GCE

AS and A Level Specification

Psychology B

For exams from June 2014 onwards
For certification from June 2014 onwards

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Vertical black lines indicate a significant change or addition to the previous version of this specification.

1 Introduction

1.1 Why choose AQA?

It's a fact that AQA is the UK's favourite exam board and more students receive their academic qualifications from AQA than from any other board. But why does AQA continue to be so popular?

- ### Specifications

  Ours are designed to the highest standards, so teachers, students and their parents can be confident that an AQA award provides an accurate measure of a student's achievements. And the assessment structures have been designed to achieve a balance between rigour, reliability and demands on candidates.

- ### Support

  AQA runs the most extensive programme of support meetings; free of charge in the first years of a new specification and at a very reasonable cost thereafter. These support meetings explain the specification and suggest practical teaching strategies and approaches that really work.

- ### Service

  We are committed to providing an efficient and effective service and we are at the end of the phone when you need to speak to a person about an important issue. We will always try to resolve issues the first time you contact us but, should that not be possible, we will always come back to you (by telephone, email or letter) and keep working with you to find the solution.

- ### Ethics

  AQA is a registered charity. We have no shareholders to pay. We exist solely for the good of education in the UK. Any surplus income is ploughed back into educational research and our service to you, our customers. We don't profit from education, you do.

If you are an existing customer then we thank you for your support. If you are thinking of moving to AQA then we look forward to welcoming you.

1.2 Why choose Psychology B?

Purpose of the Specification

The revised Specification B will provide students with a sound understanding of the various methods and approaches in psychology at both AS and A2. At each level, knowledge of methods and approaches will be illustrated through various topic areas representing the core areas of social, cognitive, developmental, biological and individual differences. The topic areas have been chosen because of their importance and prominence within the core area, their accessibility to Advanced Level students and their popularity within the existing Specification B centres.

Changes

Teachers will note only three significant changes, all of which have been necessitated by changes in the QCA criteria for psychology: the removal of internal assessment of Research Methods by means of 'coursework', the introduction of compulsory study of Biopsychology in Unit 1 and the introduction of Individual Differences in Unit 2. Both the topics included under Individual Differences appeared previously on the Specification as A2 topics, so should already be familiar to teachers. The content of these two areas has been adapted to reflect the move from A2 to AS.

Key Features/Benefits

The key factors appealing to teachers will be:

- choice of topics at both AS and A2
- applied psychology options at A2
- continuity of content, with many topic areas remaining very similar to the previous specification, apart from minor updating
- continuity of assessment style: questions will be modelled very closely on the current Specification B papers and there will be continued use of structured questions and scenario questions requiring the application of knowledge
- the explicit coverage of debates in psychology at A2, offering opportunities for extension work and higher-level discussion.

Progression

There is no requirement for prior knowledge of psychology when embarking on this course and we do not expect candidates to have taken the GCSE Psychology course. However, the Specification builds on knowledge and understanding included within the GCSE courses, with coverage of some topics in greater depth and the introduction of new topic areas to engage and further stimulate students. Rather than studying topic areas in isolation as at

GCSE, students will develop a broader understanding of the discipline as a whole through the study of approaches. AS questions will be less structured than at GCSE reflecting the move to advanced level study. At A2, the study of debates in psychology and applied topic areas will prepare students for higher-level study, as will the coverage of inferential statistics. Questions at A2 will be less structured than at AS, with greater emphasis on extended writing. At both AS and A2, question papers will assess students' ability to apply their knowledge rather than just the ability to learn material. Acquiring the skills of application should ease the transition from AS/A2 to study in higher education where students are required to think for themselves.

1.3 How do I start using this specification?

Already using the existing AQA Psychology B specification?

- Register to receive further information, such as mark schemes, past question papers, details of teacher support meetings, etc, at **http://www.aqa.org.uk/rn/askaqa.php** Information will be available electronically or in print, for your convenience.
- Tell us that you intend to enter candidates. Then we can make sure that you receive all the material you need for the examinations. This is particularly important where examination material is issued before the final entry deadline. You can let us know by completing the appropriate Intention to Enter and Estimated Entry forms. We will send copies to your Exams Officer and they are also available on our website **http://www.aqa.org.uk/admin/p_entries.html**

Not using the AQA specification currently?

- Almost all centres in England and Wales use AQA or have used AQA in the past and are approved AQA centres. A small minority are not. If your centre is new to AQA, please contact our centre approval team at **centreapproval@aqa.org.uk**

1.4 How can I find out more?

Ask AQA

You have 24-hour access to useful information and answers to the most commonly-asked questions at **http://www.aqa.org.uk/rn/askaqa.php**

If the answer to your question is not available, you can submit a query for our team. Our target response time is one day.

Teacher Support

Details of the full range of current Teacher Support meetings are available on our website at **http://www.aqa.org.uk/support/teachers.html**

There is also a link to our fast and convenient online booking system for Teacher Support meetings at **http://events.aqa.org.uk/ebooking**

If you need to contact the Teacher Support team, you can call us on 01483 477860 or email us at **teachersupport@aqa.org.uk**

2 Specification at a Glance

AS Examinations

AS Award 1186

Unit 1 – PSYB1
Introducing Psychology

50% of AS, 25% of A Level
Externally-assessed examination, 1 hour 30 minutes
60 marks

Candidates answer three compulsory questions.

Available in June only

Unit 2 – PSYB2
Social Psychology, Cognitive Psychology and Individual Differences

50% of AS, 25% of A Level
Externally-assessed examination, 1 hour 30 minutes
60 marks

Candidates answer three questions.

Available in June only

A2 Examinations

A Level Award 2186

Unit 3 – PSYB3
Child Development and Applied Options

25% of A Level
Externally-assessed examination, 2 hours
60 marks

Candidates answer three questions.

Available in June only

Unit 4 – PSYB4
Approaches, Debates and Methods in Psychology

25% of A Level
Externally-assessed examination, 2 hours
60 marks

Candidates answer three questions.

Available in June only

AS + A2 = A Level

3 Subject Content

3.1 Unit 1 PSYB1 Introducing Psychology

Students should have experience of designing and conducting informal classroom research using a variety of methods. They will be expected to analyse data collected in investigations and draw conclusions based on research findings. They will be required to draw on these experiences to answer questions in the examination for this unit.

Approaches

Topics	3.1.1 Key Approaches in Psychology 3.1.2 Biopsychology
Aims	• To introduce students to the key approaches in psychology. • To promote an understanding of the role of physiology in behaviour. • To promote an understanding of the genetic basis of behaviour. • To enable appreciation of research methods and ethical issues in the different approaches. • To develop an appreciation of how science works in psychology.
3.1.1 Key Approaches in Psychology	The basic assumptions/distinguishing features of the following approaches: biological; behaviourist; social learning theory; cognitive; psychodynamic and humanistic. The research methods used within each approach. Biological: the influence of genes; genotype and phenotype; biological structures; the evolution of behaviour. Behaviourist: classical conditioning; operant conditioning. Social Learning Theory: modelling; mediating cognitive factors. Cognitive: the study of internal mental processes and the use of models to explain these processes. Psychodynamic: the role of the unconscious; psychosexual stages; the structure of personality; defence mechanisms. Humanistic: free will; concepts of self and self-actualisation; conditions of worth. The strengths and limitations of each approach. The strengths and limitations of research methods used within each approach.
3.1.2 Biopsychology	Basic understanding of the structure and function of neurons and synaptic transmission. The divisions of the nervous system. Localisation of function in the brain (cortical specialisation) including motor, somatosensory, visual, auditory and 'language' centres. Methods used to identify areas of cortical specialisation, including post-mortem examinations; EEGs, scanning techniques, including PET. Actions of the sympathetic and parasympathetic divisions of the autonomic nervous system including, the adrenal glands, adrenalin and fight or flight response.

Gender Development

Topic	3.1.3 Gender Development
Aims	• To demonstrate how key approaches can be applied to the development of gender. • To demonstrate how psychology provides an understanding of human development. • To develop an appreciation of how science works in relation to the investigation of gender development.
Outcomes	Upon completion of this topic, students should be able to • explain concepts related to the development of gender; • understand and appreciate the biological, social learning, cognitive and psychodynamic explanations of gender development.

3.1.3 Gender Development

Concepts	Sex and gender: androgyny; sex-role stereotypes; cultural variations in gender-related behaviour; nature and nurture.
Explaining gender development	Biological explanations: typical and atypical sex chromosome patterns, including Klinefelter's syndrome and Turner's syndrome; influence of androgens (including testosterone) and oestrogens. Social learning theory: reinforcement; modelling; imitation and identification. Cognitive approach: Gender schema theory; Kohlberg's cognitive-developmental theory, including gender identity, gender stability and gender constancy. Psychodynamic approach: Freud's psychoanalytic theory; Oedipus complex; Electra complex; identification.

Research Methods

Topics	3.1.4 Methods of Research 3.1.5 Representing Data and Descriptive Statistics 3.1.6 Ethics
Aims	• To promote a critical understanding of quantitative and qualitative methods employed in psychological research. • To promote an understanding of the use of descriptive statistics. • To demonstrate how data can be represented. • To develop an awareness of ethical issues in psychological research. • To develop an appreciation of how science works in psychological research.

3.1.4 Methods of Research

Planning Research	Qualitative and quantitative research: the distinction between qualitative and quantitative data collection techniques; strengths and limitations of quantitative and qualitative data. Formulating research questions. Stating aims. Formulating hypotheses (experimental/alternative/research). Populations and sampling. Sampling techniques, including opportunity, random, stratified and systematic.
Experimental Methods	Experiments: field, laboratory and quasi-experiments. Issue of ecological validity. Independent and dependent variables. Manipulation and control of variables in experiments. Extraneous and confounding variables.

	Experimental designs: repeated or related measures, matched pairs, independent groups and appropriate use of each.
	Controls associated with different designs, including counterbalancing and random allocation. Strengths and limitations of different experimental designs.
	Strengths and limitations of experimental methods.
Non-experimental Methods	Self-report methods: questionnaire construction, including open and closed questions; types of interviews: structured and unstructured.
	Pilot studies and their value.
	Correlation studies. The difference between an experiment and a correlation study.
	Observational studies: natural and laboratory settings; covert and overt; participant and non-participant observation.
	The process of content analysis.
	Case studies. The role of case studies in psychology.
	Strengths and limitations of these methods.
3.1.5 Representing Data and Descriptive Statistics	
Representing Data	Appropriate use of the following tabular and graphical displays: bar charts, graphs, scattergrams and tables.
Descriptive Data	Use of measures of central tendency (mean, median, mode) and measures of dispersion (range and standard deviation).
	Calculation of mean, median, mode and range.
	Correlation as a description of the relationship between two variables. Positive, negative and zero correlations.
3.1.6 Ethics	An awareness of the code of ethics in psychology as specified by the British Psychological Society.
	The application of the code of ethics in psychological research.

3.2 Unit 2 PSYB2 Social Psychology, Cognitive Psychology and Individual Differences

Students should have experience of designing and conducting informal classroom research using a variety of methods. They will be expected to analyse data collected in investigations and draw conclusions based on research findings. They will be required to draw on these experiences to answer questions in the examination for this unit.

In order to answer questions in this Unit, candidates must have studied Experimental Methods in Unit 1 (3.1.4).

Social Psychology

Topics	3.2.1 Social Influence 3.2.2 Social Cognition
Aims	• To provide an introduction to theoretical and methodological approaches in social psychology. • To demonstrate ways in which social psychology may be applied to contemporary social and cultural issues. • To enable students to develop critical and evaluative skills in relation to theory and empirical studies in social psychology. • To develop an appreciation of how science works in social psychology.

3.2.1 Social Influence	Social facilitation, dominant responses, causes of arousal: evaluation apprehension and distraction. Effects of arousal on task performance.
	Types of conformity, including internalisation and compliance.
	Explanations for conformity, including informational social influence and normative social influence.
	Factors affecting conformity, including those investigated by Asch.
	Explanations of obedience.
	Situational factors: conditions affecting obedience to authority as investigated by Milgram.
	Dispositional explanation: the Authoritarian Personality.
	Explanations of defiance of authority.
	Ethical and methodological issues in studying social influence.
3.2.2 Social Cognition	Factors affecting impression formation, including social schemas, primacy and recency effects, central traits and stereotyping.
	Concept of attribution: dispositional and situational attributions; attributional biases, including the fundamental attribution error, the actor-observer effect and the self-serving bias.
	The structure and function of attitudes: cognitive affective and behavioural components; adaptive, knowledge and ego-expressive functions.
	Explanations of prejudice, including competition for resources, social identity theory and the Authoritarian Personality.

Cognitive Psychology

Topics	3.2.3 Remembering and forgetting 3.2.4 Perceptual Processes
Aims	• To introduce students to major areas of study in cognitive psychology. • To give students an understanding of methodological approaches in cognitive psychology. • To develop a critical awareness of theories and research in cognitive psychology. • To develop an appreciation of how science works in cognitive psychology.
3.2.3 Remembering and Forgetting	Models of memory including the distinguishing features/ components of each of the following:
	The Multi-store model (Atkinson and Shiffrin);
	Working memory model;
	Levels of processing.
	Types of long-term memory: episodic; semantic; procedural.
	Explanations of forgetting, including decay, interference, retrieval failure (absence of context and cues), displacement, lack of consolidation and motivated forgetting, including repression.
3.2.4 Perceptual Processes	Perceptual set and the effects of motivation, expectation, emotion and culture on perception.
	Perceptual organisation. The Gestalt principles.
	Gibson's and Gregory's theories of visual perception.
	Depth cues, monocular and binocular. Types of perceptual constancy, including size constancy and shape constancy.

Distortion illusions, including the Muller-Lyer illusion and the Ponzo illusion.

Ambiguous figures, including the Necker Cube and Rubin's vase.

What distortion illusions and ambiguous figures tell us about perception.

Individual Differences

Topics

3.2.5 Anxiety Disorders
3.2.6 Autism

Aims

- To provide an introduction to research into individual differences.
- To develop critical awareness of explanations for anxiety disorders or autism.
- To develop an understanding of the application of psychology in the assessment and treatment of anxiety disorders or autism.
- To develop an appreciation of how science works in research into individual differences.

3.2.5 Anxiety Disorders

Phobias: definition and symptoms. Agoraphobia, social phobias and specific phobias.

Obsessive-compulsive disorder: definition and symptoms. The distinction between obsession and compulsion.

Explanations of phobias including behavioural and psychodynamic.

Explanations of OCD including biological and cognitive.

Treatments for phobias including systematic desensitisation and psychodynamic therapy.

Treatments for OCD including drug therapy and cognitive therapy.

Evaluation of treatments for anxiety disorders.

3.2.6 Autism

Autism: Definition and symptoms, including lack of joint attention. Autism as a syndrome: the triad of impairments.

Biological explanations, including genetics and neurological correlates.

Cognitive explanations, including theory of mind, central coherence deficit and failure of executive functioning.

Studying autism: the Sally-Anne experiment; the 'Smartie tube' test; comic strip stories.

Therapeutic programmes for autism including drug therapy; behaviour modification including the Lovaas technique; parental involvement.

Evaluation of these programmes.

3.3 Unit 3 PSYB3 Child Development and Applied Options

Students should have experience of designing and conducting informal classroom research using a variety of methods. They will be expected to analyse data collected in investigations and draw conclusions based on research findings. They will be required to draw on these experiences to answer questions in the examination for this unit.

SECTION A CHILD DEVELOPMENT

Topics

3.3.1 Social Development
3.3.2 Cognitive Development
3.3.3 Moral Development

Aims

- To introduce students to additional topics in developmental psychology.
- To give students an understanding of methods used in developmental psychology.
- To provide students with knowledge of empirical research and its relationship to theory.
- To develop critical and evaluative skills in relation to theory and research in developmental psychology.
- To enable an appreciation of practical applications of theories and research.
- To develop an appreciation of how science works in developmental psychology.

3.3.1 Social Development

Early relationships	Attachment and the role of caregiver-infant interactions in the development of attachment, including reference to human and animal studies. Function of attachment. Secure and insecure attachments. Measuring attachment.
	Possible short-term and long-term consequences of privation and deprivation.
	Romanian orphan studies: effects of institutionalisation, age-related benefits of adoption (Rutter et al).
	The work of Bowlby, Schaffer, Ainsworth and van Ijzendoorn.
Later Relationships	The development of friendship in childhood and adolescence. Age-related change in friendship. Sex differences in children's friendship.
	Research into the causes and consequences of popularity and rejection.

3.3.2 Cognitive Development

Piaget's theory of cognitive development	Schemas: adaptation, assimilation and accommodation. Piaget's stages of intellectual development. Characteristics of these stages, including object permanence, conservation, egocentrism, class inclusion. Piaget's research, including the three mountains experiment and conservation experiments.
Alternative approaches to children's cognition	Vygotsky and cognitive development within a social and cultural context. Vygotsky's zone of proximal development. Scaffolding. Guided participation in sociocultural activity.
	Nativist explanations and early infant abilities, including knowledge of the physical world (Baillargeon).
	The information processing approach: Siegler's research into problem solving strategies.

3.3.3 Moral development

Piaget and Kohlberg	Piaget's stages of moral development: premoral judgement, moral realism and moral relativism. Kohlberg's pre-conventional, conventional and post-conventional levels. The stages of moral reasoning within these levels. Ways of investigating moral development including the use of moral comparisons and moral dilemmas.
Alternatives to Piaget and Kohlberg	Eisenberg's model of pro-social reasoning, including hedonistic, needs, approval, self-reflective and internalised orientations. Gilligan's ethic of care: differences between boys and girls. Gilligan's three levels of moral development. Damon's research into distributive justice. Psychodynamic explanations of moral development. The role of the superego.

SECTION B APPLIED PSYCHOLOGY OPTIONS

Topics

3.3.4 Cognition and Law
3.3.5 Schizophrenia and Mood Disorders
3.3.6 Stress and Stress Management
3.3.7 Substance Abuse
3.3.8 Forensic Psychology

Aims

- To enable an understanding of how psychology is applied in the real world.
- To encourage appreciation of how psychological concepts, theories and research can be used to explain a variety of behaviours.
- To familiarise students with applied research in psychology.
- To develop an appreciation of how science works in applied psychology.

3.3.4 Cognition and Law

Recognising and remembering faces	Processes involved in recognition of faces. Explanations for face recognition, including feature analysis and holistic forms. The construction of likenesses using composite systems. Identification procedures: simultaneous and sequential line-ups.
Recalling events	Factors affecting the reliability of eye-witness accounts and eye-witness identification, including post-event contamination. Improving eye-witness recall, including features of the cognitive interview. Children as eye-witnesses. Flashbulb memory: memory for shocking events. The false memory debate. Controversy surrounding the recovery of repressed memories. The existence of false memories. Evidence relating to repression and false memory. Ethical and theoretical implications of the false memory debate.

3.3.5 Schizophrenia and Mood Disorders

	Classification of schizophrenia, including sub-types. Symptoms and diagnosis. Explanations, for schizophrenia including biological and sociocultural (labelling and family dysfunction). Treatments of schizophrenia, including anti-psychotic drugs and psychotherapy. The role of community care. Evaluation of these treatments.
Mood Disorders	Unipolar and bipolar depression. Symptoms and diagnosis of unipolar and bipolar depression. Explanations, including biological, cognitive and psychodynamic. Treatments of mood disorders, including biological and cognitive. Evaluation of these treatments.

3.3.6 Stress and Stress Management

Stress and Illness	The role of the autonomic nervous system (ANS) and endocrine system functions in mediating and responding to stress.
	Ways of measuring stress, including physiological, behavioural and self-report techniques.
	The role of personal variables, including behaviour types A, B and C, locus of control and hardiness in mediating responses to stress.
Stress Management	Problem-focused and emotion-focused strategies. The role of defence mechanisms in coping with stress, including repression, regression, rationalisation and denial.
	Techniques of stress management: behavioural approaches, including biofeedback and systematic desensitisation; cognitive therapy.
	The role of social factors in coping with stress: social support, including types of social support.

3.3.7 Substance Abuse

Use and Abuse	Physical and psychological dependence, tolerance and withdrawal in relation to nicotine, alcohol, stimulants and depressants.
	Explanations for substance abuse: hereditary factors; personality characteristics and social factors, including peer influences.
Treatment and Prevention	Psychological treatments and their effectiveness, including aversion therapy and self-management.
	Prevention techniques. Identifying and targeting 'risk' groups. Use of fear-arousing appeals. Social inoculation.
	Health promotion/education in treatment and prevention. The stages of behaviour change proposed in the Prochaska model.

3.3.8 Forensic Psychology

Offending Behaviour	Problems in defining crime. Measuring crime, including official statistics and alternatives (victim surveys and self-report measures). Offender profiling, including typology and geographical approaches.
	Theories of offending. Early biological approaches: atavistic form and somatotype theories. Biological explanations, including genetic transmission. Eysenck's theory of the criminal personality. Psychodynamic and social learning explanations.
Dealing with Offenders	The role of custodial sentencing. Effectiveness of custodial sentencing, including recidivism. Alternatives to custodial sentencing.
	Treatment programmes: behaviour modification; and anger management.
	Evaluation of these treatment programmes.

3.4 Unit 4 PSYB4 Approaches, Debates and Methods in Psychology

Students should have experience of designing and conducting informal classroom research using a variety of methods. They will be expected to analyse data collected in investigations and draw conclusions based on research findings. They will be required to draw on these experiences to answer questions in the examination for this unit.

Approaches in Psychology

Topics	3.4.1 Biological, Behaviourist, Social Learning, Cognitive, Psychodynamic and Humanistic Approaches 3.4.2 Comparison of Approaches
Aims	• To enable the development of understanding and critical appreciation of the breadth of theoretical and methodological approaches in psychology. • To enable students to build on knowledge, understanding and skills developed in other units. • To encourage appreciation of the contrasting and complementary aspects of different approaches in psychology. • To develop an appreciation of how science works in psychology.
3.4.1 Biological, Behaviourist, Social Learning, Cognitive, Psychodynamic and Humanistic Approaches	
Biological Approach	Assumptions of the biological approach. The role of the central and autonomic nervous system in behaviour. The genetic basis of behaviour. Strengths and limitations of the biological approach.
Behaviourist Approach	Assumptions of the behaviourist approach. Key concepts including stimulus, response and reinforcement. Types of reinforcement. Classical and operant conditioning as applied to human behaviour. Strengths and limitations of the behaviourist approach.
Social Learning Theory	Social learning theory as a bridge between traditional behaviourism and the cognitive approach. Assumptions of social learning theory. The role of mediational processes in learning, motivation and performance of behaviour. Observational learning and the role of vicarious reinforcement. Strengths and limitations of social learning theory
Cognitive Approach	Assumptions of the cognitive approach, including the idea that thoughts influence behaviour. Information processing and how this applies to human behaviour and thought. Use of computer analogies in understanding behaviour. Strengths and limitations of the cognitive approach.
Psychodynamic Approach	Assumptions of the psychodynamic approach. Freud's approach to personality structure and dynamics. Unconscious mental processes. Psychosexual stages of development. Freud's use of case studies to highlight concepts. Post-Freudian theories including Erikson's and at least one other. Strengths and limitations of the psychodynamic approach.
Humanistic Approach	Assumptions of the humanistic approach. The person-centred approach of Rogers and Maslow. Rejection of the traditional scientific approach and experimentation. The importance within humanistic psychology of valuing individual experience, promoting personal growth, the concepts of freewill and holism. Strengths and limitations of the humanistic approach.

Application of the approaches to topic areas (eg how the biological approach can be used to explain the topic of gender development).

Practical applications of the approaches (eg cognitive therapy).

3.4.2 Application and Comparison of Approaches

Comparison of biological, behaviourist, social learning, cognitive, psychodynamic and humanistic approaches. The extent to which different approaches overlap and complement each other. The value of individual approaches and the merits of taking an eclectic approach to explaining human behaviour and in the application of psychology.

Debates in Psychology

Topics

3.4.3 Debates in Psychology

Aims

- To enable students to engage in key critical debates in psychology.
- To enable students to build on knowledge, understanding and skills developed in other units.
- To give students a critical understanding of the features and principles of the scientific approach.
- To enable students to relate the different approaches in psychology to the nature of scientific enquiry and the key critical debates.
- To develop an appreciation of debates relating to how science works in psychology.

3.4.3 Debates in Psychology

Free will and determinism. Hard determinism and soft determinism. Biological, environmental and psychic determinism. The scientific emphasis on causal explanations.

The nature-nurture debate. The relative importance of heredity and environment in determining behaviour. An interactionist approach.

Holism and reductionism. The strengths and limitations of reductionist and holistic explanations. An interactionist approach.

Idiographic and nomothetic approaches. The strengths and limitations of idiographic versus nomothetic research.

Psychology and science. The features and principles of the scientific approach: a paradigm; the role of theory; hypothesis testing; empirical methods and replication; generalisation. The subject matter of psychology: overt behaviour versus subjective, private experience. The role of peer review in validating research.

Strengths and limitations of the scientific approach in psychology.

Methods in Psychology

Topics

3.4.4 Inferential Statistics
3.4.5 Issues in Research

Aims

- To build on knowledge of research methods and statistics acquired in previous units.
- To enable understanding of the concepts of hypothesis testing and significance.
- To promote an understanding of significance testing using inferential statistics.
- To inform decision making about the appropriateness of different inferential tests in different circumstances.
- To enable the development of a critical understanding of research issues in psychology.
- To develop an appreciation of how science works in psychological research.

3.4.4 Inferential Statistics

Statistical inference	The concepts of probability and levels of significance; use of critical values in testing for significance. Hypothesis testing. One and two tailed tests. Type I and Type II errors. Positive, negative and zero correlation. Limitations of sampling techniques and generalisation of results.
Statistical tests	Use of non-parametric and parametric tests. Statistical tests of difference: the sign test; Wilcoxon signed ranks test; Mann-Whitney; related t-test (repeated measures) and independent t-test. Statistical tests of association: Spearman's rank order correlation; Pearson's product moment correlation; the Chi-square test. Factors affecting the choice of statistical test, including levels of measurement, type of experimental design. Criteria for parametric testing: interval data; normal distribution; homogeneity of variance.
3.4.5 Issues in Research	Strengths and limitations of different methods of research. Strengths and limitations of qualitative and quantitative data. Reliability and validity applied generally across all methods of investigation. Ways of assessing reliability including test-retest and inter-observer. Ways of assessing validity including face validity and concurrent validity. Critical understanding of the importance of ethical considerations within the social and cultural environment. Ethical considerations in the design and conduct of psychological studies and within psychology as a whole.

3.5 'How Science Works'

How Science Works is an underpinning set of concepts and is the means whereby students come to understand how scientists investigate scientific phenomena in their attempts to explain the world about us. Moreover, How Science Works recognises the contribution scientists have made to their own disciplines and to the wider world.

Further, it recognises that scientists may be influenced by their own beliefs and that these can affect the way in which they approach their work. Also, it acknowledges that scientists can and must contribute to debates about the uses to which their work is put and how their work influences decision-making in society.

In general terms, it can be used to promote students' skills in solving scientific problems by developing an understanding of

- The concepts, principles and theories that form the subject content
- The procedures associated with the valid testing of ideas and, in particular, the collection, interpretation and validation of evidence
- The role of the scientific community in validating evidence and also in resolving conflicting evidence

More details of these principles and procedures are given in (A) to (I) below and these are taken from paragraph 3.6 of GCE AS and A level subject criteria for science (September 2006) which sets out the requirements for the skills, knowledge and understanding of How Science Works.

When students are proficient in dealing with the matters given in (A) to (I) we may say that they have achieved a level of scientific literacy: they have learned the 'language' of science. Students are then, and only then, able to engage with the place and contribution of science in the wider world. (See (J) to (L) below, again taken from paragraph 3.6 of the science criteria.) In particular, students will begin to recognise:

- The contribution that scientists as scientists can make to decision-making and the formulation of policy
- The need for regulation of scientific enquiry and how this can be achieved
- How scientists can contribute legitimately in debates about those claims which are made in the name of science.

Clearly, an examination specification, covering a given body of scientific content and designed for students working at a particular level, cannot cover to the same depth and comprehensiveness all the issues dealt with under (A) to (L) below as these describe in general terms scientific activity which permeates all scientific disciplines. This specification will concentrate on those aspects which, it is deemed, are most appropriate at this level and taking into account the content to be studied. In doing so, it

bears in mind considerations of what is reasonable, manageable and practicable. So, under each of (A) to (L) is indicated the general approach by which the specification will attempt to deal with the individual concepts and associated activities. Also, brief, illustrative examples of areas of the specification where the particular idea(s) may be assessed are included. These examples are not exhaustive and, therefore, do not prescribe every area where How Science Works will be assessed.

A Use theories, models and ideas to develop and modify scientific explanations.

Scientists use theories and models to attempt to explain observations. These theories or models can form the basis for scientific experimental work.

Scientific progress is made when validated evidence is found that supports a new theory or model.

Candidates will be expected to:

- propose hypotheses and design appropriate studies based on their understanding of psychological theory and models
- explain results of studies in terms of psychological theory and concepts
- compare different theories in terms of their ability to explain psychological processes
- apply psychological knowledge to unfamiliar situations.

Examples in this specification include the following:

- *Students might use their knowledge of the multi-store model of memory to design a study to test the effects of rehearsal (§3.2.3).*
- *Candidates might apply their knowledge of social cognition to explain aspects of behaviour presented in a scenario question about a person attending an interview (§3.2.2).*

B Use knowledge and understanding to pose scientific questions, define scientific problems, present scientific arguments and scientific ideas.

Scientists use their knowledge and understanding when observing objects and events, in defining a scientific problem and when questioning the explanations of themselves or of other scientists.

Scientific progress is made when scientists contribute to the development of new ideas, materials and theories.

Candidates will be expected to use knowledge of psychological theory and research to:

- propose psychological hypotheses
- identify appropriate issues for psychological investigations
- explain psychological processes and concepts
- present informed psychological arguments.

Examples in this specification include the following:

- *Students might use their knowledge and understanding of cognitive psychology to propose a series of experimental hypotheses about perception (§3.2.4).*
- *Candidates might review findings of research into the effects of expectation on perception to present an argument in favour of Gregory's theory of perception (§3.2.4).*

C Use appropriate methodology, including ICT, to answer scientific questions and solve scientific problems.

Observations ultimately lead to explanations in the form of hypotheses. In turn, these hypotheses lead to predictions that can be tested experimentally. Observations are one of the key links between the 'real world' and the abstract ideas of science.

Once an experimental method has been validated, it becomes a protocol that is used by other scientists.

ICT can be used to speed up, collect, record and analyse experimental data.

Candidates will be expected to:

- choose methods appropriate for the investigation of psychological problems
- use ICT to prepare materials for an investigation
- use ICT to analyse and present data from psychological investigations.

Examples in this specification include the following:

- *Students might choose to investigate differences in gender-related behaviour, preparing a suitable questionnaire using a word processing package (§3.1.3).*
- *Candidates might be required to choose an appropriate inferential statistical test to analyse sets of data from a research study (§3.4.4).*

D Carry out experimental and investigative activities, including appropriate risk management in a range of contexts.

Scientists perform a range of experimental skills that include manual and data skills (tabulation, graphical skills, etc).

Scientists should select and use equipment that is appropriate when making accurate measurements and should record these measurements methodically.

Scientists carry out experimental work in such a way as to minimise the risk to themselves and others.

Candidates will be expected to:

- take part in class investigations using the experimental and other methods to investigate psychological theories, models and ideas
- consider possible physical and psychological risk to all group members and adjust activities accordingly.

Examples in this specification include the following:

- *Students might conduct a class experiment on classical conditioning of the eye-blink response using a puff of air as the unconditioned stimulus and noise as the neutral-conditioned stimulus (§3.1.1).*
- *Candidates might discuss the physical and psychological risks associated with carrying out a lifestyle survey using an opportunity sample in a town centre (§3.1.4).*

E Analyse and interpret data to provide evidence, recognising correlations and causal relationships.

Scientists look for patterns and trends in data as a first step in providing explanations of phenomena. The degree of uncertainty in any data will affect whether alternative explanations can be given for the data.

Anomalous data are those measurements that fall outside the normal, or expected, range of measured values. Decisions on how to treat anomalous data should be made only after examination of the event.

In searching for causal links between factors, scientists propose predictive theoretical models that can be tested experimentally. When experimental data confirm predictions from these theoretical models, scientists become confident that a causal relationship exists.

Candidates will be expected to:

- analyse and interpret raw and summary data from psychological investigations in class
- explain and interpret summary data from psychological investigations in examinations
- interpret and draw conclusions from findings of their own and others' investigations
- understand the difference between correlation and cause and effect relationships.

Examples in this specification include the following:

- *Students might collect two sets of data in class (digit span and androgyny score), correlate the two sets of data, then discuss the reasons why correlation cannot be used to infer cause and effect (§3.1.4).*
- *Candidates might be given a table of summary data from an investigation into social facilitation and asked to draw conclusions in relation to the aim of the study described, or in relation to psychological theory (§3.2.1).*

F Evaluate methodology, evidence and data, and resolve conflicting evidence.

The validity of new evidence, and the robustness of conclusions that stem from it, is constantly questioned by scientists.

Experimental methods must be designed adequately to test predictions.

Solutions to scientific problems are often developed when different research teams produce conflicting evidence. Such evidence is a stimulus for further scientific investigation, which involves refinements of experimental technique or development of new hypotheses.

Candidates will be expected to:

- evaluate psychological methods in terms of issues such as reliability, validity and ethics
- evaluate evidence on the basis of the method used to gather the evidence
- explain anomalous scores in a set of data
- explain inconsistencies in data
- evaluate the use of descriptive and inferential statistics.

Examples in this specification include the following:

- *Students might be given sets of data in class and asked to identify and explain any anomalous scores §3.4.5).*
- *Candidates might discuss the use of different methods to investigate localisation of function in the brain (§3.1.2).*

G Appreciate the tentative nature of scientific knowledge

Scientific explanations are those that are based on experimental evidence, which is supported by the scientific community.

Scientific knowledge changes when new evidence provides a better explanation of scientific observations.

Candidates will be able to understand that scientific knowledge is founded on experimental evidence and that such evidence must be shown to be reliable and reproducible. If such evidence does not support a theory the theory must be modified or replaced with a different theory. Just as previous scientific theories have been proved inadequate or incorrect, our present theories may also be flawed.

Candidates will be expected to:

- understand the features and principles of the scientific approach in psychology including a paradigm, the role of theory, hypothesis testing, replication and generalisation.

Examples in this specification include the following:

- *Students might carry out their own research into levels of processing, replicate the study two weeks later using the same sample, find that the results are not exactly the same and explore reasons for this (§3.2.3).*
- *Candidates might discuss the behaviourist approach in psychology, considering how the popularity of behaviourism waned leading to the development of the cognitive approach (§3.4.1).*

H Communicate information and ideas in appropriate ways using appropriate terminology.

By sharing the findings of their research, scientists provide the scientific community with opportunities to replicate and further test their work, thus either confirming new explanations or refuting them.

Scientific terminology avoids confusion amongst the scientific community, enabling better understanding and testing of scientific explanations.

Candidates will be expected to:

- use the appropriate psychological terminology to express psychological ideas, describe psychological concepts, interpret and explain psychological findings and describe and discuss psychological theories.

Examples in this specification include the following:

- *Students might design a practical in small groups, then present their designs to the class as a whole, using appropriate psychological terminology (§3.1.4 and §3.4.5).*
- *Candidates should make appropriate reference to Piagetian concepts in a discussion of Piaget's theory of cognitive development (§3.3.2).*

I Consider applications and implications of science and appreciate their associated benefits and risks.

Scientific advances have greatly improved the quality of life for the majority of people. Developments in technology, medicine and materials continue to further these improvements at an increasing rate.

Scientists can predict and report on some of the beneficial applications of their experimental findings.

Scientists evaluate, and report on, the risks associated with the techniques they develop and applications of their findings.

Candidates will be expected to:

- understand and appreciate applications of psychology
- understand and appreciate the implications of psychological findings
- evaluate the contribution of psychological research in terms of benefits and risks.

Examples in this specification include the following:

- *Students might carry out a classroom investigation of eyewitness testimony using two conditions, to compare the effectiveness of the cognitive interview and the standard interview (Geiselman 1985) (§3.3.4).*
- *Candidates might discuss various psychological treatments for psychological disorders, with reference to the benefits and risks to the patient and to society as a whole (§3.3.5).*

J Consider ethical issues in the treatment of humans, other organisms and the environment.

Scientific research is funded by society, either through public funding or through private companies that obtain their income from commercial activities. Scientists have a duty to consider ethical issues associated with their findings.

Individual scientists have ethical codes that are often based on humanistic, moral and religious beliefs.

Scientists are self-regulating and contribute to decision making about what investigations and methodologies should be permitted.

Candidates will be able to appreciate how science and society interact. They should examine how science has provided solutions to problems but that the solutions require society to form judgements as to whether the solution is acceptable in view of moral issues that result. Issues such as the effects on the planet, and the economic and physical well being of the living things on it should be considered.

Candidates will be expected to:

- understand and appreciate the British Psychological Society code of ethics
- apply the code of ethics in their class investigations
- discuss other psychological investigations in relation to the code of ethics.

Examples in this specification include the following:

- *Candidates might design an attitude scale (Likert type) to investigate attitudes to global warming (§3.2.2).*
- *Candidates might discuss ethical issues related to the use of investigations into the genetic basis of behaviour (§3.1.2).*

K Appreciate the role of the scientific community in validating new knowledge and ensuring integrity.

The findings of scientists are subject to peer review before being accepted for publication in a reputable scientific journal.

The interests of the organisations that fund scientific research can influence the direction of research. In some cases the validity of those claims may also be influenced.

Candidates will understand that scientists need a common set of values and responsibilities. They should know that scientists undertake a peer-review of the work of others. They should know that scientists work with a common aim to progress scientific knowledge and understanding in a valid way and that accurate reporting of findings takes precedence over recognition of success of an individual. Similarly the value of findings should be based on their intrinsic value and the credibility of the research.

Candidates will be expected to:

- understand the way in which the scientific community assesses new contributions to a body of research
- understand the process of peer review as a pre-requisite to publication
- understand the role of professional journals.

Examples in this specification include the following:

- *Students might compare a published journal article on some aspect of child development with an unsubstantiated magazine article (§3.4.3).*
- *Candidates might discuss the role of peer review in validating research (§3.1.2).*

L Appreciate the ways in which society uses science to inform decision-making.

Scientific findings and technologies enable advances to be made that have potential benefit for humans.

In practice, the scientific evidence available to decision makers may be incomplete.

Decision makers are influenced in many ways, including their prior beliefs, their vested interests, special interest groups, public opinion and the media, as well as by expert scientific evidence.

Candidates will be able to appreciate that scientific evidence should be considered as a whole. They should realise that new scientific developments inform new technology. They should realise the media and pressure groups often select parts of scientific evidence that support a particular viewpoint and that this can influence public opinion which in turn may influence decision makers. Consequently, decision makers may make socially and politically unacceptable decisions based on incomplete evidence.

Candidates will be expected to:

- understand how psychological research has contributed to decision-making in such areas as education and child-care provision, health and the law.

Examples in this specification include the following:

- *Students might use the internet to find out about*
  - *(i) psychological research into eyewitness reliability (Loftus et al) (§3.3.4);*
  - *(ii) the Devlin Report 1976 about the use of uncorroborated eyewitness accounts in criminal proceedings(§3.3.4).*
- *Candidates might discuss the effect of research into attachment on local authority and private child-care provision and changes in adoption practices (§3.3.1).*

3.6 Mathematical Requirements

In order to develop their skills, knowledge and understanding in science, candidates need to have been taught, and to have acquired competence in, the appropriate areas of mathematics relevant to the subject as set out below.

	Candidates should be able to:
Arithmetic and numerical computation	• recognise and use expressions in decimal and standard form • use ratios, fractions and percentages • make estimates of the results of calculations (without using a calculator)
Handling data	• use an appropriate number of significant figures • find arithmetic means • construct and interpret frequency tables and diagrams, bar charts and histograms • have sufficient understanding of probability, eg to understand how genetic ratios arise • understand the principles of sampling as applied to scientific data • understand the importance of chance when interpreting data • understand the terms mean, median and mode • use a scatter diagram to identify a correlation between two variables • use a simple statistical test • make order of magnitude calculations
Algebra	• understand and use the symbols: =, <, <<, >>, >, ∞, ~ • substitute numerical values into algebraic equations using appropriate units for physical quantities
Graphs	• translate information between graphical, numerical and algebraic forms • plot two variables from experimental or other data.

4 Scheme of Assessment

4.1 Aims

AS and A Level courses based on this specification should encourage candidates to:

- develop their interest in, and enthusiasm for, the subject, including developing an interest in further study and careers in the subject
- appreciate how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society
- develop and demonstrate a deeper appreciation of the skills, knowledge and understanding of *How Science Works*
- develop essential knowledge and understanding of different areas of the subject and how they relate to each other.

4.2 Assessment Objectives (AOs)

The Assessment Objectives are common to AS and A Level. The assessment units will assess the following Assessment Objectives in the context of the content and skills set out in Section 3 (Subject Content).

Specifications must require, in all assessment units, that candidates demonstrate these Assessment Objectives in the context of the skills, knowledge and understanding prescribed, including using extended prose.

Each assessment unit must address one or more aspects of each of the assessment objectives.

In the context of these Assessment Objectives, the following defintions apply:

- Knowledge: includes facts, specialist vocabulary, principles, concepts, theories, models, practical techniques, studies and methods
- Issues: include ethical, social, economic, environmental, cultural, political and technological
- Processes: include collecting evidence, explaining, theorising, modelling, validating, interpreting, planning to test an idea, peer reviewing.

AO1: Knowledge and understanding of science and of *How Science Works*

Candidates should be able to:

- recognise, recall and show understanding of scientific knowledge
- select, organise and communicate relevant information in a variety of forms.

AO2: Application of knowledge and understanding of science and of *How Science Works*

Candidates should be able to:

- analyse and evaluate scientific knowledge and processes
- apply scientific knowledge and processes to unfamiliar situations including those related to issues
- assess the validity, reliability and credibility of scientific information.

AO3: *How Science Works* – Psychology

Due to the potential age of A Level candidates and the possible nature of investigative activities in psychology, candidates will not be expected to demonstrate the skills of investigation through internal assessment. Candidates should therefore be able to:

- describe ethical, safe and skilful practical techniques and processes, selecting appropriate qualitative and quantitative methods
- know how to make, record and communicate reliable and valid observations and measurements with appropriate precision and accuracy, through using primary and secondary sources
- analyse, interpret, explain and evaluate the methodology, results and impact of their own and others' experimental and investigative activities in a variety of ways.

It is expected, however, that candidates should still carry out investigative activities appropriate for the study of psychology at this level.

Quality of Written Communication (QWC)

In GCE specifications which require candidates to produce written material in English, candidates must:

- ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear
- select and use a form and style of writing appropriate to purpose and to complex subject matter
- organise information clearly and coherently, using specialist vocabulary when appropriate.

In this specification QWC will be assessed in Unit 1, in the final part of Questions 1 and 2, and in Unit 2 in the final part of all questions. The QWC mark will form part of the descriptor for the mark bands. In Units 3 and 4, QWC will be assessed in the 12-mark question. Descriptors for QWC will be included in the mark bands.

Weighting of Assessment Objectives for AS

The table below shows the approximate weighting of each of the Assessment Objectives in the AS units.

Assessment Objectives	Unit Weightings (%)		Overall weighting of AOs (%)
	Unit 1	Unit 2	
AO1	13.33	23.33	36.67
AO2	13.33	21.67	35.00
AO3	23.33	5	28.33
Overall weighting of units (%)	50	50	100

Weighting of Assessment Objectives for A Level

The table below shows the approximate weighting of each of the Assessment Objectives in the AS and A2 units.

Assessment Objectives	Unit Weightings (%)				Overall weighting of AOs (%)
	Unit 1	Unit 2	Unit 3	Unit 4	
AO1	6.67	11.67	9.33	4.33	32
AO2	6.67	10.67	14.33	9.33	41
AO3	11.67	2.67	1.33	11.33	27
Overall weighting of units (%)	25	25	25	25	100

4.3 National Criteria

This specification complies with the following.

- The Subject Criteria for Science: Psychology
- The Code of Practice for GCE
- The GCE AS and A Level Qualification Criteria
- The Arrangements for the Statutory Regulation of External Qualifications in England, Wales and Northern Ireland: Common Criteria

4.4 Prior Learning

There are no prior learning requirements. Any requirements set for entry to a course following this specification are at the discretion of centres.

4.5 Synoptic Assessment and Stretch and Challenge

The Specification affords opportunities for synopticity and stretch and challenge in terms of content, structure and assessment.

Content and structure

The two prevailing themes of the specification at both AS and A2 level are the approaches in psychology and research methods. In Unit 1 candidates are introduced to the major approaches and the whole range of research methods used by psychologists. Further topics at AS are then set against the backdrop of approaches and methods. This integrated approach will enable the more capable students to gain a rounded and holistic understanding of the discipline, whilst being sufficiently compartmentalised for those students who find broader understanding too great a challenge at this level. This underpinning knowledge of approaches and methods is extensively elaborated at A2, thereby enabling ready access to, and a deeper understanding of, new topics addressed at A2. For example, in the fields of child development and applied psychology (Unit 3) students consider issues facing those working in these fields of psychology.

In addition, at A2 (Unit 4), students cover the broader debates in psychology, such as free will and determinism and the nature of science. These broad issues are used to afford an in-depth understanding of A2 topics in the context of science as whole and in relation to issues affecting the application of psychology and other areas of science across a variety of circumstances. It is anticipated that coverage of debates will provide ample opportunity for stretch and challenge in that the debates may be understood and appreciated at a variety of levels. For example, whilst most students will be able to explain what is meant by reductionism and the limitations of a reductionist approach to explaining and treating mental disorders, only the more able students will be fully able to consider the broader impact of years of reductionist thinking on health service provision and structure.

Building on the knowledge of research methods gained in Unit 1, A2 students cover inferential statistics and further develop their working knowledge of research methods. At this level, students will be challenged by opportunities to apply what they have learned about research methods throughout the two years, for example, designing research for the Unit 4 examination paper or commenting on research findings presented in the Unit 3 paper.

Assessment

Assessment at both AS and A2 requires students to take an integrated approach. In order to answer questions on the Unit 2 paper, AS students will need to have covered specified content of the research methods section in Unit 1. In both papers at A2, students will be expected to demonstrate a good understanding of research methods, showing that they can put into practice techniques of research covered at both AS and A2. Application questions will be a central theme of all question papers, requiring students to apply their knowledge and understanding of psychology in a variety of contexts. Students will need to have a good working knowledge of practical psychology for all Units and be able to apply their psychological skills to a range of novel scenarios. For example, students might be assessed on their ability to suggest improvements to a given research study or design an alternative study in a question about research methods (Unit 4), or be asked to comment on techniques used to gather data in developmental psychology (Unit 3). In terms of stretch and challenge, applied questions differentiate well between able students who have learned the material and reproduce it when necessary, and the most able students who can use their material in an innovative way, thinking like a psychologist in a novel situation.

4.6 Access to Assessment for Disabled Students

AS/A Levels often require assessment of a broader range of competences. This is because they are general qualifications and, as such, prepare candidates for a wide range of occupations and higher level courses.

The revised AS/A Level qualification and subject criteria were reviewed to identify whether any of the competences required by the subject presented a potential barrier to any disabled candidates. If this was the case, the situation was reviewed again to ensure that such competences were included only where essential to the subject. The findings of this process were discussed with disability groups and with disabled people.

Reasonable adjustments are made for disabled candidates in order to enable them to access the assessments. For this reason, very few candidates will have a complete barrier to any part of the assessment.

Candidates who are still unable to access a significant part of the assessment, even after exploring all possibilities through reasonable adjustments, may still be able to receive an award. They would be given a grade on the parts of the assessment they have taken and there would be an indication on their certificate that not all the competences had been addressed. This will be kept under review and may be amended in the future.

5 Administration

5.1 Availability of Assessment Units and Certification

After June 2013, examinations and certification for this specification are available in June only.

5.2 Entries

Please refer to the current version of *Entry Procedures and Codes* for up to date entry procedures. You should use the following entry codes for the units and for certification.

Unit 1 – PSYB1

Unit 2 – PSYB2

Unit 3 – PSYB3

Unit 4 – PSYB4

AS certification – 1186

A Level certification – 2186

5.3 Private Candidates

This specification is available to private candidates. As we are no longer providing supplementary guidance in hard copy, see our website for guidance and information on taking exams and assessments as a private candidate:

www.aqa.org.uk/exams-administration/entries/private-candidates

5.4 Access Arrangements and Special Consideration

We have taken note of equality and discrimination legislation and the interests of minority groups in developing and administering this specification.

We follow the guidelines in the Joint Council for Qualifications (JCQ) document: *Access Arrangements, Reasonable Adjustments and Special Consideration: General and Vocational Qualifications.* This is published on the JCQ website (**http://www.jcq.org.uk**) or you can follow the link from our website (**http://www.aqa.org.uk**).

Access Arrangements

We can make arrangements so that candidates with disabilities can access the assessment. These arrangements must be made **before** the examination. For example, we can produce a Braille paper for a candidate with a visual impairment.

Special Consideration

We can give special consideration to candidates who have had a temporary illness, injury or indisposition at the time of the examination. Where we do this, it is given **after** the examination.

Applications for access arrangements and special consideration should be submitted to AQA by the Examinations Officer at the centre.

5.5 Language of Examinations

We will provide units for this specification in English only.

5.6 Qualification Titles

Qualifications based on this specification are:

- AQA Advanced Subsidiary GCE in Psychology (B), and
- AQA Advanced Level GCE in Psychology (B).

5.7 Awarding Grades and Reporting Results

The AS qualification will be graded on a five-point scale: A, B, C, D and E. The full A Level qualification will be graded on a six-point scale: A*, A, B, C, D and E. To be awarded an A* candidates will need to achieve a grade A on the full A Level qualification and an A* on the aggregate of the A2 units.

For AS and A Level, candidates who fail to reach the minimum standard for grade E will be recorded as U (unclassified) and will not receive a qualification certificate. Individual assessment unit results will be certificated.

5.8 Re-sits and Shelf-life of Unit Results

Unit results remain available to count towards certification, whether or not they have already been used, as long as the specification is still valid.

Each unit is available in June only. Candidates may re-sit a unit any number of times within the shelf-life of the specification. The best result for each unit will count towards the final qualification. Candidates who wish to repeat a qualification may do so by re-taking one or more units. The appropriate subject award entry, as well as the unit entry/entries, must be submitted in order to be awarded a new subject grade.

Candidates will be graded on the basis of the work submitted for assessment.

Appendices

A Performance Descriptions

These performance descriptions show the level of attainment characteristic of the grade boundaries at A Level. They give a general indication of the required learning outcomes at the A/B and E/U boundaries at AS and A2. The descriptions should be interpreted in relation to the content outlined in the specification; they are not designed to define that content.

The grade awarded will depend in practice upon the extent to which the candidate has met the Assessment Objectives (see Section 4) overall. Shortcomings in some aspects of the examination may be balanced by better performances in others.

AS Performance Descriptions

	Assessment Objective 1	Assessment Objective 2	Assessment Objective 3
Assessment Objectives	**Knowledge and understanding of science and of How science works** Candidates should be able to: • recognise, recall and show understanding of scientific knowledge • select, organise and communicate relevant information in a variety of forms.	**Application of knowledge and understanding of science and of how science works** Candidates should be able to: • analyse and evaluate scientific knowledge and processes • apply scientific knowledge and processes to unfamiliar situations including those related to issues • assess the validity, reliability and credibility of scientific information.	**How science works** Candidates should be able to: • demonstrate and describe ethical, safe and skilful practical techniques and processes, selecting appropriate qualitative and quantitative methods • make, record and communicate reliable and valid observations and measurements with appropriate precision and accuracy • analyse, interpret, explain and evaluate the methodology, results and impact of their own and others' experimental and investigative activities in a variety of ways.
A/B boundary performance descriptions	Candidates characteristically: a) demonstrate relevant, accurate and detailed knowledge of a range of psychological concepts, theories, studies, research methods, applications, principles and perspectives from the AS specification b) show understanding of most principles and concepts from the AS specification c) select relevant information from the AS specification d) organise and present information clearly, using psychological terminology in appropriate contexts.	Candidates characteristically: a) apply principles and concepts in familiar and new contexts involving only a few steps in the argument b) engage with the issue, using relevant analysis and evaluation of psychological theories, concepts, studies and research methods c) describe significant trends and patterns shown by data presented in tabular or graphical form and interpret phenomena with few errors and present arguments and evaluations clearly d) comment critically on statements, conclusions or data e) successfully translate data presented as prose, diagrams, drawings, tables or graphs from one form to another.	Candidates characteristically: a) show sound knowledge and understanding of the principles of research design b) comment effectively on strengths, limitations and ethical issues in research design c) interpret and draw appropriate conclusions from data.

A

AS Performance Descriptions, *continued*

	Assessment Objective 1	**Assessment Objective 2**	**Assessment Objective 3**
E/U boundary performance descriptions	Candidates characteristically: a) demonstrate basic knowledge of theories, concepts, studies and research methods from the AS specification b) show basic understanding of some relevant information c) present information, using basic psychological terminology from the AS specification.	Candidates characteristically: a) apply a given principle to material presented in familiar or closely related contexts involving only a few steps in the argument b) make some attempt to focus on the issue, showing a rudimentary analysis and evaluation of psychological theories, concepts, studies and research methods c) describe some trends or patterns shown by data presented in tabular or graphical form d) when directed, identify inconsistencies in conclusions or data e) successfully translate data from one form to another in some contexts.	Candidates characteristically: a) show basic knowledge and understanding of the principles of research design b) comment on strengths, limitations and ethical issues in research design c) interpret or draw conclusions from data.

A

A2 Performance Descriptions

	Assessment Objective 1	Assessment Objective 2	Assessment Objective 3
Assessment Objectives	**Knowledge and understanding of science and of How science works** Candidates should be able to: • recognise, recall and show understanding of scientific knowledge • select, organise and communicate relevant information in a variety of forms.	**Application of knowledge and understanding of science and of how science works** Candidates should be able to: • analyse and evaluate scientific knowledge and processes • apply scientific knowledge and processes to unfamiliar situations including those related to issues • assess the validity, reliability and credibility of scientific information.	**How science works** Candidates should be able to: • demonstrate and describe ethical, safe and skilful practical techniques and processes, selecting appropriate qualitative and quantitative methods • make, record and communicate reliable and valid observations and measurements with appropriate precision and accuracy • analyse, interpret, explain and evaluate the methodology, results and impact of their own and others' experimental and investigative activities in a variety of ways.
A/B boundary performance descriptions	Candidates characteristically: a) demonstrate relevant, accurate and detailed knowledge of a range of psychological concepts, theories, studies, research methods, applications, principles and perspectives from the A2 specification b) show understanding of most principles and concepts from the A2 specification c) select relevant information from the A2 specification d) organise and present information clearly, using psychological terminology in appropriate contexts.	Candidates characteristically: a) apply principles and concepts in familiar and new contexts involving several steps in the argument b) directly address the issue, showing effective analysis and evaluation when considering psychological concepts, theories, studies, research methods, applications, principles and perspectives c) describe significant trends and patterns shown by complex data presented in tabular or graphical form, interpret phenomena with few errors and present arguments and evaluations clearly d) critically evaluate statements, conclusions or data	Candidates characteristically: a) show sound knowledge and understanding of the principles of research and design b) give clearly reasoned justification for design decisions c) comment effectively on strengths, limitations and ethical issues in research design d) comment effectively on the issues of the reliability and validity of data e) interpret and draw appropriate conclusions from data.

A

A2 Performance Descriptions, *continued*

	Assessment Objective 1	Assessment Objective 2	Assessment Objective 3
A/B boundary performance descriptions, *continued*		Candidates characteristically: e) successfully translate data presented as prose, diagrams, drawings, tables or graphs from one form to another. f) select a wide range of facts, principles and concepts from both AS and A2 specifications g) link together appropriate facts principles and concepts from different areas of the specification.	
E/U boundary performance descriptions	Candidates characteristically: a) demonstrate basic knowledge of appropriate psychological concepts, theories, studies, research methods, applications, principles and perspectives from the A2 specification b) show understanding of some principles from the A2 specification c) select some relevant information from the A2 specification d) present information using some psychological terminology from the A2 specification.	Candidates characteristically: a) apply given principles or concepts in familiar and new contexts involving a few steps in the argument b) partially address the issue, showing basic analysis and evaluation of psychological concepts, theories, studies, research methods, applications, principles and perspectives c) describe, and provide a limited explanation of, trends or patterns shown by complex data presented in tabular or graphical form d) when directed, identify inconsistencies in conclusions or data e) successfully translate data from one form to another in some contexts f) select some facts, principles and concepts from both AS and A2 specifications g) put together some facts, principles and concepts from different areas of the specification.	Candidates characteristically: a) show basic knowledge and understanding of the principles of research design b) justify some design decisions c) comment on strengths, limitations and ethical issues in research design d) comment on the reliability or validity of data e) interpret or draw conclusions from data.

A

B Spiritual, Moral, Ethical, Social and other Issues

The study of Psychology can contribute to candidates' understanding of spiritual, moral, ethical, social and other issues. The study of psychology should engender an awareness of the variety and complexity of the human mind, human behaviour and human relationships. It will promote understanding of self, other people, moral behaviour and thought as well as cultural differences/similarities. The specification provides ample opportunities for the study of moral and ethical issues which form important learning outcomes.

European Dimension

AQA has taken account of the 1988 Resolution of the Council of the European Community in preparing this specification and associated specimen units.

Environmental Education

AQA has taken account of the 1988 Resolution of the Council of the European Community and the Report "Environmental Responsibility: An Agenda for Further and Higher Education" 1993 in preparing this specification and associated specimen units.

Avoidance of Bias

AQA has taken great care in the preparation of this specification and specimen units to avoid bias of any kind.

C Overlaps with other Qualifications

There is overlap between some aspects of GCE Psychology and GCE Health and Social Care.

D Key Skills

Key Skills qualifications have been phased out and replaced by Functional Skills qualifications in English, Mathematics and ICT from September 2010.

GCE Psychology B (2185) For exams from June 2014 onwards

Qualification Accreditation Number: AS 500/2542/9 - A Level 500/2541/7

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For information on courses and events please visit:

http://www.aqa.org.uk/professional-development

Every specification is assigned a discounting code indicating the subject area to which it belongs for performance measure purposes.

The discount codes for this specification are:

AS PK1

A Level 4850

The definitive version of our specification will always be the one on our website, this may differ from printed versions.

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