

Name of Unit – Psychology Unit 3	Sample outline
Area of Study – The Conscious Self	

Learning Outcomes	Content / Topic	Teaching / Learning Activity	Duration	Assessment	Resources
<p>Area of Study1 Mind, brain and body</p> <p>Outcome 1 On completion of this unit the student should be able to explain the relationship between the brain, states of consciousness including sleep, and behaviour, and describe the contribution of selected studies and brain research methods to the investigation of brain function.</p>	<ul style="list-style-type: none"> consciousness as a psychological construct informed by the work of René Descartes and William James concepts of normal waking consciousness and altered states of consciousness, including daydreaming, meditative and alcohol-induced, in terms of levels of awareness, content limitations, controlled and automatic processes, perceptual and cognitive distortions, emotional awareness, self-control and time orientation 	<p>use the Internet to devise a PowerPoint outlining the work of René Descartes and William James in explaining consciousness</p> <p>facilitate a class debate on the topic of the ‘mind-body’ distinction as outlined by Rene Descartes</p> <p>visit the Melbourne Museum to view ‘The Mind’ exhibition (www.museumvictoria.com.au)</p> <p>use a ‘compare and contrast’ graphic organiser to discuss the concepts of normal waking consciousness and altered states of consciousness</p> <p>role-play in groups normal waking consciousness and altered states of consciousness, emphasising levels of awareness, content limitations, controlled and automatic processes, perceptual and cognitive distortion, emotional awareness, self-control and time-orientation</p>	Week 1		<p>TEXTBOOKS:</p> <p>Cambridge: Uncovering Psychology VCE Units 3 & 4. ISBN: 9780521130295</p> <p>Macmillan: Psychology VCE Units 3 & 4, 4th ed. ISBN: 9781420229387</p> <p>Nelson: Nelson Psychology Units 3 & 4 Student Book & CD. ISBN: 9780170182966</p> <p>Nelson: The Psych Book VCE Units 3 & 4, 4th ed. ISBN: 9780170181723</p> <p>Nelson: The Psych Book VCE Units 3 & 4 Teacher Manual. ISBN: 9780170181747</p> <p>Nelson: A+ Psychology Notes Unit 3. ISBN : 9780170180597</p> <p>Nelson: A+ Psychology Notes Unit 4. ISBN : 9780170180603</p> <p>Oxford: VCE Psychology Units 3 & 4 Student Book. ISBN: 9780195567175</p>

	<ul style="list-style-type: none"> • sleep as an altered state of consciousness: purpose, characteristics and patterns of the stages of sleep including rapid eye movement (REM) and the non-rapid eye movement (NREM) stages of sleep • methods used to study the level of alertness in normal waking consciousness and the stages of sleep: <ul style="list-style-type: none"> – measurement of physiological responses including electroencephalograph (EEG), electrooculargraph (EOG), heart rate, body temperature and galvanic skin response (GSR) – the use of sleep laboratories, video monitoring and self reports 	<p>create a poster that compares normal waking consciousness with altered states of consciousness with respect to the dimensions specified in the study design</p> <p>use data logging technology to investigate measures of physiological responses, for example galvanic skin response (GSR) and heart rate</p> <p>investigate a physiological characteristic, such as heart rate, just before falling asleep and when fully alert.</p> <p>Produce a poster presenting the characteristics of stages of sleep; include diagrams of brain wave patterns</p> <p>divide an A3 sheet into four sections headed EEG, EOG, GSR and heart rate/ body temperature; use the Internet to find examples of recordings of each of these and annotate each recording on your poster table to show how each may be interpreted</p> <p>visit a sleep laboratory or go online to learn about the stages of sleep and what is done at a sleep</p>	<p>Week 2</p>	<p>Essay- demonstrate your understanding of 'consciousness' as a psychological construct with reference to normal waking consciousness and altered states of consciousness</p> <p>Presentation - create a PowerPoint presentation to compare and contrast altered states of consciousness</p>	<p>STUDENT WORKBOOKS:</p> <p>Cambridge: Uncovering Psychology Units 3 & 4 Work Book. ISBN: 9780521130318</p> <p>Nelson: Nelson Psychology VCE Units 3 & 4 Student Activity Manual. ISBN: 9780170182980</p> <p>Nelson: A+ Psychology Exam 1, Unit 3 Workbook CD. ISBN: 9780170180634</p> <p>Nelson: A+ Psychology Exam 2, Unit 4 Workbook CD. ISBN: 9780170180610</p> <p>Oxford: VCE Psychology Units 3 and 4 Work Book. ISBN: 9780195567182</p> <p>MULTIMEDIA:</p> <p>Jacaranda: StudyOn-Psychology Units 3&4</p> <p>Cambridge: Uncovering Psychology Units 3 & 4 Teacher CD Rom</p> <p>Nelson: Nelson Psychology VCE Units 3 & 4 Teacher Resource CD. ISBN: 9780170185219</p> <p>PsychNow! CD-ROM Version 2.0 Interactive Experiences in</p>
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	<ul style="list-style-type: none"> • the effects of total and partial sleep deprivation: <ul style="list-style-type: none"> – loss of REM and NREM sleep – sleep recovery patterns including amount of sleep required, REM rebound and microsleeps – sleep-wake cycle shifts during adolescence compared with child and adult sleep including delayed onset of sleep and need for sleep (1963a, 1963b) 	<p>laboratory</p> <p>suggest a research design that could be used to investigate the effects of partial or total sleep deprivation; consider single- and double-blind procedures, repeated measures, independent groups and matched-participants designs</p> <p>conduct research to gather data on sleep patterns with participants across a range of ages using sleep diaries</p> <p>collect rosters of various organisations that involve shift-work; analyse in terms of sleep-wake cycle shifts and their effectiveness in minimising sleep deprivation</p>	<p>Week 3</p>	<p>Presentation - Use the Internet to research information to develop a presentation that describes the methods used to study sleep, the stages of sleep and the effects of sleep deprivation.</p> <p>Report of a Research Investigation – write a report of the research investigation into sleeping patterns in different age groups</p> <p>Data Analysis - devise a questionnaire for students to research friends and family members regarding their sleep patterns; report back to the class, use a spreadsheet tool to analyse amount of sleep required, sleep-wake cycle shifts during adolescence and the need for sleep</p>	<p>Psychology , 1st Edition Wadsworth Publishing, ISBN-10: 0534590462 ISBN-13: 9780534590468</p> <p>PsykTrek 3.0: A Multimedia Introduction to Psychology (CD-ROM), Wadsworth Publishing, ISBN-10: 0495090352, ISBN-13: 9780495090359</p> <p>INSTITUTIONS:</p> <p>Melbourne Museum (The Mind Exhibition), http://museumvictoria.com.au/the-mind</p> <p>Brain Sciences Institute (BSI) - Swinburne University www.swinburne.edu.au/lss/bsi/</p> <p>Howard Florey Institute Australia's Brain Research Institute www.florey.edu.au/</p> <p>INTERNET:</p> <p>: American Psychological Society, http://www.apa.org/ed/</p> <p>The Australian Psychological Society, http://www.psychology.org.au/</p> <p>ABC Science, http://www.abc.net.au/science/</p>
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	<ul style="list-style-type: none"> • the interaction between cognitive processes of the brain and its structure including: <ul style="list-style-type: none"> – roles of the central nervous system, peripheral nervous system (somatic and autonomic), and autonomic nervous system (sympathetic and parasympathetic) 	<p>create a chart of the divisions of the nervous system including central nervous system and both divisions of the peripheral nervous system</p> <p>construct a concept map depicting the roles of the central nervous system, peripheral nervous system, and the autonomic nervous system</p> <p>provide examples of the effects of each division of the autonomic nervous system on: heart rate; galvanic skin response; pupils; bladder; lungs; digestion</p> <p>visit the Psychworld University website at http://inst.santafe.cc.fl.us/~mwehr/ or visit the 'Neuroscience for Kids' website for activities and tutorials to collect information to explain the role of the somatic nervous system and the autonomic nervous system</p> <p>produce a poster outlining the areas and main roles of the sympathetic and parasympathetic nervous system</p> <p>using chalk and concrete (outdoors) or butcher's paper and texta pens (indoors), students, in pairs, trace a life-sized outline of each other's body; each student then uses their own outline to fill in each division of the human nervous system, using a different colour for each division; labels should be added which</p>	<p>Week 4</p>	<p>Folio - create a folio of a range of related experiments, demonstrations and activities (eg from textbooks and neuroscience for kids website) exploring the nervous system</p>	<p>The Age Newspaper, http://www.theage.com.au/issues/science/index.html</p> <p>The Herald Sun Newspaper, http://www.heraldsun.com.au/lifestyle/health-science</p> <p>Neuroscience for Kids – Intended for elementary and secondary school students and teachers who are interested in learning more about the nervous system and brain. http://faculty.washington.edu/chudler/synapse.html</p> <p>Alzheimer's Australia – The peak body providing support and advocacy for people living with dementia. Includes sections on services, support, education, training and a help line. www.alzheimers.org.au/</p>
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	<p>– roles of the four lobes of the cerebral cortex in the control of motor, somatosensory, visual and auditory processing in humans; primary cortex and association</p>	<p>indicate the function of each of the divisions</p> <p>use multimedia CD-ROMs (such as PsykTrek and PsychNow) to explore the divisions of the nervous system and lobes of the cerebral cortex</p> <p>draw a diagram of the human brain and parts of the nervous system, labelling the two hemispheres, the four lobes of the cerebral cortex, Broca’s area and Wernicke’s area; describe the roles of each part</p> <p>dissect a sheep’s brain; identify the hindbrain, midbrain and the forebrain (lambs’ brains may be purchased from supermarkets or from a butcher), or conduct a virtual dissection through the Whole Brain Atlas website or at www.exploratorium.edu/memory/braindissection/index/html</p> <p>create a multimedia simulation of the structure and function of the brain</p> <p>using clay or other similar material, construct a 3-D model of the brain using different colours to code for different brain structures; develop a key to explain the function of each structure</p>	<p>Week 5</p>		<p>PROFESSIONAL DEVELOPMENT:</p> <p>Subject Association: The Science Teachers’ Association of Victoria, http://www.stav.vic.edu.au/home, http://www.stav.org.au/ (workshops notes available on CDROM from past conferences)</p> <p>PsyEd, Psychology Teachers Conference http://home.vicnet.net.au/~psyed/ (workshops notes available on CDROM from past conferences)</p> <p>MODELS: Plastic model of the brain, obtained from Scientific Pty Ltd.</p>
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	<ul style="list-style-type: none"> • the application and use of brain research methods in investigating the relationship between biological and cognitive factors of human behaviours including: <ul style="list-style-type: none"> – direct brain stimulation and transcranial magnetic stimulation (TMS) – brain recording and imaging techniques: computed tomography (CT), positron emission tomography (PET), single photon emission computed tomography (SPECT), magnetic resonance imaging (MRI), and functional magnetic resonance imaging (fMRI) • research methods and ethical principles associated with the study of the brain and states of consciousness, as outlined in the introduction to the unit. 	<p>work of research institutions involved in the study of perceptual anomalies.</p> <p>in groups, students research one of the following and then present a PowerPoint to the rest of the class: direct brain stimulation, transcranial magnetic stimulation (TMS), computed tomography (CT), positron emission tomography (PET), single photon emission computed tomography (SPECT), magnetic resonance imaging (MRI) and functional magnetic resonance imaging (fMRI)</p> <p>research the use of brain-imaging techniques on the Internet; Google images to demonstrate applications of brain imaging techniques such as CT, PET, SPECT, MRI and fMRI</p> <p>Integrated throughout unit</p>	<p>Week 8</p>	<p>TEST – create a test using variety of question types to assess the knowledge and skills across the entire unit.</p>	
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<p>Area of Study2 Memory</p> <p>Outcome 2 On completion of this unit the student should be able to compare theories that explain the neural basis of memory and factors that affect its retention, and evaluate the effectiveness of techniques for improving and manipulating memory.</p>	<ul style="list-style-type: none"> • mechanism of memory formation: <ul style="list-style-type: none"> – role of the neuron in memory formation informed by the work of E. Richard Kandel – roles of the hippocampus and temporary lobe – consolidation theory – memory decline over the lifespan – amnesia resulting from brain trauma and neurodegenerative diseases including dementia and Alzheimer’s disease 	<p>use clay or playdough to make a model with information that outlines the role of the neuron in memory formation as informed by the work of Kandel</p> <p>construct a poster to outline the main processes involved in memory formation.</p> <p>view YouTube video footage of Clive Wearing and his memory deterioration; discuss student perceptions of his life as his memory declines</p> <p>using your knowledge of memory decline over the lifespan, design a set of activities for a nursing home that could help enhance patients’ memory</p> <p>invite a guest speaker such as a social worker or health care worker to talk about the decline of memory over the lifespan and the impact of amnesia including dementia and Alzheimer’s disease</p> <p>visit the Alzheimer’s Association of Victoria website and gather information to present to the rest of the class on strategies to cope with the disease; present as a speech, PowerPoint or poster</p>	<p>Week 9</p>		
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	<ul style="list-style-type: none"> • comparison of models for explaining human memory: <ul style="list-style-type: none"> – Atkinson-Shiffrin’s multi-store model of memory including maintenance and elaborative rehearsal, serial position effect and chunking – Alan Baddeley and Graham Hitch’s model of working memory: central executive, phonological loop, visuo-spatial sketchpad, episodic buffer – levels of processing as informed by Fergus Craik and Robert Lockhart – organisation of long-term memory including declarative and episodic memory, and semantic network theory 	<p>investigate organic causes of forgetting – amnesia, its characteristics and causes view one of the following films: The Notebook, Memento or 50 First Dates and prepare a short report on the aspect of memory depicted in the film viewed</p> <p>use PhotoStory to outline the journey a piece of incoming sensory information takes from when a person first pays attention to it until it is stored in long-term memory, based on the Atkinson-Shiffrin multi-store model of memory</p> <p>create a flow-chart diagram that summarises Atkinson-Shiffrin’s multi-store model of memory and/or Baddeley and Hitch’s model of working memory</p> <p>use a ‘compare and contrast’ graphic organiser to compare the Atkinson-Shiffrin’s multi-store model of memory and Baddeley and Hitch’s model of working memory</p> <p>use a Venn diagram to outline the similarities and differences between maintenance and elaborative rehearsal divide an A3 sheet of paper into four sections with the central heading of ‘Baddeley and Hitch – Model of Working Memory’; name each section:</p>	<p>Week 10</p>	<p>Presentation - use a graphic organiser to the models for explaining human memory</p> <p>Folio - create a folio of a range of related experiments, demonstrations and activities (eg from textbooks and neuroscience for kids website) exploring human memory.</p>	
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	<ul style="list-style-type: none"> • manipulation and improvement of memory: <ul style="list-style-type: none"> – forgetting curve as informed by the work of Hermann Ebbinghaus – measures of retention including the relative sensitivity of recall, recognition and relearning – use of context dependent cues and state dependent cues 	<p>of motivated forgetting and the related work of Freud</p> <p>use a 'Storyboard' graphic organiser to outline the different psychological theories of forgetting (retrieval failure, motivated forgetting, interference theory, decay theory) in terms of their strengths and limitations</p> <p>use multimedia CD-ROMs (such as PsykTrek and PsychNow) to explore and compare models explaining human memory discuss the various means of measuring retrieval and the relative sensitivity of each measure</p> <p>use spreadsheet software to analyse data relating to measures of central tendency and spread of scores for tests of memory retention undertaken by the class (these tests may be sourced from various textbooks)</p> <p>conduct a memory activity to compare the differences in recalling and recognising nonsense syllables; utilise a spreadsheet package to plot the forgetting curve based on class data</p> <p>summarise Ebbinghaus' research and draw the forgetting curve</p> <p>simulate Ebbinghaus' original experiments on the forgetting curve</p>	<p>Week 13</p>	<p>Research Report - evaluate the sensitivity of each type of recall; divide the class up into three groups; provide students with the names of 10 famous people and allow them 30 seconds to learn as many as possible in order; after 30 seconds provide each group with a recall sheet with one of the following: Group A – free recall, Group B – serial recall; Group C – cued recall (piece of paper with the initials of the famous people)</p>	
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		<p>by memorising a list of nonsense syllables and measuring retention at various intervals over a number of weeks</p> <p>role-play in small groups examples of the following: maintenance rehearsal, elaborative rehearsal, serial position effect, chunking and consolidation theory</p>			
	<p>– mnemonic devices including acronyms, acrostics, peg-word method, narrative chaining and method of loci</p>	<p>use the Internet to research mnemonic devices and create a multimedia presentation ‘Study strategies to assist encoding and retrieval’ to inform the class</p> <p>use a fish-bone diagram to outline how mnemonic devices and context- and state dependent cues can be used to manipulate and enhance memory</p>	Week 14	<p>Research Report - undertake a research investigation into the relevant effectiveness of various mnemonic devices for recalling simple list of items; critically evaluate the experimental design</p>	
	<p>- effect of misleading questions on eye-witness testimonies including the reconstructive nature of memory informed by the work of Elizabeth Loftus</p>	<p>research the Internet for material related to the fallibility of eye-witness testimony and the work of Loftus; this may include relevant clips available on YouTube</p>	Week 15	<p>Evaluation of research – evaluate studies related to the fallibility of memory.</p>	
	<p>• research methods and ethical principles associated with the study of memory, as outlined in the introduction to the unit.</p>	<p>Integrated throughout unit</p>			

		<p>Revision</p> <p>use a crossword generator program (e.g. Eclipse Crossword www.eclipsecrossword.com/) to create a crossword using the key definitions of concepts related to memory</p> <p>Exam Revision</p>	Week 16	<p>TEST – create a test using variety of question types to assess the knowledge and skills across the entire unit.</p>	
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