is to build on some of the basic fundamental concepts that you have learnt in Units 1 and 2 in relation to bonding and chemical reactions.

Learning aims

In this unit you will:

A investigate and understand enthalpy changes associated with chemical reactions

B investigate organic compounds used in society

C explore the uses of nanochemicals and new materials.

Learning aims and unit content

What needs to be learnt

Learning aim A: Investigate and understand enthalpy changes associated with chemical reactions

A.1 Exothermic and endothermic reactions:

a. exothermic reactions as reactions that give out heat energy
b. endothermic reactions as reactions that take in heat energy
c. measurement of temperature changes for straightforward exothermic and endothermic reactions
d. classification of temperature changes as positive or negative
e. temperature changes linked to heat energy evolved or absorbed
f. reactions for which enthalpy changes may be measured should include (but are not limited to) dissolution of sodium carbonate and ammonium chloride in water, neutralisation of acids, combustion of alcohols
g. heat/enthalpy change associated with bond-breaking and bond-making
h. overall enthalpy change for a reaction as a combination of bond-breaking and bond-making enthalpy changes
i. use the equation: $q = m\ C\ \Delta T$ heat energy absorbed by water (J) = mass of water (g) x specific heat capacity (J K-1 g-1) x temperature change (K) to determine the amount of heat energy absorbed by water in contact with the reaction
j. simple energy profile diagrams
k. heat packs/cold packs.

What needs to be learnt

Learning aim B: Investigate organic compounds used in society

B.1 Fractional distillation of crude oil:

a. fractional distillation of crude oil based on boiling ranges of components
b. link between boiling ranges of hydrocarbons and length of hydrocarbon chain
c. uses of fractions based on sizes of molecules – gases, petrol, kerosene, diesel oil, fuel oil, bitumens, waxes
d. uses of alkanes as fuels – natural gas (methane), bottled gas (propane and butane), petrol, diesel, kerosene.

B.2 Structural and displayed formulae of organic molecules:

a. alkanes – methane, ethane, propane, butane
b. alkenes – structure of ethene, propene
c. other organic molecules – poly(ethene), ethanol, ethanoic acid, chloroethene, poly(chloroethene) (PVC), dichloromethane
d. use of a line to denote a single covalent bond/shared pair of electrons and two lines to denote a double bond/two shared pairs of electrons.

B.3 Test tube reactions to identify classes of organic molecules:

a. alkenes decolourise bromine water (addition)
b. carboxylic acids effervesce when sodium carbonate is added (neutralisation)
c. alcohols oxidised by acidified dichromate (VI) solution which changes from orange to green (oxidation).

B.4 Uses of organic molecules in society:

a. ethene in the manufacture of poly(ethene) and ethanol
b. ethanol (made by fermentation/from ethene) in alcoholic drinks, biofuels, solvents, cosmetics
c. ethanoic acid in vinegar and making esters
d. dichloromethane in paint stripper and solvents
e. chloroethene in polymerisation to PVC and uPVC
f. TeflonTM (PTFE) in non-stick coatings and low-friction bearings
g. problems of organic molecules (toxicity of compounds and products formed on combustion, flammability and non-biodegradability).

What needs to be learnt

Learning aim C: Explore the uses of nanochemicals and new materials

C.1 Introduction to nanochemistry:

a. nanoscale

b. carbon nanostructures (fullerenes – buckyballs and nanotubes)

c. production of nanotubes.

C.2 Uses of nanochemistry (sun creams, mascara, textiles, sports equipment, single crystal nanowires for processors, mobile phone batteries).

C.3 Implications of nanochemistry:

a. safety and environmental issues

b. ethical issues surrounding the use of nanochemicals whose properties are not fully understood.

C.4 Smart materials whose properties change in response to an external stimulus.

C.5 Examples of materials that are highly specialised and their properties, e.g. Kevlar®, GORE-TEX®, Thinsulate®, titanium dioxide.

Unit 6: Applications of Physical Science

Unit introduction

Scientists have been vital in improving safety in everyday life and in developing many modern technologies by applying their knowledge of forces, waves and electricity. You will develop an understanding of motion and how it relates to road safety. You will also have the opportunity to find out how to represent motion graphically and to carry out investigations, for example, on the way speed cameras operate.

Following on from this, you will develop your understanding of forces and how they are used in applications such as weight measurement or car safety. This theme could be continued through to the investigation of the motion of vehicles. You will also investigate light and find out, for example, how the reflection of light is used to make our roads safer. You could also explore how the human eye functions and how eye glasses are used to correct defects in vision.
Finally, you will investigate how electricity is used in our world, looking at practical uses of electricity by building circuits.

The aim of this unit is to build on the fundamental concepts you have learnt in Units 1 and 3. In this unit you will apply your knowledge and understanding to explore and investigate a range of applications of physics in the real world.

Learning aims

In this unit you will:
A investigate motion
B investigate forces
C investigate light and sound waves
D investigate electricity.

Learning aims and unit content

What needs to be learnt

Learning aim A: Investigate motion

A.1 Measurement of distance and time in simple investigations.

A.2 Use the equation: distance (m) = speed (m/s) x time (s).

A.3 Use the equation: displacement (m) = velocity (m/s) x time (s).

A.4 Acceleration relates to a change in velocity of an object.

A.5 Use the equation: acceleration (m/s2) = change in velocity (m/s) / time taken (s).

A.6 Graphical representations of uniform and non-uniform motion (for objects that are stationary, moving at a constant speed, moving with increasing or decreasing speed).

A.7 Conservation of energy in simple experiments, including energy transformation diagrams.

A.8 Calculations of kinetic energy of moving objects in simple situations, using the following equation: KE = $\frac{1}{2}$ x mass x (speed)2.

A.9 Calculate change in gravitational potential energy using the following equation: PE = mass x acceleration due to gravity x change in height.

A.10 Energy changes affecting transportation and stopping distance.

Learning aim B: Investigate forces

B.1 Forces arise from an interaction between two objects.

B.2 The effect of balanced and unbalanced forces on objects.

B.3 Work is done when a force moves through a distance.

B.4 Use the equation: work done (J) = force (N) x distance (m).

B.5 Use the equation: force (N) = mass (kg) x acceleration (m/s2).

B.6 Identify 'pairs' of forces that act on different objects and understand that these forces are equal in size and opposite in direction.

B.7 Applications of compressive and tensile forces.

B.8 Friction and the normal reaction force arise in response to an applied force. The size of the frictional force matches the applied force up to a specific limit.

B.9 Forces on a:
a. rocket during various stages of flight
b. parachutist
c. car during braking and acceleration.

Learning aim C: Investigate light and sound waves

C.1 Light rays to represent light moving in straight lines.
C.2 Laws of reflection, applied to plane mirrors.
C.3 Reflection of sound (echoes).
C.4 Ray diagrams showing refraction of light in prisms and lenses:
- a. convex
- b. concave.

C.5 Total internal reflection in prisms and optic fibres.
C.6 A lens or mirror with a highly curved surface is more powerful than one with a less curved surface.
C.7 The eye lens focuses light onto the retina and the use of optical lenses to correct simple eye problems.
C.8 The need for a medium for the transmission of sound waves.
C.9 The propagation of sound waves and the subsequent air pressure changes:
- a. compression
- b. rarefaction.

C.10 Applications of light:
- a. clear sightlines at road junctions
- b. plane and convex mirrors as a rear-view mirror
- c. using lenses and mirrors in telescopes
- d. how a simple periscope functions.

C.11 Applications of total internal reflection:
- a. fibre optic cables used to provide a light source for keyhole surgery
- b. reflectors for road safety.

C.12 Applications of sound waves:
- a. voice recognition
- b. ultrasound
- c. sonar
- d. breaking down kidney stones using ultrasound

Learning aim D: Investigate electricity

D.1 Electricity:

a. series circuits

b. parallel circuits.

D.2 Connect meters in circuits to measure voltages and currents.

D.3 Use the equation: resistance (Ω) = voltage (V) / current (A).

D.4 Ohm's law (voltage, current and resistance relationships at a constant temperature).

D.5 Measure currents and voltages, and perform calculations to find resistance.

D.6 The rules governing voltage and current when components are connected to a battery in series.

D.7 The rules governing voltage and current when components are connected to a battery in parallel.

D.8 Voltage-current characteristics of a negative temperature coefficient (NTC) thermistor or a light-dependent resistor.

D.9 Applications: thermistors (NTC) as a means of sensing temperature, or light dependent resistors as a means of sensing the brightness of light.

Unit 7 Health Applications of Life Science

Unit introduction

The knowledge and skills developed in this unit are essential for biological science technicians and scientists working in biology, health care, laboratory services and other biology-related industries.

You will consider both the positive and negative aspects of diet and exercise, and the learning programme should encourage you to develop a balanced view of issues such as obesity and eating disorders. There will also be an opportunity to study the human immune system and how vaccinations can be used to boost the natural system.

Consideration of the public's response to issues surrounding the use of vaccinations could also be included. There is also a good opportunity for you to investigate some of the screening programmes that are used to help early identification of conditions or early diagnosis of disease. A fascinating study can be made of how scientific research has improved in recent years. Other interesting medical applications, such as blood transfusions and stem cell research, are covered in this unit.

By the end of this unit you will have gained knowledge of medical advances and research that use biological processes in the prevention and treatment of certain conditions and diseases.

In this unit you will be able to build on your understanding of the fundamental concepts of biology that you have learnt in previous biology units. This unit enables you to develop and use your knowledge to investigate health-related factors in more detail.

Learning aims

In this unit you will:

A investigate factors that contribute to healthy living

B know how preventative measures can be used to support healthy living

C investigate how some treatments are used when illness occurs.

Learning aims and unit content

What needs to be learnt

Learning aim A: Investigate factors that contribute to healthy living

A.1 Principles, characteristics and the concept of a healthy balanced diet including recommended daily intake of all food groups, and how dietary imbalance may lead to disorder in the human body, to include:

a. under-eating and over-eating
b. age and level of activity.

A.2 The impact of exercise on the health of the human body, to include:

a. physical effects of exercise (stress, cardiovascular health)
b. weight-related issues
c. physical mobility issues.

A.3 Measures taken to improve the health of the population, in relation to unhealthy eating, smoking and alcohol intake.

Learning aim B: Know how preventative measures can be used to support healthy living

B.1 Principles of the immune system and immune response as the human body's first line of defence, to include:

a. physical barriers
b. chemical defences
c. non-specific responses (inflammation, phagocytosis)
d. specific responses (antibodies)
e. potential advantages and disadvantages of vaccination.

B.2 Screening programmes on the human body and their advantages and disadvantages, to include:

a. screening programmes to detect cancer (breast and prostate)
b. screening programmes for antenatal (Down's syndrome)
c. screening programmes for the newborn (phenylketonuria (PKU))
d. vascular screening programmes (atherosclerosis).

Learning aim C: Investigate how some treatments are used when illness occurs

C.1 Principles, advantages/disadvantages and the use/misuse of simple treatments of disorders, to include:

a. antibiotics
b. anti-fungal treatments
c. antiviral treatments
d. analgesics.

C.2 Principles and the uses of:

a. blood grouping and blood transfusion
b. organ donation
c. stem cell therapy.

Unit 8: Scientific Skills

Unit introduction

The aim of this unit is to further develop your knowledge and understanding of the scientific process and build on the scientific investigation skills you have developed in other units.

It is essential that scientists have good investigatory skills, for example:

- carrying out theoretical and practical research
- working in a pilot scale department
- carrying out quality control tests on chemical, biological or physical samples during the stages of the manufacture of products
- calibrating audiological, optical or medical equipment to ensure accuracy of readings when testing hearing
- growing cultures in a laboratory
- testing waste products
- ensuring food products are not harmful
- ensuring water is safe to drink
- testing and drawing conclusions from forensic science evidence.

The examination will contain questions on planning, processing, presenting and analysing data, drawing conclusions and evaluating methodology and conclusions. You will need to demonstrate the application of the skills learnt in this unit, based on familiar and unfamiliar contexts given in an examination paper.

This unit can draw on your knowledge and understanding from Units 5, 6 and 7 of this qualification and the Key Stage 4 Science Programme of Study.
When developing investigative skills learners can work together, however during the examination the learners will work independently under examination conditions.

Learning aims

In this unit you will:
A understand how to produce a good plan for an investigation
B process, present and analyse data, and draw evidence-based conclusions
C evaluate evidence and investigative methods.

Learning aims and unit content

This unit can draw on your knowledge and understanding from Units 5, 6 and 7 of this qualification and the Key Stage 4 Science Programme of Study.

What needs to be learnt

Learning aim A: Understand how to produce a good plan for an investigation

A.1 Produce a good plan:

a. identify relevant equipment and give reasons for these choices
b. identify risks that are relevant to the method and describe how they will be managed (risk assessment)
c. identify appropriate variables (dependent and independent) and describe how they will be controlled
d. give a suitable range and number of measurements and explain why these were chosen
e. outline a logically ordered method appropriate to a given hypothesis.

A.2 Provide a hypothesis based on relevant scientific ideas, which is quantitative or qualitative where appropriate.

Learning aim B: Process, present and analyse data, and draw evidence-based conclusions

B.1 Tabulate data in a clear, logical way:
- a. with appropriately headed columns
- b. with units
- c. in ascending order of independent variables.

B.2 Identify anomalous results in tabulated data.

B.3 Identify approaches to deal with anomalous results in tabulated data.

B.4 Calculations from tabulated data:
- a. excluding anomalous results where appropriate
- b. calculating averages
- c. calculations using given equations
- d. calculations from Units 5, 6 and 7.

B.5 Demonstrate appropriate use of significant figures and application of the correct level of accuracy to which a result can be used.

B.6 Draw graphs:
- a. bar charts
- b. line graphs
- c. pie charts.

B.7 Identify anomalous results on graphs.

B.8 Draw lines of best fit on graphs:
- a. appropriate to the data, excluding any anomalies where appropriate
- b. straight line of best fit
- c. curve of best fit.

B.9 Obtain data from a given graph to find a specific value.

B.10 Obtain data from a given graph to carry out calculations.

B.11 Explain why anomalous results occur:
- a. do not fit the pattern of results
- b. errors in the experimental process.

B.12 Describe the trends and patterns identified in tabulated data and graphs:
- a. directly and indirectly proportional
- b. positive and negative correlation
- c. quantitative relationships.

B.13 Analyse evidence to draw a conclusion.

Learning aim C: Evaluate evidence and investigative methods

C.1 Draw inferences from a conclusion.

C.2 Comment on the extent to which the evidence supports the conclusion.

C.3 Comment on the extent to which the hypothesis is supported by evidence.

C.4 Evaluate the method, suggesting improvements or ways of extending the investigation to support the hypothesis further.

Appeals Policy/Procedures

It is an over-riding principle that all candidates are entitled to the right to fair, valid and reliable assessment and that decisions on assessment should be provided with clear and constructive feedback. Bryntirion Comprehensive School will always seek to uphold this principle. If a candidate feels they have not been treated fairly or there is evidence of staff malpractice with respect to his or her work they should first discuss the matter with the Subject Co-ordinator. If a satisfactory outcome cannot be obtained then the candidate may use the formal appeals procedure.

Appeal to Pearson

Once Bryntirion Comprehensive School's own procedures have been exhausted and the candidate feels that the matter has not been satisfactorily address then an appeal can be made to the BTEC Quality Standards Manager.

Complaints Procedure

A complaint from a candidate involves any dispute other than one regarding assessment (which is dealt with by the Appeals Procedure). Again, any such complaint cannot be referred to Pearson unless and until the internal processes of Bryntirion Comprehensive School have been exhausted. The only exception to this is in the case of Bryntirion Comprehensive School's processes having become overly protracted.

Appeals Procedure

Introduction

Candidates should have access to fair and reliable assessment in which he plays a full part. If this 'access' is to be meaningful the candidate must have the right to appeal against assessment decisions which are unclear or seem unfair. The Appeals Procedure must provide an appropriate audit trail of the process and be clearly logged with concise detailed information at each stage. If a candidate is dissatisfied with an assessment decision then they must have a right of appeal.

Stage 1

The candidate should raise the issue with the assessor during/at the end of an assessment session or within 7 days of the assessment.
The assessor must reconsider the reasons underpinning the decision and provide clear feedback. If the assessor is upholding the original assessment decision, then the candidate must be provided with full information describing what is required to demonstrate their achievement.
This should be provided in writing, and relate specifically to the standards relevant to the assessment decision.
If the candidate remains unhappy with the decision, the candidate then completes an Appeals Form, which will be forwarded to the Internal Moderator/(s).

Stage 2

The Internal Moderator/(s) reviews all evidence and assessment records in order to consider the appeal. A decision should be made within 5 working days and the candidate and assessor must be informed orally and in writing using the appropriate section of the Appeals Form.
If the candidate is dissatisfied with the decision the appeal proceeds to stage 3.

Stage 3

The third and final stage involves the right of appeal to the Assessment Appeals Panel. The Internal Moderator/(s) should pass all records to the senior manager and /or Head of Sixth Form.

The senior manager and/or Head of Sixth Form will convene an Appeals Panel consisting of, for example,

- The senior manager and/or Head of Sixth Form.
- a different assessor
- an independent assessor/Internal Moderator/(s)

Both the candidate and assessor will be invited to make their case to the Panel. The Panel will reach its decisions within 10 working days. Results of the appeals panel will be final.
Details of the appeal will be made available to the External Moderator
If the centre's appeals procedure has been exhausted and the candidate is still dissatisfied, he/she can make a final appeal to the BTEC Quality Standards Manager.

Complaints Procedure

Introduction

Bryntirion Comprehensive operates a specific complaints procedure relating to issues not covered by the appeals procedure.

Any individuals involved in the provision of Edexcel qualifications (not just candidates) may have broader issues they wish to raise.

Disputes, other than those of assessment (which are to be dealt with through the appeals procedure) may involve issues such as alleged discrimination, non-professional practice or personality difficulties, e.g. between assessor and candidate.
Where complaints remain unsettled at a local level, the complainant can raise the issue with Edexcel through the BTEC Quality Standards.

Stage 1-Informal Procedure

The Candidate raises a complaint with/against a member of staff
Where possible this should be resolved informally between the individuals concerned.

Where resolution is not possible the candidate may chose to go to Stage 2 or where the candidate feels it is appropriate to move straight to Stage 2 they have that opportunity.

Stage 2- Formal Procedure

The candidate makes a complaint against a member of staff or action or policy of the organisation.

The candidate makes a complaint in writing to the Head teacher.

The Head Teacher or their nominee will respond acknowledging the complaint within 5 working days.

The Head Teacher or their nominee will investigate the complaint and will seek to resolve the complaint within 30 working days.

The Head Teacher's decision is final.

Assessment Malpractice Policy/Procedures

Purpose:

- That Bryntirion Comprehensive School has policies and procedures in place to deal with malpractice.
- To ensure that issues are dealt with in an open, fair and effective manner.
- That Bryntirion Comprehensive School provides appropriate deterrents and sanctions to minimise the risk of malpractice.
- To impose appropriate penalties and/or sanctions on learners or staff where incidents (or attempted incidents) of malpractice are proven.

Definitions:

Learner malpractice: any action by the learner which has the potential to undermine the integrity and validity of the assessment of the learner's work (plagiarism, collusion, cheating, etc).

Assessor malpractice: any deliberate action by an assessor which has the potential to undermine the integrity of BTEC qualifications.

Plagiarism: taking and using another's thoughts, writings, inventions, etc as one's own.

Minor acts of learner malpractice: handled by the assessor by, for example, refusal to accept work for marking and learner being made aware of malpractice policy. Learner resubmits work in question.

Major acts of learner malpractice: extensive copying/plagiarism, second or subsequent offence, inappropriate for the assessor to deal with. To be referred to the Programme Leader and subsequently the Quality Nominee.

Reponsibilities

Centre: should seek proactive ways to promote a positive culture that encourages learners to take individual responsibility for their learning and respect the work of others.

Assessor: responsible for designing assessment opportunities which limit the opportunity for malpractice and for checking the validity of the learner's work.

Internal Verifier/Lead Internal Verifier: responsible for malpractice checks when internally verifying work.

Quality Nominee: required to inform Edexcel of any acts of malpractice.

Heads of Centre or their nominees: responsible for any investigation into allegations of malpractice.

Procedures

Addressing learner malpractice:

- Promote positive and honest study practices.
- Learners should declare that work is their own: check the validity of their work.
- Use learner induction and handbook to inform about malpractice and outcomes.
- Ensure learners use appropriate citations and referencing for research sources.
- Assessment procedures should help reduce and identify malpractice.

Addressing staff malpractice:

- Staff BTEC induction and updating should include BTEC requirements.
- Use robust internal verification and audited record keeping.
- Audit learner records, assessment tracking records and certification claims.

Dealing with malpractice:

- Inform the individual of the issues and of the possible consequences.
- Inform the individual of the process and appeals rights.
- Give the individual the opportunity to respond.
- Investigate in a fair and equitable manner.

- Inform Pearson of any malpractice or attempted acts of malpractice, which have compromised assessment. Pearson will advise on further action required.
- Penalties should be appropriate to the nature of the malpractice under review.
- Gross misconduct should refer to learner and staff disciplinary procedures.

To protect the integrity of Bryntirion Comprehensive School and BTEC qualifications, the school will:

- Seek to avoid potential malpractice by using the induction period and relevant documentation to inform learners of the school's policy on malpractice and the penalties for attempted and actual incidents of malpractice.
- Show learners the appropriate formats to record cited texts and other materials or information sources.
- Ask learners to declare that their work is their own.
- Ask learners to provide evidence that they have interpreted and synthesised appropriate information and acknowledged any sources used.
- Conduct an investigation into the nature of the malpractice allegation. Such an investigation will be supported by the Senior Leadership Team and all personnel linked to the allegation. It will proceed through the following stages:
    - Make the individual fully aware at the earliest opportunity of the nature of the alleged malpractice and of the possible consequences should malpractice be proven.
    - Give the individual the opportunity to respond to the allegations made.
    - Inform the individual of the avenues for appealing against any judgement made.
    - Document all stages of any investigation.