QCAA Psychology EP Curriculum Map

Units 1 - 4

Communicating in Science

Content Descriptor	EP Lessons	
	1. Using Cognitive Verbs • Bloom's Taxonomy • ALARM • Remembering and Understanding • Applying and Analysing • Evaluating and Creating • Definitions: Scientific Verbs • A New Taxonomy • Retrieve and Comprehend	**2. Writing a Scientific Report** • Writing a Scientific Report (Beginner) • Scientific Report Outline PDF • Writing a Scientific Report (Senior) • Student Worksheet PDF • Teacher Guide PDF • Editable Documents - Word (.docx) • Spelling: Scientific Method

Unit 1: Individual Development

Content Descriptor	EP Lessons

• distinguish between psychology, psychiatry and social work
• explain the philosophical debates within psychology, including free will versus determinism, and nature versus nurture
• summarise the steps in the scientific method as used in all psychological research, including
  ○ identify the research question
  ○ formulate a null hypothesis and an alternative hypothesis
  ○ design the method
  ○ collect the data
  ○ process data, and analyse and evaluate evidence report the findings.
	Topic 1: Psychological Science A
	
	• Introduction to Psychology
	• The Scientific Method
	• Sampling Methods and Experimental Designs
	• Data Collection
	• Quality of Research
	• Interpreting Data
	• Correlational Research Design
	• Ethical Considerations

• summarise the mind-versus-body problem, with reference to the Greek physician Claudius Galen and the French philosopher René Descartes
• describe early brain investigative techniques including phrenology (Franz Gall in Sabbatini 1997) and brain experiments (Pierre Flourens; Wilder Penfield in Kumar & Yeragani 2011)
• explain how neuroimaging techniques can be used to enhance the understanding of brain–behaviour relationships, e.g.
  ○ positron emission tomography (PET)
  ○ magnetic resonance imaging (MRI)
  ○ functional magnetic resonance imaging (fMRI)
  ○ electroencephalogram (EEG)
• recognise the basic structure and function of the human nervous system, including the central (i.e. brain and spinal cord) and peripheral (i.e. somatic and autonomic) nervous systems
• construct a diagram of a neuron, including the axon, dendrites, the cell body and synapse
• distinguish between sensory, motor and interneurons
• consider that the brain can be divided into a number of discrete areas, including the hindbrain, midbrain and forebrain
• understand the role of specific brain regions in localisation of function, including Broca's area, Wernicke's area and Geschwind's territory.
	Topic 2: The Role of the Brain
	
	• Moving from Philosophy to Psychology
	• Early Brain Investigative Techniques
	• Neuroimaging Techniques
	• The Cells of the Nervous System
	• Structure and Function of the Nervous System
	• Structure of the Brain

• understand infancy and adolescence as periods of rapid development and changes in brain structure and function, with reference to myelin, synaptic pruning and the forebrain (frontal lobe) • communicate the nature of neural plasticity with reference to brain development (deprived versus enriched environments) and brain damage • consider timing of experiences on psychological development with reference to sensitive and critical periods • summarise the role of attachment in psychological development with reference to the work of Konrad Lorenz (1937), Harry Harlow (in Harlow & Zimmermann 1958), John Bowlby (1969) and Mary Ainsworth (in Ainsworth, Blehar, Waters & Wall 1978) • understand that early abuse or deprivation can have detrimental effects on cognitive development (Michael Rutter 2004) • discuss cognitive (Jean Piaget 1936), sociocultural (Lev Vygotsky 1978) and information processing theories (i.e. processing speed, cognitive strategies and metacognition) of cognitive development.	**Topic 3: Cognitive Development** • Developmental Plasticity • Adaptive Plasticity • Plasticity and the environment • Timing of Experiences on Psychological Development • Attachment: Bowlby • Attachment - Ainsworth • Attachment - Harlow and Lorenz • The impact of early abuse and deprivation • Piaget: Cognitive Developmental Theory • Vygotsky: Sociocultural Theory • Information Processing Theory
• construct a continuum of arousal, from sleep through to hyperarousal • distinguish between selective and divided attention • explain how brain structures (i.e. hypothalamus) and hormones (i.e. melatonin) regulate and direct consciousness • recall the techniques used to measure consciousness, including electroencephalography (EEG), electromyography (EMG), and electrooculography (EOG) • describe the sleep–wake cycle, with reference to the stages of sleep, including rapid eye movement (REM) and non-rapid eye movement (NREM) sleep • describe the purpose of sleep by comparing the restoration and evolutionary theories • summarise the changes in the sleep–wake cycle across the life span, including the sleep-wake shift (in Mary Carskadon 2011) in adolescence • recognise the physical and psychological consequences of total and partial sleep deprivation, including effects on concentration and mood • compare common sleep disorders including narcolepsy, sleep-onset insomnia, sleep apnoea and sleep walking • evaluate treatment interventions for sleep disorders, including cognitive behavioural therapy for insomnia, and bright light therapy for circadian phase disorders. • **Mandatory practical:** Use a correlational research design to conduct an investigation into the relationship between normal hours of sleep and one other variable (e.g. listening to music, food before bed, amount of exercise in the day, reading on electronic devices).	**Topic 4: Human Consciousness and Sleep** • Consciousness and Attention • Regulating Consciousness • Measuring Consciousness • Ultradian Rhythms and Stages of Sleep • Purpose of Sleep • Sleep-wake Shift in Adolescence • Sleep Deprivation • Sleep Disorders • Treatments and Interventions for Sleep Disorders • Practical Investigation: Sleep

Unit 2: Individual Behaviour

Content Descriptor	EP Lessons

• recall the distinction between psychology, psychiatry and social work
• recall the philosophical debates within psychology, including free will versus determinism, and nature versus nurture
• recall the steps in the scientific method used in all psychological research, including
  ○ identify the research question
  ○ formulate a null hypothesis and an alternative hypothesis
  ○ design the method
  ○ collect the data process data, and analyse and evaluate evidence
  ○ report the findings.
	Topic 1. Psychological Sense B
	
	• Psychological Science Review

• compare the multiple intelligences (Howard Gardner 2017), information processing, and emotional intelligence (EQ) theories of intelligence
• recognise common methods by which intelligence is assessed with reference to intelligence tests and scales
  ○ intelligence quotient (IQ)
  ○ Stanford–Binet scale
  ○ Wechsler's intelligence scales for adults (WAIS-IV) and children (WISC-IV)
• describe whether intelligence tests are valid and reliable
• assess the extent intelligence is inherited, with reference to twin, family and adoption studies (e.g. the Minnesota study of twins reared apart in Bouchard, Lykken, McGue, Segal & Tellegen 1990).
	Topic 2: Intelligence
	
	• Theories of Intelligence
	• Measuring Intelligence
	• Reliability and validity of intelligence tests
	• Biological Model of Intelligence
	• Environmental influences on intelligence
	• Heritability of Intelligence

• distinguish between adaptive and maladaptive behaviour • summarise concepts of normality, including the sociocultural, functional, historical, situational, medical and statistical approaches • describe psychological disorder • distinguish between diagnostic manuals commonly used for diagnosis, including the *Diagnostic and Statistical Manual of Mental Disorders* (5th edition, 2013), and the *International Classification of Diseases* (10th revision, 2016) • recognise the main categories of psychological disorders, including the schizophrenia spectrum and other psychotic disorders (e.g. schizophrenia), mood disorders (e.g. depression), anxiety disorders (e.g. phobias) and personality disorders (e.g. borderline or antisocial personality disorder) • discuss the reliability and validity of diagnosis.	**Topic 3: Diagnosis** • Normality • Adaptive and Maladaptive Behaviours • Psychological Disorders • Diagnosing mental illness • Categories of Psychological Disorders • Anxiety Disorders and Phobias • Perceived Causes of Anxiety Disorders

• describe the biopsychosocial (George Engel 1980) approach to understanding psychological disorder • summarise biological (genes, medication, sleep, substance use); psychological (rumination, impaired reasoning and memory, stress); and social (disorganised attachment, significant relationships) risk factors for psychological disorder • examine the prevalence, symptoms and perceived causes of anxiety disorders, including generalised anxiety disorder (GAD) and specific phobia • describe the impact of stigma on help-seeking behaviours • compare the use of psychotherapies, pharmacotherapies, electroconvulsive therapy (ECT) and psychosurgery in the treatment of psychological disorder • explain the placebo effect.	**Topic 4: Psychological Disorders and Treatments** • Risk and Protective Factors • Biological Risk Factors • Psychological risk factors • Social Risk Factors • Cumulative Risk Factors • Stigma and Mental Health • The Biopsychosocial Model • Treatments of Psychological Disorders
• compare the two-factor (Stanley Schachter and Jerome Singer 1962) and appraisal (Richard Lazarus 1982) theories of emotion • **Mandatory practical:** Use an experimental research design to investigate the effect of watching emotive (e.g. a scary movie) versus informative (e.g. an advertisement for toothpaste) stimuli on emotional responses (measured as changes in heart rate). • explain the biological nature of cognitive appraisal, with reference to findings from the 2008 fMRI study by Kevin Ochsner and James Gross • describe factors that influence happiness • assess the degree to which subjective wellbeing (Ed Diener 1984), psychological wellbeing (Carol Ryff 1995), and the broaden-and-build theory (Barbara Fredrickson 2004) influence happiness • explain mindfulness, with reference to attention and acceptance • analyse the positive consequences of the flow experience (Jeanne Nakamura and Mihaly Csikszentmihalyi 2002), with reference to enhancing positive affect, life satisfaction, performance and learning • evaluate the achievement goal (task orientation and ego orientation), cognitive evaluation (intrinsic and extrinsic motivation), and self-efficacy (outcome expectations and efficacy expectations) theories of motivation • describe the role of goal setting in motivation (Edwin Locke et al. 1981).	**Topic 5: Emotion and Motivation** • Comparing Theories of Emotion • Cognitive Appraisal • Happiness • Wellbeing and Happiness • Mindfulness • The Flow Experience • Theories of Motivation • Goal Setting Theory of Motivation

Unit 3: Individual Thinking

Content Descriptor	EP Lessons
• recall the structure of the human nervous system, with reference to the central (i.e. brain and spinal cord) and peripheral (i.e. somatic and autonomic) nervous systems • describe the role of the spinal cord in the human nervous system, with reference to the spinal reflex • recognise that the cerebral cortex can be divided into a number of discrete areas, which have specific functions, including the frontal, occipital, parietal and temporal lobes • recall that language processing occurs within Broca's area, Wernicke's area, and Geschwind's territory • recognise that voluntary movement is coordinated from the primary motor cortex, cerebellum and basal ganglia • recognise that emotion occurs within the limbic system, amygdala and prefrontal cortex • communicate neurotransmission using a diagram • distinguish between excitatory and inhibitory neurotransmitters, with reference to glutamate (Glu) and gamma-amino butyric acid (GABA) • compare the physical and psychological function of acetylcholine, epinephrine, norepinephrine, dopamine and serotonin • discuss the impact of interference in neurotransmitter function, with reference to Parkinson's disease and Alzheimer's disease (symptoms and treatments).	**Topic 1: Localisation of Function in the Brain** • Structure of the Central and Peripheral Nervous System • Spinal Reflex • Cerebral Cortex • Language Processing • Voluntary Movement • Emotion • Neurotransmission • Excitatory and Inhibitory Systems • Physical and Psychological Function of Various Chemicals • Parkinson's Disease • Alzheimer's Disease

• explain the process of visual perception, with reference to reception (visible light spectrum); transduction (photoreceptors, receptive fields); transmission (visual cortex); selection (feature detectors); and organisation and interpretation (visual perception principles)
• determine biological influences on visual perception, including physiological make-up, ageing and genetics
• explain psychological influences on visual perception including:
  ○ perceptual set (past experience, context, motivation and emotional state)
  ○ visual perception principles (Gestalt, depth cues, and visual constancies)
• evaluate the impact of social influences on visual perception, with reference to cultural skills (Hudson 1960; Deregowski 1972; Deregowski, Muldrow & Muldrow 1972)
• analyse the fallibility of visual perception, with reference to the Müller-Lyer, Ames room, and Ponzo visual illusions, as well as ambiguous and impossible figures.
	Topic 2: Visual Perception
	
	• Visual Perception
	• Biological influences on Visual Perception
	• Psychological influences: Perceptual set
	• Psychological Influences: Visual Perception Principles
	• Social Influences: Hudson (1960) - Pictorial Depth Perception in Sub-Cultural Groups in Africa
	• Social Influences: Deregowski (1972) - Pictorial Perception and Culture
	• Social Influences: Deregowski et al. (1972) - Pictorial Representation in a Remote Ethiopian Popu
	• Fallibility of Visual Perception

• recognise the duration and capacity of sensory memory (including iconic and echoic), and short-term and long-term memory
• evaluate two models of memory, including
  ○ the working model of memory (Alan Baddeley and Graham Hitch 1974), including the central executive, phonological loop, visuospatial sketchpad, and episodic buffer
  ○ the levels of processing (LOP) model of memory, including the role of encoding in long-term memory
• explain how information is stored in long-term memory with reference to implicit (procedural) and explicit (episodic and semantic) memory
• describe the role of the hippocampus in memory formation and storage
• consider the role of the cerebellum in forming and storing implicit (procedural) memories
• distinguish between recall, recognition and relearning
• describe how information is lost from memory through encoding failure, retrieval failure and interference effects
• discuss strategies to improve memory, including chunking, rehearsal (maintenance and elaborative) and mnemonics (e.g. the method of loci and SQ4R method — survey, question, read, recite, relate, and review).
• **Mandatory practical:** Use an experimental research design to investigate the effect of learning environment on memory, replicating aspects of the 1998 investigation by Harry Grant et al.
	Topic 3: Memory
	
	• Introduction to Memory
	• Sensory Memory
	• Short-term Memory
	• Long-term Memory - Levels of Processing
	• Long-term Memory - Implicit and Explicit Memory
	• Hippocampus
	• Cerebellum
	• Types of retrieval
	• Memory Loss
	• Improving Memory

• compare classical conditioning (Ivan Pavlov 1897/1902), operant conditioning (BF Skinner 1948) and social learning theory (Albert Bandura 1977)
• for classical conditioning
  ○ recall the unconditioned stimulus (UCS), unconditioned response (UCR), neutral stimulus (NS), conditioned stimulus (CS) and conditioned response (CR)
  ○ distinguish between stimulus generalisation and discrimination
  ○ describe extinction and spontaneous recovery
  ○ describe learned fear responses (John Watson — the 'Little Albert' experiment) (Watson & Rayner 1920)
• for operant conditioning
  ○ distinguish between negative and positive reinforcement and punishment describe stimulus generalisation and discrimination
  ○ describe extinction and spontaneous recovery
• for social learning theory
  ○ distinguish between modelling and vicarious conditioning.
	Topic 4: Learning
	
	• Classical Conditioning
	• Operant Conditioning
	• Social Learning Theory
	• Comparing Learning Theories

Unit 4: The Influence of Others

Content Descriptor	EP Lessons
• explain the difference between primary (family) and secondary (media, schooling) socialisation • describe gender and compare social learning, cognitive developmental and biology-based theories of gender role formation • describe group social influence, with reference to compliance, identification and internalisation • deduce how status and power operate in groups, with reference to the Stanford Prison experiment (Haney, Banks & Zimbardo 1973) • predict how obedience, conformity and social norms (Robert Cialdini et al. 2006) lead to behaviour change • evaluate historical social psychological research, with reference to studies conducted by Stanley Milgram (1963) and Solomon Asch (1951).	**Topic 1. Social Psychology** • Primary and Secondary Socialisation • Theories of Gender-Role Formation • Groups, Status and Power • Group Influences on Behaviour • Historical Social-Psychological Research
• analyse Bibb Darley and John Latane's (1968) model of bystander intervention • describe social factors that influence prosocial behaviour, with reference to the reciprocity principle and social responsibility • describe personal characteristics that influence prosocial behaviour, with reference to empathy, mood, competence and altruism • consider factors that influence antisocial behaviour, including groupthink, diffusion of responsibility, audience inhibition, social influence and cost–benefit analysis • discuss the general aggression model (GAM) • explain how media can influence aggression, with reference to advertising, video games and social media • describe biological theories of attraction (Buss, Abbott, Angleitner, Asherian, Biaggio et al. 1990) • recognise social and cognitive origins of attraction, including proximity, reciprocity and similarity • predict why relationships change and end, with reference to Duck's stages of dissolution (i.e. intrapsychic stage, dyadic stage, social stage, grave-dressing stage and resurrection stage) (Stephanie Rollie and Steve Duck 2006).	**Topic 2. Interpersonal Processes** • The Bystander Effect • Prosocial Behaviour • Antisocial Behaviour • Aggression • Aggression and Media • Biological Theories of Attraction • Social and Cognitive Origins of Attraction • Relationship Dissolution

• describe implicit and explicit attitudes • predict how discrepancies between attitudes and behaviours can lead to cognitive dissonance (Leon Festinger 1957) • evaluate social identity theory (Henry Tajfel 1970), with reference to social categorisation, social identification and social comparison • describe attributions, and recognise how attributions are used to explain behaviour, with reference to situational and dispositional attributions, and the fundamental attribution error (Lee Ross et al. 1977) • contrast self-serving and confirmation biases • describe stereotypes using the tri-component model of attitudes • distinguish between prejudice and discrimination • describe scapegoating, direct experience, personal and group prejudice and the prejudiced personality • prejudice can be on the basis of social differences; describe prejudice expressed as sexism and ageism. • **Mandatory practical:** Use a correlational research design to investigate the relationship between stereotypes and behaviour by replicating the 1996 investigation by John Bargh, Mark Chen and Lara Burrows (Experiment 2).	**Topic 3. Attitudes** • Attitudes and Cognitive Dissonance • Social Identity Theory • Attribution • Biases • Stereotypes & Tri-component Model of Attitudes • Prejudice & Discrimination • Social Differences: Sexism and Ageism • Mandatory Practical: Bargh, Chen & Burrows (1996)
• describe how membership, influence, integration and the fulfilment of needs, and shared emotional connection lead to a sense of community (David McMillan and David Chavis 1986) • consider what is meant by culture • distinguish between multiculturalism and pluralism • examine the psychological challenges of immigration, including culture shock, acculturation and assimilation • consider how cultural diversity can sometimes be a source of conflict, with reference to prejudice expressed as racism (implicit and explicit) • describe ways to reduce prejudice, with reference to intergroup contact, sustained contact, superordinate goals, mutual interdependence and equality (equal-status contact).	**Topic 4: Cross-Cultural Psychology** • Community and Culture • Multiculturalism and Pluralism • Immigration • Cultural Diversity • Reducing Prejudice