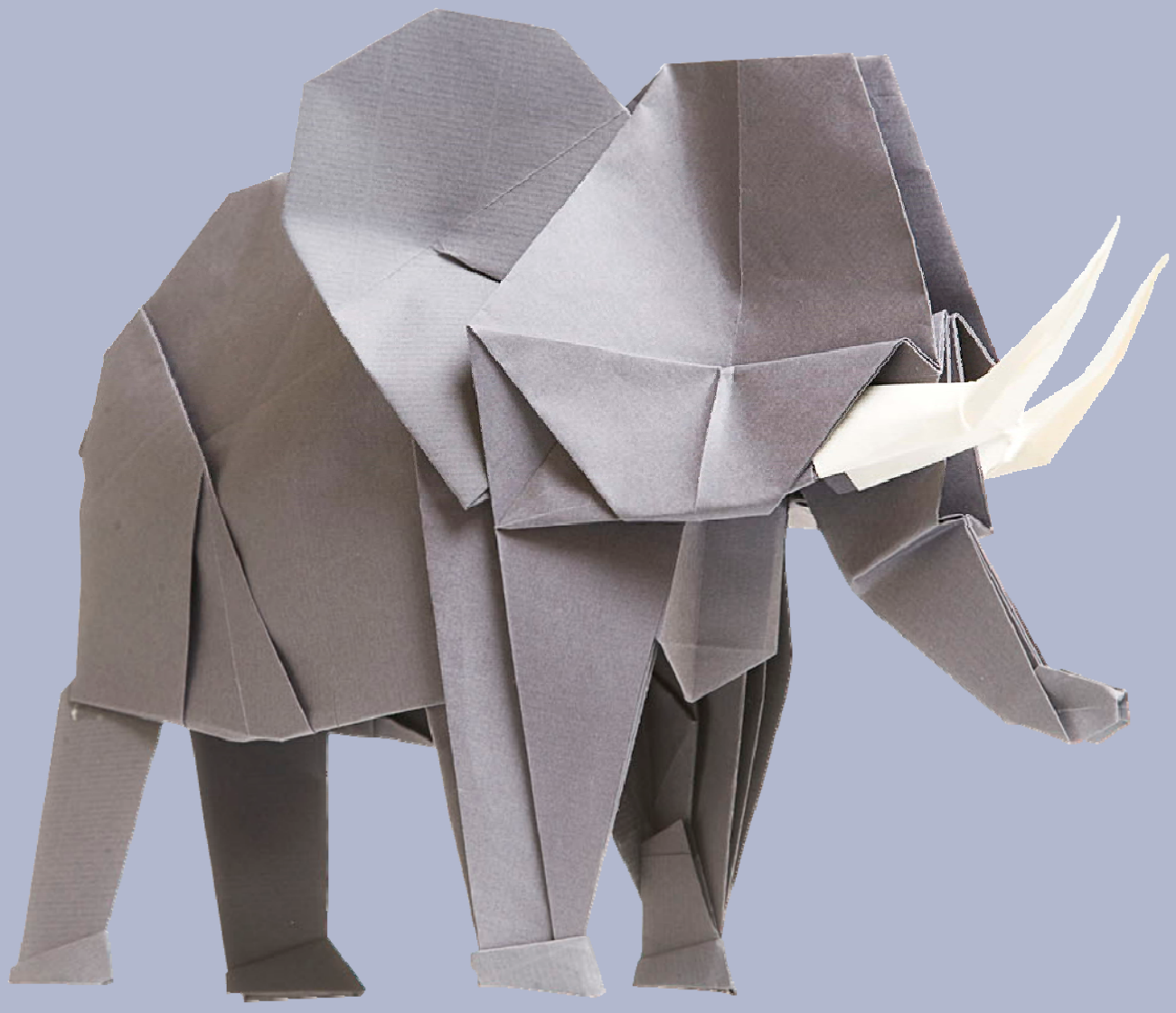
edexcel

Getting Started Guide



GCSE (9-1) Psychology

Pearson Edexcel Level 1/Level 2 GCSE (9-1) in Psychology (1PS0)

Pearson

Getting Started: GCSE Psychology 2017

Contents

1. Introduction

1.1 Research and key principles

Our new GCSE specification is designed to appeal to students with a range of topics that will engage their interest while fulfilling the science-based criteria for this new generation of GCSEs, as required by Ofqual. Our new specification is designed to support a range of student interests and learning styles, as well as a variety of aspirations. The course stands alone and will provide an interesting and worthwhile introduction to psychology. For those who decide to take the subject further, it provides a sound foundation for future study.

The specification was developed in consultation with the teaching community, higher education institutions, learned societies and subject associations. It also incorporates the GCSE reforms brought in under the guidance of Ofqual. Pearson Edexcel has retained the choice in the optional topics so that teachers and students can select the topics they find most appealing.

We know that one of the strengths of our specifications is the way that practical work is integrated into the material, allowing students to better understand the close relationship between the theories and studies they encounter. We are also aware that the use of practical work is fundamental to a good understanding of methodology. To this end, we have identified for teachers those studies within the specification that are suited to undertaking as practicals with their students. Such practicals will not be directly assessed in the course, rather they are strongly recommended as a vehicle for teaching skills to your students.

The qualification is designed to support students in the development of skills as they progress through the course. The following skills are deemed key for successful progression in the subject and have been carefully integrated into the specification to support this aim:

- the application of psychological concepts and theories to a range of contexts
- an holistic understanding of psychology
- the application of appropriate mathematical skills relevant to psychology
- a sound understanding of the research methods used by psychologists to understand behaviour
- the application of theory to real-world context.

The 2017 GCSE specification has been developed with the following principles at its core:

- **Clear specification:** The specification is designed so the information that students need to know is made explicit.
- **Progression:** There is a logical progression ensuring that students can build on their knowledge as they engage with the course.
- **Contemporary content:** There is a strong focus on modern psychology, while acknowledging and building on the firm foundations of earlier work.
- **Skills development:** The specification has a strong focus on developing research skills. Students will learn about and be encouraged to try out the main research methods used within psychology. They will discover how researchers utilise and interpret data and learn how to apply these skills themselves.
- **Analytical skills:** There is a strong emphasis on the development of critical thinking, evaluation and application skills. Students will be encouraged to analyse, make judgements and develop reasoned arguments, as well as to develop essay writing skills.

- **Clear assessment:** Assessments are designed using clearly defined command words that will remain consistent across assessments.
- **Clear mark schemes:** Mark schemes provide a clear connection between the skills needed to obtain marks and the questions asked. Teachers and markers will be able to see how the quality of work is assessed.
- **Coherent development:** Within the course, there is a progression in the development of understanding through the five compulsory topics. Each topic follows the same structure so that students and their teachers have a familiar pattern that they can build on as they progress through the course.
- **Choice:** There is a genuine choice between the optional topics. Uniquely the specification includes all five options permitted by Ofqual so that centres can select the two topics they consider the best match for their students and expertise.

1.2 Support for the new specification

This *Getting Started* guide provides an overview of the new GCSE specification. Its aim is to help teachers get to grips with the changes to both content and assessment. It also helps to explain what the changes mean for both teachers and their students. Additional support materials will be provided to assist in implementing the new specification.

- **Planning:** In addition to the relevant section in this guide there is a *Course Planner* that considers different ways of organising the course. A *Scheme of Work* gives more detailed information on how the specification may be developed. A *Mapping Document* shows comparisons between the 2009 specification and the new specification, as well as between this specification and those offered by the other examination boards.
- **Teaching and learning:** To support delivery of this new specification, suggested lists of resources, a student guide and other materials will be provided.
- **Understanding the standard:** Examples of student work with examiner commentaries for the sample assessment materials will be provided.
- **Tracking student progress:** The ResultsPlus service provides detailed analysis of students' examination performance. The service allows teachers to identify areas of both strength and weakness so that they can identify which skills and topics will benefit most from further study. Mocks Analysis provides analysis of past papers that can be used to set mock examinations in centres.
- **Component guides:** Our component guides are written to give information about content changes, suggestions about how to deliver material, details of resources that teachers may find useful and references. The aim is to provide a bank of resources to support teaching.

All of these materials will be available on the GCSE pages of the Pearson Edexcel website: https://qualifications.pearson.com/en/qualifications/edexcel-gcses/psychology-2017.html

2. What's changed?

2.1 Changes to the GCSE specification

From September 2017, GCSE Psychology must meet the criteria stipulated by Ofqual in their documents *GCSE (9 to 1) Qualification Level Conditions and Requirements* and *GCE Subject Level Conditions and Requirements for Psychology* published in 2014. Full details are available on the government website at: https://www.gov.uk/government/publications/gcse-psychology

Under these changes, there are core areas that must be covered as listed below. In addition, the specifications must include a certain number of theories and studies related to each topic.

Specifications must require students to study the five core areas of psychology as identified in paragraph 10, and psychological ideas, processes, techniques and procedures, through:

- the five compulsory topics: development; memory; psychological problems; the brain and neuropsychology; and social influence
- two optional topics from the following: criminal psychology; the self; perception; sleep and dreaming; or language, thought and communication
- research methods.

For each topic area – excluding social influence and the brain and neuropsychology – specifications must require students to study and critically evaluate theories or explanations, including the key features of each theory or explanation, in the context of the specific topic and area of psychology.

For topics in which theories or explanations are required, the theories or explanations are listed in the content below. For each of these topics – apart from development – two theories or explanations are required. For development, three theories are required.

For all topics, including social influence and the brain and neuropsychology, two studies related to each topic are also required. The studies are not listed in the content below and should be set out in specifications.

The compulsory topics are defined in the government guidance as follows:

- biological – an understanding of biological concepts within psychology, including neuroscience and genetics as contributors to behaviour
- cognitive – an understanding of thought, information and mental processing as contributors to behaviour
- social – an understanding of the social area of psychology, the impact of social and environmental factors on behaviour and the influence of groups
- developmental – an understanding of how individuals change throughout their lives, with a particular focus on childhood and how both nature and nurture can affect individuals
- individual differences – an understanding of the complex nature of human behaviour and experiences, and why and how people are different.

The new government guidelines also specify both skills and those areas that give an overview of psychology. These requirements have been built into our specification.

Specifications must require students to demonstrate their knowledge and understanding of:

- debates within psychology, including 'reductionism/holism' and 'nature/nurture'
- how psychological knowledge and ideas change over time and how these inform our understanding of behaviour
- the contribution of psychology to an understanding of individual, social and cultural diversity
- the interrelationships between the core areas of psychology
- how the studies for topics relate to the associated theory
- research methods as outlined in the content below.

The government guidance also specifies content for both the compulsory and optional topics, therefore there are only minor differences in the basic content of all of the specifications. The greatest change in the new GCSE Psychology, as with the A Level specification, is the material relating to the mathematics content of the specifications. The decision to position psychology as a science subject and the determination by the government that all sciences have a firm foundation of practical mathematics means that this is now part of a common core. The material on research methods is in line with previous specifications at all levels, with a requirement to understand the various aspects of different methods, designs, sampling methods and procedures.

The specification demands on the handling and interpretation of data are, as stated already, indicative of the decision to place psychology within the sciences. Therefore this content is a compulsory component for all GCSE Psychology specifications.

In order to be able to develop their skills, knowledge and understanding in psychology, students need to have been taught, and demonstrate their competence, to select and apply the following areas of mathematics relevant to research methods in psychology.

Arithmetic and numerical computation:

- recognise and use expressions in decimal and standard form
- use ratios, fractions and percentages
- estimate results.

Handling data:

- use an appropriate number of significant figures
- find arithmetic means
- construct and interpret frequency tables and diagrams, bar charts and histograms
- understand the principles of sampling as applied to scientific data
- understand the terms mean, median and mode
- use a scatter diagram to identify a correlation between two variables
- know the characteristics of normal distributions
- understand range as a measure of dispersion
- understand the differences between qualitative and quantitative data
- understand the difference between primary and secondary data
- translate information between graphical and numerical forms
- plot two variables from experimental or other data and interpret graphs.

All mathematical content must be assessed within the lifetime of the specification.

2.2 Changes to assessment objectives

The assessment objectives for psychology have been revised so that they better match the other sciences. The skills required for each assessment objective are clearly set out and common across both the GCSE and A Level specifications. The weightings at GCSE for each skill are shown in the table below and are common across all awarding organisations.

Students must:		% in GCSE
AO1	Demonstrate knowledge and understanding of psychological ideas, processes and procedures	35%
AO2	Apply knowledge and understanding of psychological ideas, processes and procedures	35%
AO3	Analyse and evaluate psychological information, ideas, processes and procedures to make judgements and draw conclusions	30%
	Total	100%

2.3 Changes to Pearson Edexcel GCSE Psychology specification

In the 2017 GCSE specification, psychology students are introduced to five core foundations of modern psychology. These core topics serve to introduce students to key areas of psychology that are relevant to the modern world. A mix of classic and contemporary studies is used to exemplify why these topics are of such importance in today's world. Wherever possible the studies are different to those specified in the A level specification to avoid repetition and encourage engagement throughout both courses. Studies that lend themselves to replication in the classroom are clearly indicated. This means that teachers can undertake research with their students, grounding the understanding of research methods in practice and providing real and relevant data that will enable students to better understand the mathematical demands of the new course. As in the 2008 specification, topics are used as a means of introducing debates that have a synoptic element. As stated, the design of the specification means that each topic has a consistent style and structure so that both teachers and students can feel comfortable with the way the specification is constructed as progress is made through the course.

Changes have been made to the specification content and the assessments to ensure that the revised subject content and assessment requirements are met, and to bring the specification up to date.

2.4 Specification overview

The GCSE Psychology specification is divided into five core areas that all students must study. These are: development; memory; psychological problems; the brain and neuropsychology; and social influence. These are assessed in the Paper 1 assessment. In each area, there are specific theories that must be covered as well as two studies and a relevant issue or debate.

Students are also required to learn about two of the optional topics, of which there are five to choose from. These are: criminal psychology; the self; perception; sleep and dreaming; and language, thought and communication. These optional topics have a similar structure to the core topics as they contain theories and two associated studies, however, they do not include any issues or debates.

In addition to the subject-specific content, students will also learn about research methods, relevant mathematical analysis and interpretation. The optional topics and research methods are assessed in Paper 2.

Summary of the material covered in Paper 1

Paper 1 (Paper code: 1PS0/01)				
Development	**Memory**	**Psychological problems**	**The brain and neuropsychology**	**Social influence**
Early brain development Piaget Dweck Willingham	Bartlett Multi-store Model of Memory Amnesia	Genetic explanations Psychological explanations CBT as therapy	The brain Role of the CNS Effects of neurological damage	Bystander effect Obedience Conformity Crowds
Studies: • Piaget and Inhelder (1956) • Gunderson *et al.* (2013)	Studies: • Bartlett (1932) • Peterson and Peterson (1959)	Studies: • Caspi *et al.* (2003) • Young *et al.* (2007)	Studies: • Damasio *et al.* (1994) • Sperry (1968)	Studies: • Haney, Banks and Zimbardo (1973) • Piliavin *et al.* (1969)
Issues and debates: moral development	Issues and debates: reductionism *vs* holism	Issues and debates: nature *vs* nurture	Issues and debates: historical perspectives	Issues and debates: social and cultural influences

Summary of the material covered in Paper 2

Paper 2 (Paper code: 1PS0/02)			
Research methods	**Optional topics (choice of two from five)**		
Designing psychological research: • features, strengths and weaknesses of experiments, interviews, questionnaires, case studies and correlations • features, strengths and weaknesses of research designs • ethical issues.	**Criminal psychology**	**The self**	**Perception**
	Learning to explain criminality Biology to explain criminality Punishment Treatment	Identity and theories of self Individual differences and their effects on self Nomothetic approaches to personality	Depth perception Gibson Gregory Perceptual set
	Studies: • Bandura, Ross and Ross (1961) • Charlton *et al.* (2000)	Studies: • Vohs and Schooler (2008) • Van Houtte and Jarvis (1995)	Studies: • Haber and Levin (2001) • Carmichael *et al.* (1932)

Data analysis: ● undertake arithmetic calculations ● measures of central tendency and dispersion ● ratios, percentages and fractions ● normal distribution ● use of data to create graphical representations and interpret graphs.	**Sleep and dreaming**	**Language, thought and communication**	
	Nature of sleep Factors affecting sleep Freudian theory of dreaming Hobson and McCarley's theory of dreaming	Language and thought Language determinism Criteria for language Non-verbal communication	
	Studies: ● Freud (1909) Little Hans ● Siffre (1975)	Studies: ● Yuki *et al.* (2007) ● Boroditsky (2001)	

2.5 Constructing a coherent course

The 2017 specification reflects the views of many from higher education, schools and colleges, as well as government advisors, on what should be included in an introductory course in psychology. The core topics are central to the study of psychology; the underpinning that creates a firm foundation from which to expand and develop understanding of more detailed and diverse aspects of the subject. The optional topics allow for a degree of specialism and with all five topics available to choose from, teachers and their students can select the two that best suit their requirements and interests.

The course has been designed so that it can lay the foundation for further study at A or AS Level, but it is also fit to stand alone as an introduction to the subject for those who will not take it further. Psychology teachers are often asked by potential students and their parents – why study psychology? In this specification, there is ample evidence of why psychology sits so well alongside other subjects. With the new emphasis on the science and mathematics elements, this specification is a sound foundation for anyone who is drawn towards sciences for further study. The specification also retains the development of reasoned argument and clear expression skills required for those who choose a more arts-based direction for their later studies. In addition, the subject matter covered in the course affords an insight into some of the key areas of psychology, which will enhance understanding of why humans behave in the way that they do.

2.6 Changes to specification content

There are several changes to the content from the 2009 GCSE specification. In part this is to reflect the requirements put in place by the Department of Education, however, the desire to refresh the specification and keep it up to date has also been important in the decisions made. One important feature that has been retained is the way that students will learn about alternative explanations for a psychological concept. This will enable them to understand how such alternatives can be contrasted and also complement one another, thus enhancing their understanding and ability to evaluate effectively.

The material on perception, sleep and dreaming covered in Unit 1 of the 2009 specification is now covered in optional topics 8 and 9. Much of the methodology from the 2009 specification has been retained, although with the increased

emphasis on the mathematical requirements this is now more detailed. There are elements within the compulsory topics (1 through to 5) that featured in some of the 2009 optional topics in Unit 2 but many of these are new, reflecting the government's desire to provide a rigorous core of well-founded theory and practice.

2.7 What's changed?

The table below provides an overview of the main changes between the content of the 2009 specification and the content of the new 2017 specification. Material that is new to the 2017 specification has been shaded. More detailed mapping can be found in the component guides and the psychology pages of the Pearson Edexcel website.

	Content in 2017	Content in 2009
Development *Content*	Early brain development Piaget's stages of development Piaget's theory of cognitive development Dweck's mindset theory Willingham's learning theory	
Studies	Piaget and Inhelder (1956) Gunderson *et al.* (2013)	
Issues and debates	Moral development	
Memory *Content*	[This material is **mostly** new] Memory and information processing Long-term and short-term memory Retrograde and anterograde amnesia Bartlett's Theory of Reconstructive Memory Atkinson and Shiffrin's Multi-store Model of Memory	Topic A Schemas affecting eyewitness testimony
Studies	Bartlett (1932) Peterson and Peterson (1959)	Topic A Bartlett
Issues and debates	The reductionism/holism debate	
Psychological problems *Content*	Unipolar depression and addiction The International Classification of Diseases (ICD) system Incidence, social and individual effects of depression/addiction Genetic explanations for depression/addiction Cognitive theory as an explanation for depression	

	Learning theory as an explanation for addiction Cognitive behavioural therapy (CBT)	
Studies	Caspi *et al*. (2003) Young (2007)	
Issues and debates	The nature/nurture debate	Topics C and E Nature/nurture related to aggression/criminality
The brain and neuropsychology *Content*	[This material is **mostly** new] Structure and function of the brain Brain lateralisation and implications for gender differences Central nervous system (CNS), synapses and neurotransmitters Prosopagnosia and visual agnosia. Effects of pre-frontal cortex damage	Topic B Synapses and neurotransmitters
Studies	Damasio *et al.* (1994) Sperry (1968)	
Issues and debates	Changes in understanding of the brain over time	
Social *Content*	Factors affecting: ● bystander behaviour ● conformity ● obedience ● crowd behaviour Preventing blind obedience	
Studies	Piliavin *et al.* (1969) Haney, Banks and Zimbardo (1973)	
Issues and debates	Effects of social and cultural issues in society	
Criminal psychology *Content*	[This material is **mostly** new] Explanations for criminality including: ● Operant Conditioning ● Social Learning Theory ● Eysenck's personality theory	Topic C Operant Conditioning Social Learning Theory

	Effects of punishments on recidivism Token economy and anger management as treatments	
Studies	Bandura, Ross and Ross (1961) Charlton *et al.* (2000)	Topic C Charlton *et al.*
The self *Content*	Self-concept: ● Lewis ● Rogers Erikson's eight stages of identity development Baumeister's belief in free will Humanistic approach: ● Rogers ● Maslow Influence of internal and external factors on the self Personality, including measuring and trait theory: ● Allport ● Cattell	
Studies	Vohs and Schooler (2008) Van Houtte and Jarvis (1995)	
Perception *Content*	[**Only** Gibson's theory and perceptual set are new] Monocular and binocular cues: ● cues ● constancies ● illusions Gibson's Direct Theory of Perception Gregory's Constructivist Theory of Perception Perceptual set	Topic 1 Monocular and binocular cues: ● cues ● constancies ● illusions Gregory's Constructivist Theory of Perception
Studies	Haber and Levin (2001) Carmichael *et al.* (1932)	Carmichael *et al.*
Sleep and dreaming *Content*	[**Only** function, form and benefits of sleep, external and internal influences, and sleep disorders are new] Function, form and benefits of sleep	Topic B Freud's theory of dreaming Hobson and McCarley's Activation Synthesis

	External and internal influences on sleep Sleep disorders: ● insomnia ● narcolepsy Freud's theory of dreaming Hobson and McCarley's Activation Synthesis Theory	Theory
Studies	Freud (1909) Little Hans Siffre (1975)	Topic B Freud (Little Hans)
Language, thought and communication *Content*	Relationship between language and thought: ● Piaget ● Vygotsky Language and world views: ● relativism ● determinism Communication versus language Non-verbal communication (NVC) Darwinian views on NVC	
Studies	Yuki *et al.* (2007) Boroditsky (2001)	
Designing psychological research	[**Only** sampling, field and natural experiments, interviews, correlations and observations are new] Independent, dependent and extraneous variables Control of extraneous variables Hypotheses Sampling Experimental and research designs: ● independent measures ● repeated measures ● matched pairs Ethical issues Research methods: ● laboratory experiments ● field experiments ● natural experiments	Topic A Independent, dependent and extraneous variables Control of extraneous variables Hypotheses Designs: ● independent groups ● repeated measures ● matched pairs Ethical issues Research methods: ● laboratory experiments Topic B Case studies Ethical issues Topic C

	● interviews ● questionnaires ● correlations ● case studies ● observations	Questionnaires
Data analysis	[**Undertaking** calculations, normal distribution, most graphs, primary and secondary data are new] Arithmetic and numerical calculations Measures of central tendency Range Normal distribution Constructing and interpreting: ● tables ● diagrams ● bar charts ● histograms ● scatter diagrams Primary and secondary data Qualitative and quantitative data	Topic A Measures of central tendency Range Bar charts Topic B Qualitative and quantitative data
Issues and debates	Use compulsory topic material to consider ethical issues	

2.8 Changes to assessment

The assessment structure for GCSE Psychology 2017 is outlined in the table below.

<table>
<tr>
<td rowspan="6">Paper 1
The paper consists of six sections. Students must answer all questions in each section.
There are sections on each of the five compulsory (core) topics plus one section focused on debates within psychology and requiring material to consider interrelationships between the core topics.
Some questions relating to research methods may be incorporated here.
Some questions will incorporate stimulus material.
The assessment is 1 hour and 45 minutes.
The assessment is out of 98 marks.
Weighting: 55% of final assessment.</td>
<td>Development: how did you develop?
This section will contain multiple-choice, short-open and open-response questions.</td>
</tr>
<tr>
<td>Memory: how does your memory work?
This section will contain multiple-choice, short-open and open-response questions.</td>
</tr>
<tr>
<td>Psychological problems: how would psychological problems affect you?
This section will contain multiple-choice, short-open and open-response questions.</td>
</tr>
<tr>
<td>The brain and neuropsychology: how does your brain affect you?
This section will contain multiple-choice, short-open and open-response questions.</td>
</tr>
<tr>
<td>Social influence: how do others affect you?
This section will contain multiple-choice, short-open and open-response questions.</td>
</tr>
<tr>
<td>Debates:
This section will contain two extended open-response questions that require a focus on debates within psychology and the interrelationships between the core areas of psychology.</td>
</tr>
<tr>
<td rowspan="2">Paper 2
The paper consists of six sections.
Students will answer Section A and then two sections on the optional topics they have studied.
The paper will include calculations, multiple-choice, short-open, open-response and extended-writing questions.
The paper will include questions that target mathematics at Key Stage 3. Calculators may be used in the examination.
The assessment is 1 hour and 20 minutes.
The assessment is out of 79 marks.
Weighting: 45% of final assessment.</td>
<td>Section A: Research methods – how do you carry out psychological research?
This section is compulsory and all questions need to be answered.
This section contains calculations, multiple-choice, short-open questions, as well as one 12-mark extended-response question. It may draw on material from the compulsory topics assessed in Paper 1.</td>
</tr>
<tr>
<td>Sections B to F
Candidates will be required to answer questions on two out of the five optional topics. Each section will have multiple-choice, short-open and open-response questions, as well as one extended-writing question. All questions within a section must be answered.</td>
</tr>
</table>

3. Planning

3.1 Planning and delivering the new GCSE

The new GCSE is designed to be assessed by two examinations at the end of the course. The course can be taught over one, two or three years, although it is expected that most centres will opt for a two-year programme of study. When planning the course, it will be necessary to ensure sufficient time is included for adequate revision. This will be more important with two- or three-year programmes.

In the study programme, research methods can be integrated with the topics or taught as a stand-alone section. However, if the research methods are taught alongside the topic material, a revision section must be included to allow the ideas to be brought together so that students understand the broader perspective. Conversely, if the research methods are taught as a discrete section, time will need to be allocated to ensure that students can contextualise the material in the topics studied.

3.2 Suggested resources

To support the teaching and learning of the new specification there are many resources available. There will be a range of materials available through the psychology page of the Pearson Edexcel website. These will be added to and updated regularly.

4. Assessment guidance

The two papers (Paper 1 and Paper 2) must be completed at the end of the course and in the same series of examinations. Students who wish to re-sit will need to re-take both examinations in the same, subsequent series.

4.1 Question types

A range of question types has been used in the GCSE assessments. The question types reflect the skills that students are required to demonstrate, as well as their knowledge and ability to use that knowledge appropriately.

The different question types are as follows:

1 multiple choice: usually 1, occasionally 2 marks

2 short open response: usually 1–4 marks

3 calculation: usually 1–4 marks

4 extended open response: 6–12 marks.

Multiple-choice questions will usually assess knowledge and understanding of psychological concepts (AO1), however, they may also assess knowledge of simple mathematical concepts. Short open-response questions will target knowledge and understanding of psychological concepts (AO1), as well as the ability to apply such concepts (AO2), make connections or show a logical chain of reasoning, thus demonstrating higher-order cognitive skills (AO3). Calculation questions will require the application of mathematical knowledge to subject-specific content. Any formulae required for the assessment will be provided and calculators may be used as appropriate. Extended open-response questions will assess across the assessment objectives.

4.2 Taxonomy words (command words)

Command word	Definition / meaning
Assess	Give careful consideration to all the factors or events that apply, and identify which are the most important or relevant. Make a judgement on the importance of something, and come to a conclusion where needed.
Calculate	Obtain a numerical answer, showing relevant working. If the answer has a unit, this must be included.
Compare	Looking for the similarities and differences of two (or more) things. This should not require the drawing of a conclusion. The answer must relate to both (or all) things mentioned in the question. The answer must include at least one similarity and one difference.
Complete	To fill in/write all the details asked for.
Define	To provide a definition of something.
Describe	To give an account of something. Statements in the response need to be developed as they are often linked but do not need to include a justification or reason.
Draw	To produce an output, either by freehand or using a ruler (e.g. graph).

Evaluate	Review information then bring it together to form a conclusion, drawing on evidence including strengths, weaknesses, alternative actions, relevant data or information. Come to a supported judgement of a subject's qualities and relation to its context.
Explain	An explanation that requires a justification/exemplification of a point. The answer must contain some element of reasoning/justification. This can include mathematical explanations.
Give, State, Name	Generally involves the recall of one or more pieces of information; when used in relation to a context, it is used to determine a candidate's grasp of the factual information presented.
Identify	Usually requires some key information to be selected from a given stimulus/resource.

Please refer to the Pearson Edexcel Level 1/Level 2 GCSE (9–1) in Psychology Sample Assessment Materials (SAMs) document for the application of these command verbs.

4.3 Mark schemes

Questions that carry less than eight marks will usually be marked point by point. Levels-based marking is used for questions worth eight or more marks. Levels-based marking shows a clear progression from one level to the next, demonstrating how increased knowledge and demonstration of competence in answering questions is credited.

Mark schemes have been written to demonstrate which skills are required, and at what standard, in order to achieve marks. The aim is to provide a clear framework for both teachers and examiners that will illustrate how each question type needs to be answered. The application of the new mark schemes will be demonstrated in exemplar materials showing student responses to some of the sample assessment questions. These will be available on the Pearson Edexcel website.

5. Research methods – how do you carry out psychological research?

Students are required to study all of this section and must be able to apply their knowledge and understanding to other topics across the course. Explicit assessment requiring demonstration of research methods skills will be made in Paper 2. Mathematical skills related to subject specific content will be assessed in Paper 2 as illustrated in the Sample Assessment Materials.

5.1 Designing psychological research

In addition to being able to explain how different research methods are conducted, students may be expected to evaluate a particular type of psychological research in Paper 2. Students need to know all of the terms in this section and be able to apply this knowledge appropriately in the context of particular questions. In addition improvements to or recognition of flaws in a particular study can be asked in any section of both Paper 1 and Paper 2.

5.2 Data analysis

Students are required to demonstrate competence in the skills outlined in this section of the specification. It is important that these skills can be effectively applied to psychological concepts and situations so that students develop a holistic understanding of the application of data analysis to psychology. Students will be familiar with almost all of the terms from the study of GCSE Mathematics, however, it is important that they are able to apply these terms to relevant areas within psychology.

The following material is adapted from *Appendix A – mathematical requirements* of the Department of Education's publication *Psychology GCSE subject content*, published December 2015 and available to download from the government website.

1 Arithmetic and numerical computation:
   - a recognise and use expressions in decimal and standard form
   - b use ratios, fractions and percentages
   - c estimate results.

2 Handling data:
   - a use an appropriate number of significant figures
   - b find arithmetic means
   - c construct and interpret frequency tables and diagrams, bar charts and histograms
   - d understand the principles of sampling as applied to scientific data
   - e understand the terms mean, median and mode
   - f use a scatter diagram to identify a correlation between two variables
   - g know the characteristics of normal distributions
   - h understand range as a measure of dispersion
   - i understand the differences between qualitative and quantitative data
   - j understand the difference between primary and secondary data
   - k translate information between graphical and numerical forms
   - l plot two variables from experimental or other data and interpret graphs.

Note: All mathematical content must be assessed within the lifetime of the specification.

The following table identifies where the mathematical skills can be introduced or developed when delivering the subject content of the specification. It is usually best to introduce them when covering the studies as these illustrate the concepts with relevant, real data.

Mathematical skill	Examples of where this skill can be taught
a recognise and use expressions in decimal and standard form	1.2.2, 2.2.2, 3.2.1, 5.2.1, 6.2.1, 7.2.1, 10.2.1, 10.2.2
b use rations, fractions and percentages	1.2.2, 3.2.1, 5.2.1, 6.2.1, 7.2.1, 8.2.2, 10.2.2
c estimate results	3.2.2, 5.2.2, 6.2.2, 8.2.1, 10.2.1
Handling data	
a use an appropriate number of significant figures	2.2.2, 3.2.1, 5.2.1, 6.2.1, 7.2.1, 10.2.1
b find arithmetic means	2.2.2, 5.2.1, 6.2.1, 7.2.1, 10.2.1, 10.2.2
c construct and interpret frequency tables and diagrams, bar charts and histograms	2.2.2, 6.2.1, 7.2.1, 8.2.1, 10.2.2
d understand the principles of sampling as applied to scientific data	1.2.1, 2.2.2, 5.2.1, 5.2.2, 6.2.2, 7.2.1, 10.2.1
e understand the terms mean, median and mode	1.2.2, 2.2.2, 3.2.1, 5.2.1, 6.2.1, 6.2.2, 7.2.1, 8.2.1
f use a scatter diagram to identify a correlation between two variables	3.2.1, 7.2.2
g know the characteristics of normal distributions	3.1.1, 5.2.1, 7.1.5, 7.1.6
h understand range as a measure of dispersion	1.2.2, 5.2.1
i understand the differences between qualitative and quantitative data	1.2.1, 2.2.1, 4.2.2, 5.2.1, 5.2.2, 6.2.2, 8.2.2, 9.2.1, 9.2.2
j understand the difference between primary and secondary data	3.1.2, 4.2.1, 9.2.1
k translate information between graphical and numerical forms	2.2.2, 3.2.1, 5.2.1, 6.2.1, 7.2.1
l plot two variables from experimental or other data and interpret graphs	2.2.2, 5.2.1, 6.2.1, 7.2.1, 8.2.1

6. Issues and debates

The issues and debates are tied into the compulsory topics to ensure all students have covered the material and that they can be contextualised within a topic. These will be assessed in the longer answer questions in Paper 1. The table below provides examples of how each issue or debate can be addressed.

Issue/debate	What the specification requires	How this can be addressed
Moral development	Understand morality issues in psychology and the individual including: Know the terms morality and moral(s) Pre-conventional, conventional and post-conventional stages of morality Use content, theories and research drawn from cognitive development to explain development of morality	Tie in with cognitive development, in particular Piaget's view of moral development and Kohlberg's theory.
Reductionism/holism debate	Know the terms reductionism and holism Explain the reductionist/holistic debate using memory	Use computer analogy and the Multi-store Model of Memory as examples of reductionist explanations of memory. Use Bartlett's schema theory of memory as a holistic approach to understanding memory.
Nature/nurture debate	Know the terms nature and nurture Explain nature/nurture issues using mental health issues	Explore biological explanations as examples of 'nature' and psychological explanations as examples of 'nurture' to show contrasting views of the causes of mental disorders.
Changes in understanding of the brain over time	Explain how the passage of time and new research has changed our understanding of the way the brain functions	Show how as techniques, equipment and understanding have changed over time there has been a major shift in the way that research has been undertaken and the knowledge that has been gained; e.g. from Broca, Wernicke, and the case study of Phineas Gage (19th century), through Lashley's theory of equipotentiality (early 20th Century) up to fMRI scans and current research.

Effects of social and cultural issues in society	Know the terms society, social issues and culture Show how research into social influence can be used to explain social and cultural issues	Use studies to show similarity in results for obedience cross-culturally; e.g. Meeus and Raaijmakers (1986). Consider issues influencing conformity; e.g. Levett-Jones and Lathlean (2009), Bond and Smith (1996). Consider bystander behaviour variability across cultures and social groups; e.g. Pozzoli, Ang and Gini (2012).
Ethical issues	Know the term ethical issues Use material from the five compulsory topics to explain issues	Examples of ethical issues from the topics include the following: ● **developmental:** e.g. working with children, issues of consent and safeguarding ● **memory:** e.g. working with those with brain damage or impairment ● **psychological problems:** e.g. issues of social control, the right to withdraw from treatment ● **the brain and neuropsychology:** e.g. experiments on animals, studies on those with brain damage ● **social influence:** e.g. deception in social studies, distress caused by procedures such as Milgram's experiment.

7. Transferable skills

7.1 The need for transferable skills

In recent years, higher education institutions and employers have consistently emphasised the need for students to develop a range of transferable skills to enable them to respond with confidence to the demands of undergraduate study and the world of work.

The National Research Council's (NRC) skills framework emphasises three key skills domains: cognitive skills, interpersonal skills and intrapersonal skills. This section shows how these skills can be encouraged and developed during the delivery of this course.

7.2 Cognitive skills

- Non-routine problem solving – expert thinking, metacognition, creativity.
- Systems thinking – decision making and reasoning skills.
- Critical thinking – definitions of critical thinking are broad and usually involve general understanding of issues.
- Cognitive skills, such as analysing, synthesising and reasoning skills permeate all the specific skills areas providing a common foundation.
- ICT literacy – access, manage, integrate, evaluate, construct and communicate.

Cognitive skill	Assess in qualification	Encourage through teaching	Evidence to show this skill is being developed
Non-routine problem solving			
Expert thinking	✓	✓	Using data and/or stimulus material to draw conclusions and suggest strategies. Assessing or evaluating material derived from theories and studies.
Metacognition	✓		Reflecting on how effective a particular approach may be. Analysing own strategies for learning.
Creativity	✓	✓	Learning how to devise and implement own research projects, e.g. 'design a study'.
Systems thinking			
Systems thinking	✓	✓	Learning how to consider psychological ideas holistically. Developing the ability to draw ideas from a range of contexts and integrate them into a coherent whole: • e.g. developmental – drawing on alternative theories to understand development • e.g. psychological problems –

			considering competing explanations for mental illnesses and how treatment may throw light on these explanations • e.g. historical perspectives in psychology • e.g. ethical issues within psychology.
Decision making	✓		Learning how decisions within research methods have consequences for outcomes, e.g. the manipulation of variables in experiments, the choice of open or closed questions in a survey.
Reasoning skills	✓	✓	Considering alternative perspectives on an issue to develop higher-order reasoning, abstract thinking and a wider understanding of the issues.
Critical thinking			
Critical thinking	✓	✓	Developing critical understanding of issues. Using knowledge of studies to understand flaws in design and/or conclusions drawn. Note: there is no such thing as a perfect study, therefore any study can be used to identify flaws, whether large or small, and explore how they can lead to poor-quality conclusions.
ICT literacy			
Assess	✓	✓	Learning how to discover and use a variety of sources of information, e.g. online journals, articles and opinion pieces. Collecting and collating secondary data for analysis in class.
Manage	✓	✓	Exercises that show how to classify evidence, e.g. data types and analysis, types of evidence such as qualitative and quantitative. Managing ethical provisions. e.g. ensuring the right to withdraw, confidentiality, and ensuring that appropriate procedures are in place.
Integrate	✓	✓	Learning how to bring together concepts and ideas from disparate sources to enable a comparison, summary or evaluation to be made.

Evaluate	✓	✓	Being able to understand and explain the strengths and weaknesses of a theory, study or concept within the context of the specification.
Construct	✓	✓	Learning how to synthesise and present data in a variety of coherent forms including spreadsheets, summary tables and graphs.
Communicate	✓	✓	Communicating ideas through both spoken and written formats. Presentations in class, class debates, essays and reports all contribute to the development of effective communication skills.

7.3 Interpersonal skills

- Communication – active listening, oral communication, written communication, assertive communication and non-verbal communication.
- Relationship-building skills – teamwork, trust, intercultural sensitivity, service orientation, self-presentation, social influence, conflict resolution and negotiation.
- Collaborative problem solving – establishing and maintaining shared understanding, taking appropriate action, establishing and maintaining team organisation.

Interpersonal skill	Assess in qualification	Encourage through teaching	Evidence to show this skill is being developed
Communication			
Active listening		✓	Listening to material then making brief notes/answering questions/developing points.
Oral communication		✓	Use small group discussions to encourage less confident communicators. Individual students research a small area and then communicate their knowledge to the rest of the group.
Written communication	✓	✓	The quality of written communication is assessed in the extended response questions in the examinations. These skills can be developed and practiced through practice questions and homework.
Assertive communication		✓	Presenting facts and opinions, showing willingness to ask

			questions and seeking clarification in lessons. Developing and sustaining arguments in discussion and debates.
Non-verbal communication		✓	Using appropriate body language, gestures and intonation when in class. Make students aware of how appropriate non-verbal communication can support verbal communication.
Relationship-building skills			
Teamwork		✓	Students should undertake tasks such as group investigations, data collection and researching a topic in groups, in order to support each other and develop teamwork skills.
Trust		✓	Emphasise the importance of being a reliable and trustworthy researcher who will effectively fulfil the obligations of the British Psychological Society's ethical guidelines.
Intercultural sensitivity		✓	Demonstrating awareness of how cultural and ethical issues affect people and the importance of these individual differences.
Service orientation		✓	Encourage self-awareness in students, including the impression others gain of them.
Self-presentation		✓	Allow students to develop a sense of how the way they present themselves and their arguments can influence how they are perceived by others.
Social influence		✓	Awareness of how the material in Topic 5 (social influence) impinges on them in the real world.
Conflict resolution and negotiation		✓	Learning how to develop an argument and support opposing views, including ones they may not necessarily believe in, in order to understand why different views should be considered credible.
Collaborative problem solving			
Establishing and		✓	Working with others to undertake psychological

maintaining shared understanding			investigations and data collection to aid further understanding.
Taking appropriate action		✓	Working with others to collate and analyse data collected.
Establishing and maintaining team organisation		✓	Working with others towards a common goal.

7.4 Intrapersonal skills

- Adaptability – ability and willingness to cope with the uncertain, handling work stress, adapting to different personalities, communication styles and cultures.
- Self-management and self-development – ability to work remotely in virtual teams, working autonomously, being self-motivating and self-monitoring, being willing and able to acquire new information and skills related to work.

Intrapersonal skill	Assess in qualification	Encourage through teaching	Evidence to show is being developed
Adaptability			
Ability and willingness to cope with the uncertain		✓	Demonstrating an ability to cope when, e.g., participant circumstances change so that they are unable to continue in the piece of research.
Handling work stress		✓	Learning to manage time and work demands effectively and efficiently.
Adapting to different personalities, communication styles and cultures		✓	Being able to work in new/different groupings on a project and not just with friends. Respecting others and what they bring to a situation.
Self-management and self-development			
Ability to work remotely in virtual teams		✓	Developing the ability to work unaided. Students should develop the ability to find resources and utilise them effectively.
Working autonomously		✓	Once they have the ability to identify and use independently sourced information, students should be encouraged to be selective in what they use rather than being uncritical.

Being self-motivating and self-monitoring		✓	Learning to set appropriate goals that are challenging but achievable. Being able to assess their progress towards these goals.
Being willing and able to acquire new information and skills related to work		✓	Learning to embrace the opportunities that wider reading and research offer in order to develop a broader understanding of the subject area they are studying.