CAMBRIDGE
International Education

Syllabus

Cambridge IGCSE™
Psychology 0266

Use this syllabus for exams in 2027, 2028 and 2029.
Exams are available in the June and November series.

Version 1

For the purposes of screen readers, any mention in this document of Cambridge IGCSE refers to Cambridge International General Certificate of Secondary Education.

Cambridge Pathway

Why choose Cambridge?

We work with schools worldwide to build an education that shapes knowledge, understanding and skills. Together, we give learners the confidence they need to thrive and make a positive impact in a changing world.

As part of the University of Cambridge, we offer a globally trusted and flexible framework for education from age 3 to 19, informed by research, experience, and listening to educators.

With recognised qualifications, high-quality resources, comprehensive support and valuable insights, we help schools prepare every student for the opportunities and challenges ahead.

Qualifications that are recognised and valued worldwide

From the world's top-ranked universities to local higher education institutions, Cambridge qualifications open doors to a world of opportunities.

Setting a global standard

With over 160 years of experience in delivering fair, valid and reliable assessments to students worldwide, we offer a global, recognised performance standard for international education.

Your path, your way

Schools can adapt our curriculum, high-quality teaching and learning resources and flexible assessments to their local context. Our aligned offer helps Cambridge schools support every learner to reach their potential and thrive.

Learning with lasting impact

Cambridge learners build subject knowledge and conceptual understanding, and develop a broad range of skills, learning habits and attributes to help make them ready for the world.

Improving learning outcomes through data-led insight and action

Our trusted baseline and diagnostic assessments, together with our insights and evaluation service, help schools turn data into knowledge and actionable insights, to inform teaching decisions and improve learner outcomes.

Bringing together a community of experts

We bring together the collective knowledge of experts and our diverse community of educators worldwide, supporting them to learn from one another and share ideas and information.

Tackling the climate crisis together

We believe that education is key to tackling the climate crisis. Together with Cambridge schools, we can empower young people with the skills and knowledge to take action on climate change, helping them be ready for the world.

School feedback: 'We think the Cambridge curriculum is superb preparation for university.'

Feedback from: Christoph Guttentag, Dean of Undergraduate Admissions, Duke University, USA

Contents

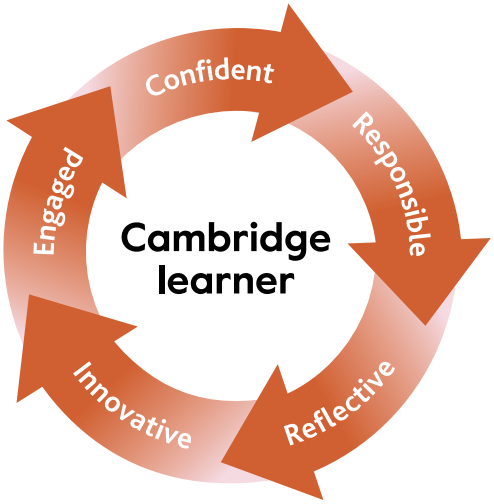
1 Why choose this syllabus?

Key benefits

Cambridge IGCSE is the world's most popular international qualification for 14 to 16 year olds, although it can be taken by students at any age. Taught by over 5000 schools in 150 countries, it is tried, tested and trusted.

Students can choose from 70 subjects in any combination, including 30 languages.

Our programmes promote a thorough knowledge and understanding of a subject and help to develop the skills learners need for their next steps in education or employment.



Cambridge IGCSE Psychology encourages learners to start thinking like a psychologist. The syllabus presents opportunities to explore the key methods, theories, explanations and concepts that provide the foundations for the study of psychology. Learners are supported in developing key transferable skills such as the interpretation of evidence and the application of knowledge, while studying a range of stimulating topics relevant to contemporary international learners.

Our approach in Cambridge IGCSE Psychology encourages learners to be:

confident, developing the ability to communicate psychological explanations, concepts and findings to others

responsible, acknowledging the social, cultural and ethical context of research in psychology

reflective, about their own and the mental processes and behaviours of others

innovative, developing an ability to think psychologically to understand problems and respond to different situations

engaged, developing a curiosity about human thinking and behaviour, including how research findings can be used to understand the world around them.

School feedback: 'The strength of Cambridge IGCSE qualifications is internationally recognised and has provided an international pathway for our students to continue their studies around the world.'

Feedback from: Gary Tan, Head of Schools and CEO, Raffles Group of Schools, Indonesia

Qualifications that are recognised and valued worldwide

Cambridge qualifications prepare and equip learners with the skills they need to thrive at university and beyond. The world's best higher education institutions recognise our qualifications and value the critical thinking skills, independent research abilities and deep subject knowledge that Cambridge learners bring.

We continually work with universities and colleges in every part of the world to ensure that they understand and accept our qualifications. Cambridge IGCSE provides a springboard to the Cambridge Advanced stage, as well as other post-16 routes. The combination of knowledge and skills in Cambridge IGCSE Psychology gives learners a solid foundation for further study. Candidates who achieve grades A* to C are well prepared to follow a wide range of courses including Cambridge International AS & A Level Psychology.

Many universities require a combination of Cambridge International AS & A Levels and Cambridge IGCSEs or equivalent to meet their entry requirements.

UK ENIC, the national agency in the UK for the recognition and comparison of international qualifications and skills, has carried out an independent benchmarking study of Cambridge IGCSE and found it to be comparable to the standard of the GCSE in the UK. This means students can be confident that their Cambridge IGCSE qualifications are accepted as equivalent to UK GCSEs by leading universities worldwide.

Learn more at **www.cambridgeinternational.org/recognition**

School feedback: 'Cambridge IGCSE is one of the most sought-after and recognised qualifications in the world. It is very popular in Egypt because it provides the perfect preparation for success at advanced level programmes.'

Feedback from: Managing Director of British School of Egypt BSE

Supporting teachers

We believe education works best when teaching and learning are closely aligned to the curriculum, resources and assessment. Our high-quality teaching support helps to maximise teaching time and enables teachers to engage learners of all backgrounds and abilities.

We aim to provide the following support for each Cambridge qualification:

- Syllabus
- Specimen question papers and mark schemes
- Specimen paper answers
- Schemes of Work
- Example candidate responses
- Past papers and mark schemes
- Principal examiner reports for teachers

These resources are available on the School Support Hub at **www.cambridgeinternational.org/support**, our secure online site for Cambridge teachers. Your exams officer can provide you with a login.

Additional teaching & learning resources are also available for many syllabuses and vary according to the nature of the subject and the structure of the assessment of each syllabus. These can include ready-built lesson materials, digital resources and multimedia for the classroom and homework, guidance on assessment and much more. Beyond the resources available on the Schools Support Hub, a wide range of endorsed textbooks and associated teaching and learning support are available from Cambridge at **www.cambridge.org/education** and from other publishers. Resources vary according to the nature of the subject and the structure of the assessment of each syllabus.

You can also contact our global Cambridge community or talk to a senior examiner on our discussion forums.

Sign up for email notifications about changes to syllabuses, including new and revised products and services, at **www.cambridgeinternational.org/syllabusupdates**

Professional development

Find the next step on your professional development journey.

- **Introduction courses** – An introduction to Cambridge programmes and qualifications. For teachers who are new to Cambridge programmes or new to a specific syllabus.
- **Focus on Teaching courses** – These are for teachers who want to explore a specific area of teaching and learning within a syllabus or programme.
- **Focus on Assessment courses** – These are for teachers who want to understand the assessment of a syllabus in greater depth.
- **Marking workshops** – These workshops help you become more familiar with what examiners are looking for, and provide an opportunity to raise questions and share your experiences of the syllabus.
- **Enrichment Professional Development** – Transform your approach to teaching with our Enrichment workshops. Each workshop focuses on a specific area of teaching and learning practice.
- **Cambridge Professional Development Qualifications (PDQs)** – Practice-based programmes that transform professional learning for practicing teachers. Available at Certificate and Diploma level.

For more information visit **www.cambridgeinternational.org/support-for-teachers**

Supporting exams officers

We provide comprehensive support and guidance for all Cambridge exams officers.
Find out more at: **www.cambridgeinternational.org/eoguide**

2 Syllabus overview

Aims

The aims describe the purposes of a course based on this syllabus.

The aims are to enable students to:

- develop a confident working knowledge and understanding of psychological concepts, explanations and key theories related to each topic
- explore a range of research methods, building an understanding of how they are carried out and when they might be used
- consider how the application of different research methods may impact results and conclusions
- develop an awareness of relationships between psychological research and everyday life, by exploring the arguments for and against key theories and applying them to real-life scenarios
- build an awareness of the ethical issues in psychology and the importance of ethical guidelines
- develop an understanding of how individual, social and cultural diversity relates to psychology and why this is important
- develop a curiosity about human thinking and behaviour, inspiring an interest that could lead to further study.

We are an education organisation and politically neutral. The contents of this syllabus, examination papers and associated materials do not endorse any political view. We endeavour to treat all aspects of the exam process neutrally.

Content overview

Cambridge International IGCSE Psychology provides candidates with opportunities to explore psychological theories, explanations, concepts and studies through six compulsory topics:

- Memory and forgetting
- Sleep and dreams
- Prosocial behaviour
- Visual perception
- Motivation and needs
- Language development.

Candidates also study research methods:

- Experimental method
- Non-experimental methods.

Within each topic, theories and explanations are drawn from a range of approaches to represent different perspectives in psychology. This syllabus selects one argument for and one argument against the psychological theories and explanations in the content, from the many that are available.

Studies are named for each topic and are used as evidence to support a theory or explanation. Candidates will **not** be expected to evaluate a study in terms of its strengths and weaknesses. Candidates are **not** expected to have read the original study.

Cambridge provides summaries of the named studies which contain a sufficient level of detail for learners studying a course based on this syllabus. The summaries can be found in the *Named studies: Summaries and reference list* for Cambridge IGCSE Psychology 0266, available on the website.

Assessment overview

All candidates take two components. Candidates will be eligible for grades A* to G.

All candidates take:

Paper 1 1 hour 30 minutes
53%

90 marks

Candidates answer **all** questions in each section.

Section A
Memory and forgetting 20 marks

Section B
Sleep and dreams 20 marks

Section C
Prosocial behaviour 20 marks

Section D
Experimental research method 30 marks

One of the Sections A–C will include an 8-mark item. This section will vary.

Section D in Paper 1 will assess syllabus sections 7.1 and 7.5–7.9.

Externally assessed

and:

Paper 2 1 hour 20 minutes
47%

80 marks

Candidates answer **all** questions in each section.

Section A
Visual perception 20 marks

Section B
Motivation and needs 20 marks

Section C
Language development 20 marks

Section D
Non-experimental research methods 20 marks

One of the Sections A–C will include an 8-mark item. This section will vary.

Section D in Paper 2 will assess syllabus sections 7.2–7.4 and 7.5–7.9.

Externally assessed

Information on availability is in the **Before you start section.**

Assessment objectives

The assessment objectives (AOs) are:

AO1 Knowledge and understanding

Demonstrate knowledge and understanding of

- psychological terminology, concepts, theories, research methods.
- ethical guidelines and methods used in psychological research.

AO2 Application

Apply relevant knowledge and understanding of psychology to a range of scenarios.

AO3 Analysis and evaluation

Analyse data to reach conclusions.

Analyse psychological concepts, explanations and theories.

Analyse and evaluate research methods in terms of validity, reliability and ethics.

Weighting for assessment objectives

The approximate weightings allocated to each of the assessment objectives (AOs) are summarised below.

Assessment objectives as a percentage of the qualification

Assessment objective	**Weighting in IGCSE %**
AO1 Knowledge and understanding	35
AO2 Application	50
AO3 Analysis and evaluation	15
Total	100

Assessment objectives as a percentage of each component

Assessment objective	**Weighting in components %**	
	Paper 1	**Paper 2**
AO1 Knowledge and understanding	35	35
AO2 Application	50	50
AO3 Analysis and evaluation	15	15
Total	100	100

3 Subject content

This syllabus gives you the flexibility to design a course that will interest, challenge and engage your learners. Where appropriate you are responsible for selecting resources and examples to support your learners' study. Flexibility is built into the content to allow teachers to select locally relevant examples to support application of knowledge to novel scenarios. These should be appropriate for the learners' age, cultural background and learning context as well as complying with your school policies and local legal requirements.

There are seven sections in the content:

1 Memory and forgetting
2 Sleep and dreams
3 Prosocial behaviour
4 Visual perception
5 Motivation and needs
6 Language development
7 Research methods.

Teachers must teach all seven sections. Candidates must answer questions on all the sections.

Psychology relies on key terms that learners must understand to progress in the subject. We have included definitions of the key terms in the content that are appropriate for this level of study. The definitions show what learners need to know at this level, giving teachers confidence when planning their teaching. Key terms are highlighted in bold in the content. In the assessment, candidates can gain full credit using alternative language which conveys the same meaning. A glossary of key terms for this syllabus is also available on the School Support Hub.

Candidates will only be expected to give strengths and weaknesses in terms of validity, reliability and ethics within the research methods section.

Named studies

There are three compulsory named studies for each topic, 1–6. Candidates should have knowledge of the **results** and **conclusion(s)** of each named study to support theories and explanations in Topics 1–6 only. Candidates will **not** be expected to have knowledge of the strengths and weakness of the named studies.

The *Named studies: Summaries and reference list* for Cambridge IGCSE Psychology 0266 is available on the website.

Study summaries include:

The **aim(s)** of the study

The **procedure** of the study

- how the aim was tested
- how data was collected from participants

The **results** of the study, including the main findings and how they are or could be represented and interpreted

The **conclusion(s)** that can be reached from the study.

1 Memory and forgetting

1.1 Key concepts

1.1.1 **Memory**, information processing:

- encoding
- storage
- retrieval.

1.1.2 The following features of a memory store:

- **input**, incoming information that is processed into memory
- **capacity**, maximum amount of information a memory store can hold
- **duration**, length of time information can be held in a memory store
- **access**, ability to get information from a memory store.

1.1.3 The following types of memory:

- **declarative memory**, stored information about facts or events that is consciously remembered and recalled
- **procedural memory**, stored information about how to do tasks.

1.1.4 **Forgetting,** inability to remember information learned previously, including:

- **retrograde amnesia**, inability to remember information learned previously or past events that happened before injury, disease or trauma
- **anterograde amnesia**, inability to remember new information, after injury, disease or trauma.

1.2 Craik and Lockhart's levels of processing (LoP) model of memory

1.2.1 Craik and Lockhart's levels of processing (LoP) model of memory, including input, capacity, duration, and access.

Storage is a by-product of processing.

1.2.2 Craik and Lockhart's levels of processing:

- structural processing (visual features only)
- phonemic processing (auditory features only)
- semantic processing (meaning only).

1.2.3 Argument for Craik and Lockhart's levels of processing (LoP) model of memory:

- support from the named study: levels of processing (Craik and Tulving, experiment 2 only).

1.2.4 Argument against Craik and Lockhart's levels of processing (LoP) model of memory:

- levels of processing (LoP) cannot explain the limited capacity of memory.

continued

1.2 Craik and Lockhart's levels of processing (LoP) model of memory continued

1.2.5 Craik and Lockhart's levels of processing (LoP) model of forgetting.

Encoding specificity principle, memory recall is improved when the recall conditions (context, cue) are the same as encoding conditions.

1.2.6 Application of knowledge of Craik and Lockhart's levels of processing (LoP) model of memory and forgetting to novel scenarios.

1.3 Atkinson and Shiffrin's multistore model (MSM) of memory

1.3.1 Atkinson and Shiffrin's multistore model (MSM) of memory.

1.3.2 Memory stores, including input, capacity, duration, and access:

- sensory register (SR), including role of attention
- short-term memory (STM)
- long-term memory (LTM)
- the serial position effect, including:
  - **primacy effect**, when information presented at the beginning is better remembered than information presented at a later stage
  - **recency effect**, when information presented at a recent stage is better remembered than information presented at an earlier stage.

1.3.3 Atkinson and Shiffrin's multistore model (MSM) in understanding forgetting:

- displacement: short-term memory (STM), forgetting information stored in short-term memory (STM), due to new information
- decay: short-term memory (STM) and sensory register (SR), forgetting information from short-term memory due to lack of rehearsal
- access problems: long-term memory (LTM).

1.3.4 Argument for Atkinson and Shiffrin's multistore model (MSM) of memory:

- support from the named study: serial position effect (Murdock).

1.3.5 Argument against Atkinson and Shiffrin's multistore model (MSM) of memory:

- multistore model (MSM) of memory cannot explain depth of processing.

1.3.6 Application of knowledge of Atkinson and Shiffrin's multistore model (MSM) of memory and forgetting to novel scenarios.

1.4 Motivated forgetting

1.4.1 The psychodynamic theory of forgetting, including the role of motivation.

1.4.2 The role of structure of personality:

- **id**, innate part of the mind led by desire
- **ego**, part of the mind that balances the id and super-ego
- **super-ego**, part of the mind led by moral and societal standards.

The concept of the id should be taught in a way that is appropriate for the learners' age, cultural background and learning context. Learners are **not** expected to have knowledge of the id in terms of sexual or violent impulses.

1.4.3 The role of parts of the mind:

- **conscious**, thoughts and feelings currently in a person's awareness.
- **pre-conscious**, thoughts and feelings a person is not currently aware of, but can easily bring to their awareness
- **unconscious**, thoughts and feelings a person cannot bring to their awareness.

1.4.4 The role of **defence mechanisms**, protective behaviours by ego to reduce anxiety caused by conflict between different structures of personality:

- **repression**, unconscious removal of emotionally painful experiences and unacceptable thoughts and feelings from consciousness
- **suppression**, conscious removal of unpleasant experiences and unacceptable thoughts and feelings from consciousness.

1.4.5 Application of knowledge of the psychodynamic theory of forgetting to novel scenarios.

1.5 Role of the brain in memory and forgetting

1.5.1 **Localisation** of function in the brain:

- specific parts of the brain are responsible for specific functions.

1.5.2 Limbic system, network of structures in the brain involved in processing of emotion, memory and learning.

1.5.3 The role of the following parts of the limbic system involved in memory formation and memory loss, including the effect of damage:

- amygdala, influences the consolidation of memories that are emotionally-arousing
- hippocampus, consolidates memories from short-term memory (STM) to long-term memory (LTM).

1.5.4 Cerebellum, part of the brain involved in body balance and procedural memory.

1.5.5 The role of the cerebellum in memory formation and memory loss, including:

- storing procedural memories
- the effect of damage.

continued

1.5 Role of the brain in memory and forgetting continued

1.5.6 Argument for the role of the amygdala and hippocampus in memory:

- support from the named study: HM amnesia (Milner et al.).

1.5.7 Argument against the role of the amygdala and hippocampus in memory:

- other parts of the brain are implicated in memory, for example, different parts of the cerebral cortex.
  - the cerebral cortex is the outer layer of the cerebrum involved in reasoning, memory, learning, and language.

1.5.8 Application of knowledge of the role of the brain in memory and forgetting to novel scenarios.

2 Sleep and dreams

2.1 Key concepts

2.1.1 **Biological rhythms**, natural cycles of bodily processes regulated by a person's internal 'clock', limited to:

- **circadian rhythms**
  - cycle of sleeping and waking (sleep-wake cycle)
  - repeat every 24 hours
- **ultradian rhythms**
  - cycles within sleeping and waking
  - repeat more than once in a 24-hour period.

2.1.2 Types of sleep within the sleep cycle, including their duration and characteristics (brain activity, muscle tension, eye movements and **dreams**):

- rapid eye movement (REM)
- non-rapid eye movement (nREM).

Candidates will **not** be expected to have knowledge of stages of sleep within the sleep cycle.

2.1.3 **Dreams**, thoughts, feelings, images, and stories that occur in a person's mind during sleep.

2.1.4 Ways of measuring characteristics of sleep:

- EEG (electroencephalography)
- EMG (electromyography)
- EOG (electrooculography)
- dream reporting.

2.1.5 The role of **exogenous cues** (zeitgebers), external factors that affect biological rhythms in the sleep-wake cycle, including light and social cues.

2.1.6 **Hormones**, chemical substances, produced and released by a gland and carried in the blood stream, which alters the activity of one or more specific target cells.

continued

2.1 Key concepts continued

2.1.7 The role of **endogenous pacemakers**, internal mechanisms that regulate biological rhythms in the sleep-wake cycle, including the SCN (suprachiasmatic nucleus), pineal gland and the hormone melatonin.

2.1.8 The role of biological rhythms in the following, including negative effects and symptoms, such as tiredness:

- **jetlag**, psychological and physical effects felt after travelling rapidly across multiple timezones
- **shiftwork**, work schedule involving working during different periods during day and night, including outside normal working hours.

2.1.9 The characteristics of sleep disorders, limited to:

- insomnia
- sleep paralysis
- sleepwalking.

2.1.10 The role of biological rhythms in sleep disorders, limited to:

- insomnia
- sleep paralysis
- sleepwalking.

2.1.11 Application of knowledge of the biological processes of sleep and waking to novel scenarios.

2.2 Restoration theory of sleep

2.2.1 The restoration theory of sleep:

- the role of non-rapid eye movement (nREM) and rapid eye movement (REM) sleep:
  - non-rapid eye movement (nREM) sleep is important for restoring physiological functions
  - rapid eye movement (REM) sleep is important for restoring psychological/brain functions
- the effect of sleep on the function of the amygdala, part of the limbic system involved in processing emotions.

2.2.2 Changes in sleep patterns over the lifespan. For example, ratio of non-rapid eye movement (nREM) to rapid eye movement (REM) sleep for infants versus adults.

2.2.3 Argument for the restoration theory of sleep:

- support from the named study: sleep restriction (Robinson et al.).

2.2.4 Argument against the restoration theory of sleep:

- muscle repair also happens effectively during waking rest as well as sleep.

2.2.5 Application of knowledge of the restoration theory of sleep to novel scenarios.

2.3 Hobson & McCarley's activation-synthesis theory of dreaming

2.3.1 Brain regions involved in dreaming:

- thalamus
  - part of the brain that transfers sensory and motor information to the cerebral cortex
  - active in generating images and information during rapid eye movement (REM)
- amygdala
  - part of the limbic system involved in memory and emotional learning
  - active in processing emotions within dreams during rapid eye movement (REM).

2.3.2 Hobson & McCarley's activation-synthesis theory of dreaming:

- sensory input blockade
- motor output blockade
- random activation
- synthesis in the cerebral cortex.

2.3.3 Argument for Hobson & McCarley's activation-synthesis theory of dreaming:

- support from the named study: bizarreness of dream content (Williams et al.).

2.3.4 Argument against Hobson & McCarley's activation-synthesis theory of dreaming:

- some dreams are meaningful to individuals and do not seem to be random.

2.3.5 Application of knowledge of the activation-synthesis theory of sleep to novel scenarios.

2.4 Psychodynamic theory of dreaming

2.4.1 The role of parts of the mind:

- conscious
- pre-conscious
- unconscious.

2.4.2 Types of dream content:

- **manifest content**, actual content or events of dreams that can be recalled upon waking
- **latent content**, hidden, symbolic meaning of dreams.

2.4.3 **Wish fulfilment**, satisfying the unconscious desires of the **id** through dreams.

The concept of the id should be taught in a way that is appropriate for the learners' age, cultural background and learning context. Learners are **not** expected to have knowledge of the id in terms of sexual or violent impulses.

continued

2.4 **Psychodynamic theory of dreaming** continued

2.4.4 Mechanisms of dreamwork:

- **condensation**, combining different images, meanings or emotions into one dream object
- **displacement**, transfer of feelings or behaviours from the original dream object to another
- **secondary elaboration**, the work the unconscious mind does to add detail and make logical sense of manifest content.

2.4.5 The process of dream analysis, including use in therapy, limited to:

- bringing latent content into the conscious
  - **free association**, technique in which a person expresses any thought that comes to mind, no matter how embarrassing or illogical it is
  - **symbol analysis**, interpretation based on dream object.

2.4.6 Argument for the psychodynamic theory of dreaming:

- support from the named study: dreams and trauma (Iorio et al.).

2.4.7 Argument against the psychodynamic theory of dreaming:

- interpretation of symbols in dreams is subjective, impacted by personal opinions and feelings; biased.

2.4.8 Application of knowledge of the psychodynamic theory of dreaming to novel scenarios.

3 Prosocial behaviour

3.1 Key concepts

3.1.1 Description of **prosocial behaviour**, positive action that benefits others, including:

- development of prosocial behaviour with age
- examples of prosocial behaviour, including helping, sharing, and caring.

3.1.2 **Individual factors:**

- unique features of a person which can affect prosocial behaviour
- examples include personality, age, biological factors.

3.1.3 **Situational factors**:

- factors external to a person which can affect prosocial behaviour
- examples include location, proximity, environmental factors.

3.2 Biological explanation of prosocial behaviour

3.2.1 **Neurotransmitters**, chemical signals produced by a nerve cell and released to the target cell.

3.2.2 The function of the neurotransmitter **serotonin** in prosocial behaviour.

3.2.3 The function of the hormone **oxytocin** in prosocial behaviour.

3.2.4 The role of the following brain areas in prosocial behaviour:

- prefrontal cortex, part of the cerebral cortex involved in attention, emotional expression and social behaviours
- amygdala, active in empathetic responses.

3.2.5 **Heritability**, a measure of the extent to which differences in a characteristic or behaviour can be explained by differences in genes.

3.2.6 **Heritability** of prosocial behaviour, including the similarities of monozygotic (MZ) and dizygotic (DZ) twins.

3.2.7 Argument for the biological explanation of prosocial behaviour:

- support from the named study: heritability of social responsibility (Rushton).

3.2.8 Argument against the biological explanation of prosocial behaviour:

- heritability is not entirely responsible for prosocial behaviour, there are also environmental influences, for example, social groups and roles.

3.2.9 Application of knowledge of the biological explanation of prosocial behaviour to novel scenarios.

3.3 Social identity theory of prosocial behaviour

3.3.1 **Social identity**, part of a person's identity that that comes from belonging to social groups, such as family and ethnicity.

3.3.2 Tajfel and Turner's social identity theory:

- stages including social categorisation, social identification, and social comparison
- relationship between group membership and self-esteem
- dynamics of
  - **ingroups**, groups that a person is a member of
  - **outgroups**, groups that a person is not a member of.

3.3.3 Tajfel and Turner's social identity theory in understanding prosocial behaviour:

- role of shared identity in prosocial behaviour
- helping and ingroup favouritism.

continued

3.3 Social identity theory of prosocial behaviour continued

3.3.4 Argument for the social identity theory of prosocial behaviour:

- support from the named study: helping behaviour (Levine et al., study 1 only).

3.3.5 Argument against the social identity theory of prosocial behaviour:

- prosocial behaviour is not just influenced by social identity. For example, individual differences between members of the same social groups and cultural factors.

3.3.6 Application of knowledge of the social identity theory of prosocial behaviour to novel scenarios.

3.4 Bandura's social learning theory of prosocial behaviour

3.4.1 Bandura's social learning theory:

- four processes of social learning: attention, retention, reproduction, and motivation
- types of models: live, symbolic, verbal instruction
- the role of vicarious reinforcement.

3.4.2 Bandura's social learning theory in understanding prosocial behaviour:

- observation of prosocial behaviours
- imitation of models' prosocial behaviour
- **vicarious reinforcement**, as motivation for prosocial behaviour
  - frequency of a behaviour increases after observing others (models) being rewarded for the same behaviour.

3.4.3 Bandura's social learning theory in understanding prosocial media use:

- **modelling**, learning by imitating or copying others (models)
- **parental mediation of media use**, frequency of a behaviour increases after observing others (models) being rewarded for the same behaviour
- **empathy**, ability to understand another's feelings and see things from their point of view.

Media includes music, television, video games and social media.

3.4.4 Argument for Bandura's social learning theory of prosocial behaviour:

- support from the named study: prosocial media (Prot et al., study 1 only).

3.4.5 Argument against Bandura's social learning theory of prosocial behaviour:

- environmental influences are not entirely responsible for prosocial behaviour, there are also biological factors, for example, hormones, neurotransmitters, brain areas and genetics.

3.4.6 Application of knowledge of Bandura's social learning theory to novel scenarios.

4 Visual perception

4.1 Key concepts

4.1.1 **Sensation**, physical detection of stimuli using the senses.

4.1.2 **Perception**, interpretation and conscious experience of sensory information.

4.1.3 The five senses:

- sight
- hearing
- touch
- taste
- smell.

4.1.4 The role of the **occipital lobe** in visual perception:

- part of the cerebral cortex involved in processing visual stimuli.

4.1.5 Visual constancies in perception:

- shape
- size
- colour.

4.1.6 Depth cues in the environment that help perception:

- relative brightness
- texture gradient
- relative size
- superimposition
- height in plane.

4.1.7 The **Gestalt principles** of perception, limited to:

- figure-ground
- similarity
- proximity
- closure
- continuity.

4.1.8 Application of knowledge of the five senses, visual constancies, and Gestalt principles to novel scenarios.

4.2 Gibson's direct theory of perception

4.2.1 Gibson's direct theory of perception, including:

- bottom-up theory
  - role of nature (innate)
  - information from senses
  - mechanism for survival
- **optic flow**, appearance of objects as the observer moves past the objects
- **motion parallax**, closer objects appear to move faster than objects further away
- types of **invariants**, aspects of the environment that do not change when the observer moves
  - linear perspective
  - texture perspective
- **affordance**, the possible actions we perceive our environment to offer.

4.2.2 Argument for Gibson's direct theory of perception:

- support from the named study: visual cliff (Gibson and Walk).

4.2.3 Argument against Gibson's direct theory of perception

- ignores influence of expectation and culture on perception.

4.2.4 Application of knowledge of Gibson's direct theory of perception to novel scenarios.

4.3 Gregory's constructivist theory of perception

4.3.1 Gregory's constructivist theory of perception, including:

- top-down theory
- role of nurture (environment)
- **schemas**, mental structures people use to organise and store information about their environment
- **inferences** (from visual and auditory information), conclusion or prediction based on prior knowledge
- **perceptual hypotheses**, educated guesses people make when interpreting sensory information.

4.3.2 **Perceptual set,** noticing some aspects of sensory information and not others, based on schemas.

4.3.3 Factors affecting perceptual set:

- culture: depth cue variance, norms, and values
- motivation and emotion
- expectation.

continued

4.3 Gregory's constructivist theory of perception continued

4.3.4 Argument for Gregory's constructivist theory of perception:

- support from the named study: familiarity and perception (Haber and Levin, experiment 2 only).

4.3.5 Argument against Gregory's constructivist theory of perception:

- ignores the role of nature in perception.

4.3.6 Application of knowledge of Gregory's constructivist theory of perception to novel scenarios.

4.4 Visual illusions and culture

4.4.1 Types of two-dimensional (2D) visual illusions:

- ambiguous figures
  - Leeper's lady illusion
- fictions
  - Kanizsa triangle illusion
- distortions
  - Müller-Lyer illusion
- impossible figures
  - Penrose triangle illusion
- relative size
  - Ebbinghaus illusion.

4.4.2 Gestalt principles in understanding the visual illusions of ambiguous figures and fictions.

4.4.3 The influence of culture on how visual illusions are experienced:

- differences in attention.

4.4.4 Argument for the influence of culture on how visual illusions are experienced:

- support from the named study: culture and visual illusions (Bremner et al., experiment 2 only).

4.4.5 Argument against the influence of culture on how visual illusions are experienced:

- there are universal aspects of human perception that go beyond culture differences.

4.4.6 Application of knowledge of illusions to novel scenarios.

5 Motivation and needs

5.1 Key concepts

5.1.1 **Motivation,** psychological force that directs behaviour towards certain goals.

5.1.2 Types of motivation:

- **extrinsic motivation**, type of motivation caused by external benefits; for example, pay, winning a prize
- **intrinsic motivation**, type of motivation caused by personal satisfaction or enjoyment; for example a sense of belonging, feeling of enjoyment.

5.1.3 **Need,** physiological or psychological requirement for survival and wellbeing.

5.1.4 Maslow's hierarchy of needs in the context of motivation, limited to:

- deficiency needs:
  - physiological
  - safety
  - love/belonging
  - esteem
- growth need:
  - self-actualisation.

5.2 Drive reduction theory of motivation

5.2.1 Biological **drives**, states of readiness that motivate an action, created by a biological need.

5.2.2 **Sympathetic nervous system,** network of nerves that activates the body's 'fight or flight' response, when the brain reacts to stress, danger or physical activity.

5.2.3 **Parasympathetic nervous system,** network of nerves that activates the body's 'rest and digest' response, when the body is resting, especially after eating.

5.2.4 Biological **arousal**, state of physiological activation:

- high arousal: activation of **sympathetic nervous system**
- low arousal: activation of **parasympathetic nervous system**.

5.2.5 The role of biological instincts in motivation:

- releasing stimulus/environmental cues
- fixed-action patterns including those required for survival.

continued

5.2 Drive reduction theory of motivation continued

5.2.6 Hull's drive reduction theory of motivation:

- importance of **homeostasis**
  - organism's internal regulation to maintain physiological balance
- physiological arousal
- primary drives and secondary drives
- optimal arousal.

5.2.7 Application of knowledge of Hull's drive reduction theory of motivation to novel scenarios.

5.3 Positive reinforcement in education

5.3.1 **Positive reinforcement**, adding a pleasant stimulus after a behaviour, to increase the chance of the behaviour happening again

- influence of external rewards
- shaping behaviour.

5.3.2 Using positive reinforcement to motivate learners in education, including:

- token economies
- peer feedback
- verbal/non-verbal praise.

5.3.3 Argument for the use of positive reinforcement to motivate learners in education:

- support from the named study: classroom token economy (Boniecki and Moore).

5.3.4 Argument against the use of positive reinforcement to motivate learners in education:

- environmental and individual factors also influence learners' experience.

5.3.5 Application of knowledge of positive reinforcement to motivate learners in education to novel scenarios.

5.4 Psychodynamic motivation and marketing

5.4.1 The role of parts of the mind:

- **conscious**
- **pre-conscious**
- **unconscious**.

continued

5.4 Psychodynamic motivation and marketing continued

5.4.2 The role of structure of personality:

- **id**
- **ego**
- **super-ego**.

The concept of the id should be taught in a way that is appropriate for the learners' age, cultural background and learning context. Learners are **not** expected to have knowledge of the id in terms of sexual or violent impulses.

5.4.3 The role of psychodynamic motivation in marketing, including:

- unconscious desires and identification
- products or brands with symbolic meaning
- defence mechanisms
  - **regression**, returning to an earlier stage of development in terms of thoughts, emotions and behaviours
  - **rationalisation**, justifying undesirable thoughts or behaviours using logical explanations to make them more acceptable
- use of advertising appeals, including nostalgia and morality.

5.4.4 Argument for the role of psychodynamic motivation in marketing:

- support from the named study: nostalgic advertising (Merchant et al., study 3 only).

5.4.5 Argument against the role of psychodynamic motivation in marketing:

- influence of unconscious motives is difficult to observe or measure.

5.4.6 Application of knowledge of the psychodynamic motivation in marketing to novel scenarios.

5.5 Motivation to exercise

5.5.1 Deci and Ryan's self-determination theory, including needs of:

- **competence**, need to feel capable of performing tasks
- **relatedness**, need to feel connected to others and belonging to a community
- **autonomy**, need to feel in control and able to make one's own choices.

5.5.2 Deci and Ryan's self-determination theory in understanding the motivation to exercise, including implications of extrinsic motivation and intrinsic motivation.

5.5.3 Argument for Deci and Ryan's self-determination theory in the context of motivation to exercise:

- support from the named study: sports persistence (Calvo et al.).

5.5.4 Argument against Deci and Ryan's self-determination theory in the context of motivation to exercise:

- environmental barriers to exercise, for example lack of time, health issues, social limitations.

5.5.5 Application of knowledge of Deci and Ryan's self-determination theory to novel scenarios in the context of motivation to exercise.

6 Language development

6.1 Key concepts

6.1.1 **Language**, a system for communicating thoughts and feelings, via verbal and non-verbal ways.

6.1.2 General stages of **language acquisition**, process of learning language:

- pre-linguistic
- babbling
- one word
- two-word
- telegraphic
- multi-word (post telegraphic).

6.2 Biological explanation of language acquisition

6.2.1 The location and function of language centres in the brain:

- frontal lobe: Broca's area (production of speech)
- temporal lobe: Wernicke's area (understanding of speech).

6.2.2 Chomsky's biological explanation of **language acquisition**, including:

- language acquisition device (LAD)
- universal grammar
- **critical period** for language acquisition
  - early stage in life when a person is especially ready for specific learning that may not occur again in later stages.

6.2.3 **Aphasia**, language impairment caused by brain damage following head injury, stroke or illness.

6.2.4 The biological explanation of language acquisition in understanding the following types of **aphasia**:

- Broca's aphasia
- Wernicke's aphasia.

6.2.5 Argument for Chomsky's biological explanation of language acquisition:

- support from the named study: sign language acquisition (Senghas).

6.2.6 Argument against Chomsky's biological explanation of language acquisition:

- language acquisition is not just influenced by biology, for example, cultural and social factors.

6.2.7 Application of knowledge of the biological explanation of language acquisition to novel scenarios.

6.3 Learning theory of language development

6.3.1 Describe the learning theory of language development including:

- observation and imitation
- **positive reinforcement**
- **negative reinforcement**, removing an unpleasant stimulus after a behaviour, to increase the chance of the behaviour happening again.

6.3.2 Argument for the learning theory of language development:

- support from the named study: speech and social feedback (Goldstein et al.).

6.3.3 Argument against the learning theory of language development:

- children's use of novel language.

6.3.4 Application of knowledge of the learning theory of language development to novel scenarios.

6.4 Piaget's cognitive theory of language development

6.4.1 The role of **schemas** in language development, including processes of:

- **assimilation**, incorporating new information into an existing schema, without changing the schema
- **accommodation**, changing existing schema to incorporate new information.

6.4.2 Piaget's cognitive theory of language development including:

- sensory motor stage
  - assimilation: language skills as physical and repetitive
- pre-operational stage
  - **symbolic thought**, using words and images to represent objects and events in the world
  - development of mental imagery
  - speech
    - is **egocentric**, inability to see any point of view other than one's own
    - shows **animism**, belief that non-living objects can think, feel, and behave like living beings
- concrete operational stage
  - de-centration of thought and language
  - speech as socialised (use of questions/answers/commands)
- formal operational stage
  - able to use language to express abstract/theoretical ideas.

continued

6.4 Piaget's cognitive theory of language development continued

6.4.3 Argument for Piaget's cognitive theory of language development:

- support from named study: schemas and language (Hewitt).

6.4.4 Argument against Piaget's cognitive theory of language development:

- children's abilities at different ages and stages are influenced by the environment, for example culture and upbringing.

6.4.5 Application of knowledge of Piaget's cognitive theory of language development to novel scenarios.

7 Research methods

7.1 Experimental method

7.1.1 The features of an **experiment**.

An experiment defined as a method of investigating the effect of one variable on another variable, under controlled conditions.

Candidates will **not** be expected to have knowledge of different types of experiments, for example laboratory experiments and field experiments.

7.1.2 Application of knowledge of experiments to novel scenarios.

7.1.3 **Independent variable**, including the use of levels (conditions).

Independent variable defined as the variable that is manipulated; may have two or more conditions or levels.

7.1.4 **Dependent variable**, including measurement by experimental tests or tasks, observation, questionnaire and interviews.

Dependent variable defined as a variable that is measured.

7.1.5 Application of knowledge of independent and dependent variables to novel scenarios.

7.1.6 How variables can be **operationalised**, including the process of operationalisation or producing an operational definition to be manipulated (IV) or measured (DV).

Operationalised defined as defining a variable or behavioural category so it can be accurately measured or observed.

7.1.7 Application of knowledge of operationalisation of variables to novel scenarios.

7.1.8 **Experimental design** defined as a way of assigning participants to different conditions or levels in an experiment.

Candidates will **not** be expected to have knowledge of matched pairs design.

7.1.9 Application of knowledge of experimental designs to novel scenarios.

Candidates will **not** be expected to have knowledge of mixed experimental designs to novel scenarios.

continued

7.1 Experimental method continued

7.1.10 R**epeated measures** experimental design, including the use of **counterbalancing**.

Repeated measures defined as the same participants take part in each condition of an experiment; participants experience all of the levels of the independent variable.
Counterbalancing defined as changing the order in which participants experience the different conditions, to reduce the impact of extraneous variables in an experiment.

7.1.11 Application of knowledge of repeated measures designs to novel scenarios.

7.1.12 I**ndependent measures** experimental design, including the use of **random allocation** to levels of the independent variable (IV).

Independent measures defined as different participants take part in each condition of an experiment; participants experience only one of the levels of the independent variable.

Random allocation defined as assignment of participants to different conditions in an experiment, so that each participant has an equal chance of being assigned to any particular condition.

7.1.13 Application of knowledge of independent measures designs to novel scenarios.

7.1.14 **Experimental conditions** defined as levels of the independent variable that are manipulated in an experiment.

7.1.15 Application of knowledge of experimental conditions to novel scenarios.

7.1.16 **Experimental groups** defined as participants who experience the experimental condition(s).

7.1.17 **Control groups** defined as participants who do not experience the experimental condition(s) and are used as a comparison group.

7.1.18 Application of knowledge of experimental groups and control groups to novel scenarios.

7.1.19 **Extraneous variable** defined as a variable, other than the independent variable, that can have an impact on the dependent variable in an experiment.

7.1.20 **Control** defined as step(s) taken by researcher to reduce or keep the impact of extraneous variable(s) constant.

7.1.21 Application of knowledge of extraneous variables and controls to novel scenarios.

7.2 Non-experimental method: observations

7.2.1 The features of an **observation**.

Observation defined as a method of collecting data by watching participants.

Candidates will **not** be expected to have knowledge of:

- participant or non-participant observation
- controlled or naturalistic observation.

7.2.2 Application of knowledge of observation to novel scenarios.

7.2.3 The features of a **structured observation**, including:

- use of operationalised **behavioural categories**
- use of tally charts and checklists

Structured observation defined as observing a fixed set of behaviours that the researcher selects in advance.

Behavioural categories defined as specific activities recorded in a structured observation.

7.2.4 The features of an **unstructured observation**.

Unstructured observation defined as observing a complete range of possible behaviours that the researcher does not select in advance.

7.2.5 Application of knowledge of structured and unstructured observation to novel scenarios.

7.2.6 How behavioural categories can be operationalised.

7.2.7 Application of knowledge of operationalisation of behavioural categories to novel scenarios.

7.2.8 The features of a **covert observation**.

Covert observation defined as the role of observer is not known or obvious to the participants, as the observers are hidden or disguised.

7.2.9 The features of an **overt observation**.

Overt observation defined as the role of observer is obvious to the participants and the participants know that they are being observed.

7.2.10 Application of knowledge of covert and overt observation to novel scenarios.

7.3 Non-experimental method: questionnaires and interviews

7.3.1 The features of a **questionnaire**, including questionnaire techniques.

A questionnaire defined as a method of collecting data by asking written questions to participants.

Candidates will **not** be expected to have knowledge of postal questionnaires.

7.3.2 The features of an **interview**.

Interview defined as a method of collecting data by asking verbal questions to participants.

Candidates will **not** be expected to have knowledge of:

- structured, semi-structured, unstructured
- telephone, face-to-face.

continued

7.3 Non-experimental method: questionnaires and interviews continued

7.3.3 Application of knowledge of questionnaires and interviews to novel scenarios.

7.3.4 **Open questions** defined as questions that require detailed answers in participants' own words; no answer choices are given to participants.

7.3.5 **Closed questions** defined as questions with a fixed set of possible responses.

7.3.6 Application of knowledge of open and closed questions to novel scenarios.

7.4 Non-experimental method: case studies

7.4.1 Describe the features of a **case study**:

- collecting data using:
  - tests
  - tasks
  - observations
  - questionnaires
  - interviews
- the use of triangulation.

Case study defined as an in-depth investigation of a single individual, group, or event.

7.4.2 Application of knowledge of case studies to novel scenarios.

7.5 Sampling

7.5.1 **Population** defined as a group of people with one or more characteristics in common, from which a sample is selected.

7.5.2 **Sample** defined as a group of people selected to represent the population in research.

7.5.3 Types of **sampling technique**, limited to **opportunity sample** and **volunteer sample**.

Sampling technique defined as the method used to select research participants from the population.

Opportunity sample defined as participants are selected because they are available at the time of research.

Volunteer sample defined as participants choose to take part in research by responding to an invitation to participate.

7.5.4 Application of knowledge to novel scenarios of:

- populations
- samples
- sampling techniques
  - opportunity sampling
  - volunteer sampling.

7.6 Validity and reliability

7.6.1 **Validity**, including **subjectivity** and **objectivity**.

Validity defined as extent to which the researcher is investigating what they aimed to investigate.

Subjectivity defined as impacted by personal opinions and feelings; biased.

Objectivity defined as not impacted by personal opinions and feelings; unbiased.

Candidates will **not** be expected to have knowledge of named types of validity, for example ecological validity or temporal validity.

7.6.2 Application of knowledge of validity to novel scenarios, including how to improve validity.

7.6.3 **Reliability** including **inter-rater reliability** and **inter-observer reliability**.

Reliability defined as consistency of procedure or measures used to collect data in research.

Inter-rater reliability defined as consistency and agreement between raters judging the same responses.

Inter-observer reliability defined as consistency and agreement between observers observing the same behaviours.

Candidates will **not** be expected to have knowledge of how to measure inter-rater reliability or inter-observer reliability.

7.6.4 Application of knowledge of reliability to novel scenarios, including how to improve reliability.

7.7 Ethical guidelines

7.7.1 **Ethical guidelines** used in psychological research:

- general rules that researchers need to follow to protect the rights and wellbeing of the participants
  - **consent**, valid consent, including informed consent
    - voluntary agreement to participate in research
  - **debriefing**
    - providing full information about the research to participants once data are collected; used to reduce any impacts of deception
  - **confidentiality**
    - protecting personal information of participants by keeping their data anonymous
  - **avoiding deception**
    - avoiding intentionally giving wrong or incomplete information to participants
  - **right to withdraw**
    - participants are aware they can leave the research at any time
  - **privacy**
    - respecting participants' personal space, refraining from making participants reveal unnecessary personal details
  - **minimising harm**, including maximising benefit
    - participants are not exposed to any greater physical or psychological risk than participants may experience in their daily life.

7.7.2 Application of knowledge of ethical guidelines to novel scenarios Including how to improve adherence to ethical guidelines.

7.8 Role of the researcher, materials and procedure

7.8.1 The research process:

- setting an **aim**, the purpose of the research
- designing a procedure, including
  - organising experimental conditions, the observational setting, controls, use of a **stooge (confederate)**
    - a person in the experiment who is playing a role in the research, without the participants' knowledge
  - choosing materials, including stimuli, tests/tasks, behavioural categories, questions
- considering validity and reliability
- implementing ethical guidelines
- briefing participants and giving instructions
- conducting the research and collecting data including
  - experimental tests/tasks
  - observations
  - questionnaires
  - interviews
  - case studies
- analysing data, including results and conclusions.

7.8.2 Apply the aspects listed in 7.8.1 of the research process to novel scenarios.

7.9 Dealing with data

7.9.1 Use and structure of data tables, including:

- rows
- columns
- row headings
- column headings
- units (where appropriate).

7.9.2 Application of knowledge of data tables to novel scenarios.

Information may be presented in written from, tables and bar charts.

continued

7.9 Dealing with data continued

7.9.3 **Measures of central tendency**, including how to find the **mean**, **median** and **mode**.

Measures of central tendency defined as values that show a typical score in a set of data.

Mode defined as the value that appears most frequently in a set of data.

Median defined as the value that appears in the middle of a set of data, when arranged from the smallest score to the largest value.

Mean defined as the value calculated by adding all the scores and then dividing by the number of scores in the set of data.

Candidates will **not** be expected to find measures of central tendency.

7.9.4 Application of knowledge to select and use measures of central tendency to novel scenarios

7.9.5 **Measure of spread**, including describing how to find the **range**.

Measure of spread defined as a value that shows how similar or different values are in a set of data.

The range defined as the difference between the highest value and the lowest value in a set of data.

Candidates will **not** be expected to find the range.

7.9.6 Application of knowledge of the range to novel scenarios.

7.9.7 Bar charts, including their use and the format of bar charts including:

- axes
- labels
- placement of bars
- units (where appropriate).

7.9.8 Application of knowledge of bar charts to novel scenarios.

7.9.9 Reaching a **conclusion**.

Conclusion defined as interpretation of the patterns in data to make a reasoned decision about whether the results support the research aim.

7.9.10 Application of knowledge of reaching conclusions from data in tables and bar charts to novel scenarios.

Named studies reference list

1 Memory and forgetting:

Craik, F, and Tulving, E. (1975). Depth of processing and the retention of words in episodic memory. *Journal of Experimental Psychology: General*, 104, 268–294.

Milner, B., Corkin, S. and Teuber, H.-L. (1968) Further analysis of the hippocampal amnesic syndrome: 14-year follow-up study of H.M. *Neuropsychologia 6*, 215–234.

Murdock, B. B., Jr. (1962). The serial position effect of free recall. *Journal of Experimental Psychology*, 64(5), 482–488.

2 Sleep and dreams:

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Iorio, I., Sommantico, M., and Parrello, S. (2020). Dreaming in the time of COVID-19: A quali-quantitative Italian study. *Dreaming*, 30(3), 199–215.

Williams, J., Merritt, J., Rittenhouse, C., and Hobson, J. (1992). Bizarreness in dreams and fantasies: Implications for the activation-synthesis hypothesis. *Consciousness and Cognition*, 1(2), 172–185.

3 Prosocial behaviour:

Rushton, J. (2004). Genetic and environmental contributions to pro-social attitudes: a twin study of social responsibility. *Proceedings of the Royal Society of London. Series B: Biological Sciences*, 271(1557), 2583–2585.

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Prot, S., Gentile, D., Anderson, C., Suzuki, K., Swing, E., Lim, K., Horiuchi, Y., Jelic, M., Krahé, B., Liuqing, W., Liau, A., Khoo, A., Petrescu, P., Sakamoto, A., Tajima, S., Toma, R., Warburton, W., Zhang, X. and Lam, B. (2014). Long-term relations among prosocial-media use, empathy, and prosocial behavior. *Psychological Science*, 25(2), 358–368.

4 Visual perception:

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Gibson, E. and Walk, R. (1960). *Visual Cliff. Scientific American*. 202 (4): 64–71.

Haber, R. and Levin, C. (2001). The independence of size perception and distance perception. *Perception & Psychophysics*, 63(7), 1140–1152.

5 Motivation and needs:
Boniecki, K. and Moore, S. (2003). Breaking the silence: Using a token economy to reinforce classroom participation. *Teaching of Psychology*, 30(3), 224–227.
Calvo, T. G., Cervelló, E., Jiménez, R., Iglesias, D., and Murcia, J. (2010). Using self-determination theory to explain sport persistence and dropout in adolescent athletes. *The Spanish Journal of Psychology*, 13(2), 677–684.
Merchant, A., Latour, K., Ford, J., and Latour, M. (2013). How strong is the pull of the past?: Measuring personal nostalgia evoked by advertising. *Journal of Advertising Research*, 53(2), 150–165.

6 Language development:
Goldstein, M., King, A., and West, M. (2003). Social interaction shapes babbling testing parallels between birdsong and speech. *Proc. Natl. Acad. Sci. U.S.A.* 100, 8030–8035.
Hewitt, E. (2022). An exploration of the relationship between schema and language: four young child case studies. *Early Child Development and Care*, 192(12), 1931–1939.
Senghas, A. (1995). The development of Nicaraguan Sign Language via the language acquisition process. *Proceedings of the 19th annual Boston University conference on language development.* 543–552. Cascadilla Press.

Faculty feedback: 'Understanding how and why our climate is changing and providing the knowledge and skills to explore the challenges plays a key role in every student's education.'

Feedback from: Dr Amy Munro-Faure, Head of Education and Student Engagement of Cambridge Zero

4 Details of the assessment

Paper 1

Written paper, 1 hour 30 minutes, 90 marks

Candidates answer **all** questions.

Candidates write their answers on the question paper.

This paper contains four sections:

- Section A: short answer questions on Memory and forgetting
- Section B: short answer questions on Sleep and dreams
- Section C: short answer questions on Prosocial behaviour

There will be one 8-mark, extended response question assessing AO1 and AO2, in one of the sections A–C. This section will vary. Candidates will use arguments for/against a theory or concept in sections A–C.

- Section D: short answer questions on research methods, focusing on the Experimental method. This section will assess content from Section 7.1 and 7.5–7.9. It will include one extended response question of 4–6 marks on planning an experiment. Some aspects of the investigation will be provided for candidates as part of the question and candidates will be required to plan the other aspect(s) of the experiment.

Candidates will be tested on all three assessment objectives in this paper.

Paper 2

Written paper, 1 hour 20 minutes, 80 marks

Candidates answer **all** questions.

Candidates write their answers on the question paper.

This paper contains four sections:

- Section A: short answer questions on Visual perception
- Section B: short answer questions on Motivation and needs
- Section C: short answer questions on Language development

There will be one 8-mark extended response question assessing AO1 and AO2, in one of the sections A–C. This section will vary. Candidates will use arguments for/against a theory or concept in sections A–C.

- Section D: short answer questions on research methods, focusing on Non-experimental methods. This section will assess content from Section 7.2–7.4 and 7.5–7.9.

Command words

Command words and their meanings help candidates know what is expected from them in the exams. The table below includes command words used in the assessment for this syllabus. The use of the command word will relate to the subject context.

Command word	What it means
Define	give precise meaning
Describe	state the points of a topic / give characteristics and main features
Explain	set out purposes or reasons / make the relationships between things clear / say why and/or how and support with relevant evidence
Give	produce an answer from a given source or recall/memory
Identify	name/select/recognise
Justify	support a case with evidence/argument
Outline	set out the main points
State	express in clear terms
Suggest	apply knowledge and understanding to situations where there are a range of valid responses in order to make proposals / put forward considerations

5 What else you need to know

This section is an overview of other information you need to know about this syllabus. It will help to share the administrative information with your exams officer so they know when you will need their support. Find more information about our administrative processes at **www.cambridgeinternational.org/eoguide**

Before you start

Previous study

We recommend that learners starting this course should have studied a broad curriculum such as the Cambridge Lower Secondary programme or equivalent national educational framework.

We do not expect learners starting this course to have previously studied psychology.

Guided learning hours

We design Cambridge IGCSE syllabuses to require about 130 guided learning hours for each subject. This is for guidance only. The number of hours a learner needs to achieve the qualification may vary according to each school and the learners' previous experience of the subject.

Availability and timetables

All Cambridge schools are allocated to one of six administrative zones. Each zone has a specific timetable. Find your administrative zone at **www.cambridgeinternational.org/adminzone**.

You can view the timetable for your administrative zone at **www.cambridgeinternational.org/timetables**

You can enter candidates in the June and November exam series.

Check you are using the syllabus for the year the candidate is taking the exam.

Private candidates can enter for this syllabus. For more information, please refer to the *Cambridge Guide to Making Entries*.

Combining with other syllabuses

Candidates can take this syllabus alongside other Cambridge International syllabuses in a single exam series. The only exceptions are:

- syllabuses with the same title at the same level.

Cambridge IGCSE, Cambridge IGCSE (9–1) and Cambridge O Level syllabuses are at the same level.

Group awards: Cambridge ICE

Cambridge ICE (International Certificate of Education) is a group award for Cambridge IGCSE. It encourages schools to offer a broad and balanced curriculum by recognising the achievements of learners who pass exams in a range of different subjects.

Learn more about Cambridge ICE at **www.cambridgeinternational.org/cambridgeice**

Making entries

Exams officers are responsible for submitting entries. We encourage them to work closely with you to make sure they enter the right number of candidates for the right combination of syllabus components. Entry option codes and instructions for submitting entries are in the *Cambridge Guide to Making Entries*. Your exams officer has access to this guide.

Exam administration

To keep our exams secure, we produce question papers for different areas of the world, known as administrative zones. We allocate all Cambridge schools to an administrative zone determined by their location. Each zone has a specific timetable.

Some of our syllabuses offer candidates different assessment options. An entry option code is used to identify the components the candidate will take relevant to the administrative zone and the available assessment options.

Support for exams officers

We know how important exams officers are to the successful running of exams. We provide them with the support they need to make entries on time. Your exams officer will find this support, and guidance for all other phases of the Cambridge Exams Cycle, at **www.cambridgeinternational.org/eoguide**

Retakes

Candidates can retake the whole qualification as many times as they want to. Information on retake entries is at **www.cambridgeinternational.org/retakes**

To confirm what entry options are available for this syllabus, refer to the *Cambridge Guide to Making Entries* for the relevant series. Regulations for carrying forward component marks can be found in the *Cambridge Handbook* for the relevant year of assessment at **www.cambridgeinternational.org/eoguide**

Language

This syllabus and the related assessment materials are available in English only.

Accessibility and equality

Syllabus and assessment design

At Cambridge we recognise that our candidates have highly diverse socio-economic, cultural and linguistic backgrounds, and may also have a variety of protected characteristics. Protected characteristics include special educational needs and disability (SEND), religion and belief, and characteristics related to gender and identity.

We follow accessible design principles to make our syllabuses and assessment materials as accessible and inclusive as possible. We review language accessibility, visual resources, question layout and the contexts used in questions. Using this approach means that we give all candidates the fairest possible opportunity to demonstrate their knowledge, skills and understanding.

Access arrangements

Our design principles aim to make sure our assessment materials are accessible for all candidates. To further minimise barriers faced by candidates with SEND, illness or injury, we offer a range of access arrangements

and modified papers. This is the principal way in which we comply with our duty to make 'reasonable adjustments', as guided by the UK Equality Act 2010.

Important:

Requested access arrangements should be based on evidence of the candidate's barrier to taking an assessment and should also reflect their normal way of working. This is explained in section 1.3 of the *Cambridge Handbook* **www.cambridgeinternational.org/eoguide**

- For Cambridge to approve an access arrangement, we need to agree that it constitutes a reasonable adjustment and does not affect the security or integrity of the assessment.
- Details of our standard access arrangements and modified question papers are available in section 1.3 of the *Cambridge Handbook* **www.cambridgeinternational.org/eoguide**
- Centres are expected to check the availability of access arrangements and modified question papers at the start of the course. All applications should be made by the deadlines published in section 1.3 of the *Cambridge Handbook* **www.cambridgeinternational.org/eoguide**
- Contact us at the start of the course to find out if we can approve an access arrangement that is not included in the list of standard access arrangements.
- Candidates who cannot access parts of the assessment may be able to receive an award based on the parts they have completed.

After the exam

Grading and reporting

Grades A*, A, B, C, D, E, F or G indicate the standard a candidate achieved at Cambridge IGCSE.

A* is the highest and G is the lowest. 'Ungraded' means that the candidate's performance did not meet the standard required for grade G. 'Ungraded' is reported on the statement of results but not on the certificate.

In specific circumstances your candidates may see one of the following letters on their statement of results:

- Q (PENDING)
- X (NO RESULT).

These letters do not appear on the certificate.

On the statement of results, Cambridge IGCSE is shown as INTERNATIONAL GENERAL CERTIFICATE OF SECONDARY EDUCATION (IGCSE).

On certificates, Cambridge IGCSE is shown as International General Certificate of Secondary Education.

How students and teachers can use the grades

Assessment at Cambridge IGCSE has two purposes:

1 to measure learning and achievement

The assessment confirms achievement and performance in relation to the knowledge, understanding and skills specified in the syllabus.

2 to show likely future success

The outcomes help predict which students are well prepared for or likely to be successful in a particular course or career.

The outcomes help students choose the most suitable course or career.

Syllabuses and specimen materials represent the final authority on the content and structure of all of our assessments.

With a Customer Services team available 24 hours a day, 6 days a week, and dedicated regional teams supporting schools in 160 countries, we understand your local context and are here to guide you so you can provide your learners with everything they need to prepare for Cambridge IGCSE.

Quality management

We are committed to providing exceptional quality. In line with this commitment, our quality management system for the provision of international education programmes and qualifications for students aged 5 to 19 is independently certified as meeting the internationally recognised standard, ISO 9001:2015.
Learn more at **www.cambridgeinternational.org/about-us/our-standards/**

School feedback: ‘While studying Cambridge IGCSE and Cambridge International A Levels, students broaden their horizons through a global perspective and develop a lasting passion for learning.’

Feedback from: Zhai Xiaoning, Deputy Principal, The High School Affiliated to Renmin University of China

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