

# Unit 41: Clinical Psychology

<b>Unit code:</b>	<b>K/502/5607</b>
<b>QCF Level 3:</b>	<b>BTEC Nationals</b>
<b>Credit value:</b>	<b>10</b>
<b>Guided learning hours:</b>	<b>60</b>

## ● Aim and purpose

The unit enables the learner to understand problems with diagnosing and treating mental disorder, and to ethically carry out a psychological investigation.

## ● Unit introduction

This unit investigates mental health disorder including consideration of problems with diagnosis, explanations for and treatments of mental health disorder. It also focuses on psychology as a science and on 'doing' psychology including the ethical issues associated with this.

Clinical psychology is one of the main vocational areas within psychology, with the NHS being the largest employer. Other areas of psychological work linked with clinical psychology include counsellors and other psychotherapists, who, like clinical psychologists, treat mental health disorders. This unit focuses on their work too, when considering treatment for mental health disorder.

Depression, for example, often called the 'common cold' of mental illness, can be explained both biologically and psychologically, is tricky to diagnose, and can be treated by, amongst other treatments, drugs or cognitive behavioural therapy (CBT).

The government has put a lot of funding into Improving Access to Psychological Therapies (IAPT) and has supported the development of CBT. This unit can use depression among other disorders to learn about problems with diagnosis, explanations for mental health disorder, and treating mental health disorder.

As well as studying clinical psychology in this way, the learner will carry out an ethical psychological study to learn more about the relationship between psychology and science.

This unit links to the learner's study of how science works by examining how psychology works through carrying out an investigation, considering problems with diagnosis (eg validity and reliability) and understanding biological and psychological explanations with regard to mental disorder. It is useful for any learner looking at science, because it enables study of 'science' and where 'proof' and 'truth' are problematic.

## ● Learning outcomes

### On completion of this unit a learner should:

- 1 Know the explanations that exist to explain mental disorder
- 2 Understand issues around diagnosing mental disorder
- 3 Know how mental disorders can be treated
- 4 Be able to carry out an ethical investigation into the area of mental health.

# Unit content

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## 1 Know the explanations that exist to explain mental disorder

*Biological explanations:* dopamine hypothesis for schizophrenia; monoamine hypothesis for depression; strengths and weaknesses

*Psychological explanations:* schizophrenogenic family for schizophrenia; cognitive model for depression; strengths and weaknesses

## 2 Understand issues around diagnosing mental disorder

*Diagnostic systems:* systems, eg DSM-IV-TR; historical development and changes over time; validity and reliability

*Cultural issues in diagnosis:* culture bound syndrome, cultural differences in mental disorder, eg schizophrenia

## 3 Know how mental disorders can be treated

*Biological treatment:* dependent on diagnosis, eg antipsychotic drugs for schizophrenia, antidepressants for depression

*Psychological treatments:* dependent on diagnosis, eg care in the community programmes for schizophrenia, cognitive behavioural therapy for depression

## 4 Be able to carry out an ethical investigation into the area of mental health

*Ethical guidelines:* when using human participants in psychological research, eg British Psychological Society guidelines)

*Research methods used in psychology:* questionnaire, interview, case study, correlation

*Methodology:* quantitative data, qualitative data, pilot study, open and closed questions, rating scales, self-report data, hypothesis

*Drawing conclusions from data:* grounded theory, percentages, descriptive statistics (mean, median, mode), graphs

## Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
<b>P1</b> outline biological and psychological explanations for mental disorders [IE1, CT1]	<b>M1</b> compare biological and psychological explanations for mental disorders	<b>D1</b> evaluate the effectiveness of systems in diagnosing mental disorder
<b>P2</b> explain validity, reliability and cultural issues with regard to the diagnosis of mental disorder [IE3, 4, 5]	<b>M2</b> explain how the DSM-IV-TR works in diagnosing mental disorders	
<b>P3</b> describe biological and psychological treatments available for treating mental disorders [CT1,2]	<b>M3</b> explain how the biological and psychological treatments work	<b>D2</b> evaluate the suitability of biological and psychological treatments
<b>P4</b> outline ethical issues with regard to psychological research into mental health [IE3, 5, RL 6]	<b>M4</b> explain the methodologies which were used in the investigation	<b>D3</b> justify the investigation and its suitability to the area of mental health research.
<b>P5</b> plan an ethical investigation into the area of mental health [CT1,2, 4, 5; RL 2; TW 3, 4; SM 3, 4; EP 2, 3, 6]		
<b>P6</b> carry out an investigation into the area of mental health. [IE 2, 6; CT 6; RL 2, 3, 5; TW 3, 4; SM 1, 2, 3; EP 2, 5, 6]		
	<b>M5</b> draw conclusions from the investigation.	

**PLTS:** This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills applicable in the pass criteria. It identifies opportunities for learners to demonstrate effective application of the referenced elements of the skills.

Key	IE – independent enquirers CT – creative thinkers	RL – reflective learners TW – team workers	SM – self-managers EP – effective participators
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# Essential guidance for tutors

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## Delivery

This unit is delivered through a set of real practice-based case studies and practical activities of planning out and conducting an investigation. Learners will be given the opportunity to explore and make use of diagnostic techniques and research methodologies applicable to the areas of mental health and clinical psychology. These will involve consideration of key mental disorders such as depression and schizophrenia. Research techniques will initially be applied to case studies before an actual investigation is planned and conducted. The unit focuses on diagnosis as explanation and the distinction between biological and psychological factors.

Explanation of mental disorders makes a core distinction between biological and psychological explanations. The learners will also consider the subdivision of psychological factors into cognitive and environmental (social and cultural) factors to explain the causes of mental health problems.

The complexity of these factors can hinder the typical process of scientific investigation and explanation. Scientific and medical investigations normally proceed from consideration of a phenomenon as objective data, the formulation of the hypothesis and the testing of the hypothesis in experimental conditions. Given the complexity of psychological factors and the presence of subjective judgements in the data, clinical psychology investigations are often required to adopt a grounded theory approach. Therefore, it is important that learners should be familiar with this approach and the application of different methodologies to collect a variety of different data for analysis. A range of techniques need to be considered in light of the difference in subject matter from scientific and medical investigations.

Clinical psychology has a clear need to ensure the ethical treatment of patients/investigation subjects and to ensure that research is conducted according to established ethical principles. Learners will look at the ethical considerations in the case studies, including issues of patient confidentiality and the concept of informed consent of treatments and ensure that their own planned investigations are conducting according to established ethical guidelines for psychological research such as those established by the British Psychological Society.

Learners will need to be familiar with the DSM\_IV\_TR (Diagnostic and Statistical Manual of Mental Disorders – fourth edition – text revision) as the core categorical classification system for mental disorders. They will apply the categorisation to the case studies presented to them. Two mental disorders, such as schizophrenia, depression, compulsive disorders, will be explored and learners will develop an understanding of the DSM diagnostic axes and evaluate the strengths and limitations of the DSM categories as diagnostic tools.

Mental disorder diagnostic criteria are typically explained in terms of biological and psychological factors. Learners will consider a range of biological hypotheses for common disorders that they have already discussed. Then the case studies will be examined to pick out the psychological factors to develop cognitive and social cause models of the disorders.

Selected case studies will allow the learners to explore cases where a complex set of factors explain the diagnosis. The distinction between causal explanatory factors and contributing factors is considered and the implications for treatment.

In light of the above, diagnostic criteria, biological and psychological treatments and investigative procedures will be further examined. The effectiveness, side effects and purpose of different treatments will be considered and learners will evaluate their suitability for different disorders and, importantly, for different patients.

A large part of any clinical psychology investigation requires consideration of fitness of purpose of research methodology, data, approaches and treatments. As they begin to plan their investigations, learners will need to consider the status of psychology as a science and the possibility of balancing ethical considerations with scientific method needs to be explored. Whereas other scientific investigations would focus on physical

factors, clinical psychology explores potentially highly subjective factors and criteria can often be more judgemental than factual.

Learners will have the opportunity to explore a range of investigative and research methodologies as used in the case studies. Learners will then apply their learning from this unit to planning and conducting an ethical investigation into mental health and clinical psychology. Throughout the practical, investigative work, learners will be required to explore and develop a variety of quantitative and qualitative data gathering techniques, make decisions on how to analyse their data and apply criteria. Learners will conduct a pilot investigation based on their initial planning and then proceed with a full scientific, psychological and ethical investigation and report their findings.

One way to conduct the investigation would be to divide the group by investigation method rather than by subject matter. Groups of learners will conduct face-to-face interviews, devise surveys and questionnaires to collect quantitative and/or qualitative data, review the current literature, etc. Learners will develop and pilot their individual methodologies and consider the purpose and suitability of their data (eg qualitative/quantitative, subjective/objective). The group will then come together to analyse the data. It is suggested that rather than starting with a clear hypothesis to be tested that the learners adopt a grounded theory approach to the investigation – where explanations of the data are not formulated until all the data has been collected and an impartial analysis conducted. While grounded theory is considered to be a social science, qualitative methodology that contradicts the scientific method, it allows for an investigation to proceed from data collection by a variety of methods, to categorisation of the data so as to develop explanatory concepts from which a theory or hypothesis is constructed. This approach can be more effective in dealing with psychological factors and is commonly adopted for psychological investigations.

## Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Introduction to unit and programme of assignments.
<i>Introduction</i> – defining clinical psychology. Discussion of defining mental health problems to draw out the distinction of and biological and psychological explanations for mental disorders.
<i>Understanding the DSM-IV-TR</i> – Begin by ask students to generate their own list of mental disorders. Then compare their lists and definitions with the DSM. Use examples from it with regard to two mental disorders (eg schizophrenia, depression, phobias, obsessive compulsive disorder).
<i>Validity, reliability, cultural issues</i> – define the terms, ask students to think of everyday examples of where each of the three areas is an issue, relate the three issues to two mental disorders (eg schizophrenia, depression, phobias, obsessive compulsive disorder).
<b>Assignment 1: Issues in Diagnosis and Treatment (P1, M1)</b> Use two studies that look at each of the three issues (six studies). Using the study summaries – students could read the summaries and decide which issue they consider.
<b>Assignment 2: Exploring Further the Strengths and Weaknesses of the DSM-IV-TR (P2, M2, D1)</b> Look at case studies of two mental disorders and discuss difficulties of diagnosis using the DSM (with a focus on validity, reliability and cultural issues).
<i>Biological explanations</i> for more than one mental disorder (eg schizophrenia, depression, phobias, obsessive compulsive disorder) – use internet to research the dopamine hypothesis for schizophrenia and genetic explanations – and the monoamine hypothesis for depression and brain functions. Compare the dopamine and monoamine hypotheses.

## Topic and suggested assignments/activities and/assessment

*Psychological explanations* for more than one mental disorder (eg schizophrenia, depression, phobias, obsessive compulsive disorder) – schizophrenogenic mother (schizophrenia), environmental breeder hypothesis (schizophrenia), lack of social support (depression), cognitive model (depression) are suggestions.

### **Assignment 3: Explanation and Diagnosis in Clinical Psychology (P3, M3, D2)**

Case studies of schizophrenic patients and depressed patients to look for such explanations. Consideration of the possibility for multiple causes and contributing factors in the case studies.

*Biological treatments* – antipsychotic and antidepressant drugs – choose three of each to look at side effects, purpose, how far they work.

*Psychological treatments* – community care programmes (for schizophrenia), and token economy programmes for schizophrenia. Cognitive behavioural therapy and person centred therapy (for depression) – see how far they work and what sort of person they suit.

*Ethical considerations* – What are ethics? Why do we need a code of practice? Does clinical practice require different something different from medical ethics? Should research adhere to ethical guidelines.

### **Assignment 4: Comparison of Ethical Guidelines (P4)**

Locate ethical guidelines from two organisations involved in clinical psychology (eg American Psychiatric Association, British Psychology Society) and compare the two. In what ways are they different? Do they cover clinical practice and psychological research?

### **Assignment 5: Plan and Carry Out an Investigation (P5, M4, D3)**

Using a variety of data collection methods such as questionnaire, interview, case study or correlation. Split the group so some use questionnaire, some use interview (or interview with questionnaire), some use case study. All need to gather self report data with ratings so that they can look at correlations and analyse data. All need to use open questions as well and gather qualitative data. All need to include a pilot. *Suggested topics:* high self-esteem related with good mood; good social support related with higher happiness score; happy early childhood (consider ethics here) related with happiness score later.

### **Assignment 6: Analyse the Data and Write up a Report on the Investigation (P6, M3, D3)**

Make use of graphs, mean (if appropriate), median, mode, correlation and the analysis will produce explanatory concepts or categories. Final conclusion should present a coherent explanation.

Review of unit and programme of assignments.

## Assessment

In general terms, learners will become familiar with the different explanations that exist for mental disorders. They will be familiar with the issues around the categorisation, diagnosis and treatment of mental disorders and have considered the ethical issues in psychological research and the area of mental health. Learners will have engaged in the planning and implementation of practical research using a range of methodologies.

Assignment 1 requires the outlining of the different explanations for mental disorders. For P1, learners will classify the case studies as offering biological or psychological explanations based on their reading of the case study summaries. They will demonstrate an awareness of the different explanations and understand that diagnosis of different disorders requires consideration of issues of validity, reliability and cultural/social factors. To achieve M1, learners will need to compare the features of the case studies, explain why they have categorised them as biological or psychological explanations and examine the validity and reliability of each case study.

Assignment 2 involves use of the DSM-IV-TR and familiarity with the DSM categories. For P2, students must demonstrate an awareness of the validity, reliability and cultural issues and how the DSM deals with them. For M2, the learner will not only be aware of the strengths of the DSM but also the weaknesses, particularly in terms of how the criteria it uses to diagnose mental disorders can be applied to cases. To achieve D1,

learners will need to also evaluate just how effective the DSM is and apply it to the case studies. In particular, they will need to focus on how the DSM establishes validity, how it can be reliably applied by different clinical psychologists and if it needs to consider cultural or social variations in patients. For this assignment, learners will need reliable access to the DSM and to the full six case studies (not just the summaries).

Assignment 3 requires a close analysis of the selected case studies. Schizophrenia and depression are both disorders that can be caused by a variety of factors. To achieve P3, learners will need to provide full descriptions of the biological and psychological treatments available for those disorders. M2 involves discussion of exactly how the different treatments work. Learners may also consider the added complexity of there being multiple causes requiring multiple treatments. D2 builds on this by considering the notion that some or all of these may also be contributory factors. Where there is no one primary cause then the suitability of various treatments must be considered in isolation and how they might interact with each other.

In assignment 4, learners will need to locate and describe at least two ethical guidelines or codes of practice. One could be an association code of practice for clinical psychologists and another an organisation's research ethical guidelines. Learners could also proceed to look at what methodologies are prohibited by the ethics code and what research might be considered questionable. A wider perspective on society's attitudes to mental disorder could also be derived from discussion of the ethical principles.

Assignments 5 and 6 involve the practical application of what has been learnt from the case studies. Both assignments require discussion of a variety of research methodologies and data collection techniques. For P5 and P6, the focus is on the development of data collection instruments and the process of gathering such data. M4 requires the learner to justify their selected methodologies in terms of effectiveness, fitness of purpose and adherence to ethical guidelines. For D3, further discussion of the nature of psychological research (as distinct from social and scientific research), fitness of purpose and the difference that having human subjects can make to research is required.

### Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the assessment and grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P1, M1	Issues in Diagnosis and Treatment	As the chief clinical psychologist you need to assign cases to your staff experts on biological and psychological mental disorders.	Using the case study summaries, compare the six studies and categorise them as biological or psychological disorders and rate their awareness of validity, reliability and cultural issues.
P2, M2, D1	Exploring the Strengths and Weaknesses of the DSM-IV-TR	Clinical psychologists must be able to accurately diagnose patients as quickly as possible. Evaluate the effectiveness of the DSM as a diagnostic tool.	Access the DSM-IV-TR and apply the categorisations to the selected case studies. How accurate is the DSM in diagnosing these cases?

Criteria covered	Assignment title	Scenario	Assessment method
P3, M3, D2	Explanation and Diagnosis in Clinical Psychology	Individual treatments have not been effective in some of your recent cases of schizophrenia and depression. It is vital that you look at how to improve your diagnostic accuracy and the effectiveness of assigned treatments.	Provide a detailed explanation of the cause of the disorder and explain how it was diagnosed. Comment on the appropriate treatments and suggest how effective they would be.
P4	Comparison of Ethical Guidelines	Your clinical psychology practice has decided that it needs to adopt a code of practice. Find some appropriate ethical guidelines and advise the practice on which one they should use.	Locate at least two organisations that make their ethical guidelines publicly available. Consider the differences between them and state what the guiding principles are for them and how effectively they achieve their purpose.
P5, M4, D3	Plan and Carry Out an Investigation into Mental Health	You work for the local hospital which is considering if it needs a clinical psychology unit. Research the area of mental health by gathering data on the incidence of mental health disorders, attitudes towards mental health and the availability of experts.	<p>Select an appropriate method for collecting the needed data on mental health. Devise a data collection instrument and a schedule for piloting the instrument. You will also need to consider likely problems with data collection.</p> <p>After piloting and re-evaluation of your data collection, create a data analysis framework that allows you to categorise your data and make your research available to other researchers.</p> <p>Consider an appropriate set of ethical guidelines that you will follow when collecting the data.</p>
P6, M3, D3	Carry Out an Investigation into Mental Health	You work for the local hospital which is considering if it needs a clinical psychology unit.	Carry out the research and full-scale data collection you have planned. Data will need to be analysed and categorised. Explore your findings and analyses. Present your findings and conclusions in an appropriate format to other researchers. Evaluate your investigation in terms of effectiveness and future improvements.

## Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC in Applied science sector suite. This unit has particular links with other units shown below in the BTEC Applied Science suite of qualifications:

Level 1	Level 2	Level 3
	Investigating Human Behaviour	Criminal Psychology
		Applications of Forensic Psychology

### Essential resources

The DSM-IV-TR

DSM diagnostic criteria can be found at: [www.behavenet.com/capsules/disorders/dsm4TRclassification.htm](http://www.behavenet.com/capsules/disorders/dsm4TRclassification.htm).

### Employer engagement and vocational contexts

- Clinical Psychologists in hospitals.
- Counselling services and mental health charities.
- Skills for Health – Sector Skills Council.

### Indicative reading for learners

#### Textbooks

Davison G, Kring A and Neale J – *Abnormal Psychology, Ninth Edition* (John Wiley & Sons Inc, 2003)  
ISBN 9780471692386

Elmes D, Kantowitz B and Roediger H – *Research Methods in Psychology, Seventh Edition* (Thompson Wadsworth, 2003) ISBN 9780495007036

Gross R D – *Psychology the Science of Mind and Behaviour* (Hodden & Stroughton, 1991)  
ISBN 9780340790618

Kalat J W – *Biological Psychology, Sixth Edition* (London International Thomson Publishing, 1998)  
ISBN 9780495603115

Myers D G – *Psychology, 6th Edition* (Sage Publications, 2001) ISBN 9780716776932

Plomin R and McClean G E – *Nature Nurture & Psychology* (American Psychological Association, 1996)  
ISBN ???

Wadeley A – *Ethics in Psychological Research & Practice* (The British Psychological Society, 1991)  
ISBN 9781854330451

#### Websites

American Psychiatric Association [www.psych.org/](http://www.psych.org/)

British Psychological Association [www.bps.org.uk/](http://www.bps.org.uk/)

## Delivery of personal, learning and thinking skills

The table below identifies the opportunities for personal, learning and thinking skills (PLTS) that have been included within the pass assessment criteria of this unit.

Skill	When learners are ...
<b>Independent enquirers</b>	[IE 1, 2, 3] identifying the diagnostic criteria and appropriate data needed for conducting research and consideration of different perspectives when justifying research conclusions
<b>Creative thinkers</b>	[CT 1, 2, 4] generating ideas on how to analyse the data and providing explanations or questioning the assumptions of others
<b>Reflective learners</b>	[RL2, 3] planning out research activities, drawing up a research schedule and evaluating data collection
<b>Team workers</b>	[TW 3] working as a group and using a range of research tools guided by ethical considerations
<b>Self-managers</b>	[SM 1,2, 4] taking an active role in researching, applying research methodologies in practical situations that require adapting to changing circumstances
<b>Effective participators</b>	[EP 2, 3] discussing issues around mental disorder and research ethics and supporting the viewpoints of others in analysis of case studies and data.

Although PLTS are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are ...
<b>Independent enquirers</b>	[IE 4, 5, 6] exploring ethical and cultural issues from different perspectives and providing reasoned arguments based on collected evidence
<b>Creative thinkers</b>	[CT 5, 6] adjusting their own analyses and diagnostic criteria in the light of further evidence and the data collection pilot
<b>Reflective learners</b>	[RL 5, 6] evaluating the progress of their own research and communicating their data to other researchers
<b>Team workers</b>	[TW 4] applying ethical guidelines to their own work
<b>Self-managers</b>	[SM 3, 5] conducting their own research project according to their plan and the given time frame for assessment
<b>Effective participators</b>	[EP 5, 6] negotiating with others to construct theories and explanations of gathered data and research findings.

## ● Functional Skills – Level 2

Skill	When learners are ...
<b>ICT – Use ICT systems</b>	
Select, interact with and use ICT systems independently for a complex task to meet a variety of needs	accessing online case studies and the DSM
Use ICT to effectively plan work and evaluate the effectiveness of the ICT system they have used	drawing up research schedules for data collection
Manage information storage to enable efficient retrieval	storing research data in easily accessible formats
Follow and understand the need for safety and security practices	ensuring that personal data is stored appropriately and data is appropriately anonymised
Troubleshoot	
<b>ICT – Find and select information</b>	
Select and use a variety of sources of information independently for a complex task	selecting appropriate data from case studies to construct a diagnosis
Access, search for, select and use ICT-based information and evaluate its fitness for purpose	making use of online diagnostic criteria and ethical guidelines
<b>ICT – Develop, present and communicate information</b>	
Enter, develop and format information independently to suit its meaning and purpose including: <ul style="list-style-type: none"> <li>• text and tables</li> <li>• images</li> <li>• numbers</li> <li>• records</li> </ul>	collecting, manipulating and analysing research project data to create analytical categories
Bring together information to suit content and purpose	analysing a range of data collected through different methods
Present information in ways that are fit for purpose and audience	communicating data and research findings to other research groups of learners
Evaluate the selection and use of ICT tools and facilities used to present information	evaluating the research investigation pilot and final report
Select and use ICT to communicate and exchange information safely, responsibly and effectively including storage of messages and contact lists	organising data collection via questionnaires

Skill	When learners are ...
<b>Mathematics</b>	
Understand routine and non-routine problems in a wide range of familiar and unfamiliar contexts and situations	collection and analysis of quantitative data
Identify the situation or problem and the mathematical methods needed to tackle it	collection and analysis of quantitative data
Select and apply a range of skills to find solutions	collection and analysis of quantitative data
Use appropriate checking procedures and evaluate their effectiveness at each stage	planning and piloting data collection instruments
Interpret and communicate solutions to practical problems in familiar and unfamiliar routine contexts and situations	analysis of data into appropriate categories
Draw conclusions and provide mathematical justifications	presenting conclusions from numerical and quantitative data
<b>English</b>	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	engaging in discussion of ethical guidelines and codes of practice
Reading – compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions	analysis of case studies
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	presenting investigation final report and justifying theory conclusions drawn from the collected data.