DP unit planner 1

Teacher(s)	Jon Sprunger	**Subject group and course**	Group 3 -- IB Psychology SL		
Course part and topic	Biological Approach	**SL or HL/Year 1 or 2**	SL -- 1	**Dates**	March 2023
Unit description and texts		**DP assessment(s) for unit**			
Unit - Biopsychology Approach Text – Psychology Course Companion 2nd Edition Popov, Parker, Seath, Oxford University Press 2017		Sample SAQ Questions, Sample Extended Essay Questions			

INQUIRY: establishing the purpose of the unit

Transfer goals

List here one to three big, overarching, long-term goals for this unit. Transfer goals are the major goals that ask students to "transfer" or apply, their knowledge, skills, and concepts at the end of the unit under new/different circumstances, and on their own without scaffolding from the teacher.

Causes for all human behaviour can be explained through the influences of both nature and nurture. The Biological Approach to human behaviour arguably counts for 50% or our behaviour, but is only 1 of 3 approaches. The biological influence will need to be carried over into the following units. Examples are as follows:

Cognitive Approach 1) Memory – hippocampus, amygdala, medial temporal lobe, acetylcholine, traumatic brain injuries

2) Emotion – flashbulb memory, amygdala, Joseph LeDoux's fast pathway to memory, anterior cingulated cortex (ACC)

Abnormal Psychology	1) Genetic connection to mental illness (depression, anxiety, schizophrenia, addictions…) 2) Neurotransmitters and mental illness (depression, anxiety, schizophrenia)

ACTION: teaching and learning through inquiry

Content/skills/concepts—essential understandings	**Learning process** *Check the boxes for any pedagogical approaches used during the unit. Aim for a variety of approaches to help facilitate learning.*
<u>Students will know the following content: (Knowledgeable)</u> Evolutionary Psychology Biology and Ethics Biology of the Neuron Neural Communication Neural Chemistry Localization of Function Technology & Research Brain Plasticity Hormones Pheromones Genetics and Behaviour	Learning experiences and strategies/planning for self-supporting learning: ☒ Lecture ☐ Socratic seminar ☒ Small group/pair work ☒ PowerPoint lecture/notes ☐ Individual presentations ☐ Group presentations ☐ Student lecture/leading ☒ Interdisciplinary learning Details: ☐ Other/s:

Students will develop the following skills: (Communicators, Thinkers) - Can explain how principles that define the biological approach to psych may be demonstrated in research (that is, theories and/or studies) and are able to support various theories in human behaviour. - Can discuss how and why particular research methods are used at the biological approach to psych (for example, experiments, observations, correlational studies and case studies). - Can discuss ethical considerations related to research studies and genetic research at the biological approach to human behaviour. (Principled) Students will grasp the following concepts: (Knowledgeable) - Outline principles that define the biological approach to psych (such as, patterns of behaviour can be inherited; animal research may inform our understanding of human behaviour; cognitions, emotions and behaviours are products of the anatomy and physiology of our nervous and endocrine systems) - Explain one study related to localization of function in the brain (for example, Wernicke, Broca, Gazzaniga and Sperry, Lashley, Maguire). - Explain the concept of neuroplasticity and support the explanation with the use of studies (for example, Draganski, Maguire) -Outline the functioning of healthy neuro communication, including identifying the functions of various parts of the neural cell itself and the electrical and chemical functions. - Using one or more examples, explain effects of neurotransmission on human behaviour (for example, the effect of noradrenaline and serotonin on depression, dopamine on schizophrenia, the concept of love, and its role in Parkinson's). - Using one or more examples, explain functions of two hormones in human behaviour (for example, oxytocin, melatonin, estragon, androgen, and testosterone).	**Formative assessment:** **Question and answer group sessions** **Question and answer individual sessions** **Homeworks – responses/feedback given, but no grade assigned** **Summative assessment:** **Unit Tests** **SAQ and Extended Essay Prompts that are graded** **Graded Reading Assignments** Differentiation: ☒Affirm identity—build self-esteem ☒Value prior knowledge ☒Scaffold learning ☐Extend learning Details:

- Discuss the effects of pheromones on human behaviour. (such as Lundstrom and Olsson (2005) and Hare et al (2017) androstadienone and estratetraenol. - Discuss two effects of the environment on physiological processes (for example, effects of jet lag on bodily rhythms, effects of deprivation on neuroplasticity, effects of environmental stressors on reproductive mechanisms). - Examine one interaction between cognition and physiology in terms of behaviour (for example, agnosia, anosognosia, prosapagnosia, amnesia). Evaluate two relevant studies (such as case studies from Oliver Sacks, Corkin and Milner. - Discuss the use of brain imaging technologies (for example, CAT, PET, EEG fMRI) in investigating the relationship between biological factors and behaviour. - With reference to relevant research studies, to what extent does genetic inheritance influence behaviour? - Examine one evolutionary explanation of behaviour.	

Approaches to learning (ATL)

Check the boxes for any explicit approaches to learning connections made during the unit. For more information on ATL, please see the guide.

☒Thinking

☒Social

☒Communication

☒Self-management

☒Research

Details:

Language and learning *Check the boxes for any explicit language and learning connections made during the unit. For more information on the IB's approach to language and learning, please see the guide.*	**TOK connections** *Check the boxes for any explicit TOK connections made during the unit*	**CAS connections** *Check the boxes for any explicit CAS connections. If you check any of the boxes, provide a brief note in the "details" section explaining how students engaged in CAS for this unit.*
☒Activating background knowledge ☒Scaffolding for new learning ☒Acquisition of new learning through practice ☒Demonstrating proficiency Details:	☒Core theme ☐Optional themes ☒Areas of knowledge Details: Article written by John Pollock entitled "Brain in a Vat." In regards to this lesson, we discuss what it means to be alive. The question at hand is how do we define and identify the human condition of an individual's unique perspective of their sense of reality/consciousness? Do we know that the reality we identify with is true? What does it mean to be alive? Is it possible that our existence is simply a series of electrical stimulations to specific neural cells. Another area within biological approach to psychology that is largely connected to the TOK curriculum is the ethical ramifications to studying human behaviour.	☐Creativity ☐Activity ☐Service Details:

Resources *List and attach (if applicable) any resources used in this unit*
Psychology Course Companion, 2nd Edition, A. Popov, L. Parker, D. Seath. Oxford University Press, 2017 **The Anthropologist on Mars, Oliver Sacks, Knopf Doubleday Publishing, 2012** **The Man Who Mistook his Wife for a Hat, Oliver Sacks, Knopf Doubleday Publishing, 2021** **The Brain in a Vat. Contemporary Theories of Knowledge, John Pollock, Savage, MD: Rowman & Littlefield, 1986**

Stage 3: Reflection—considering the planning, process and impact of the inquiry

What worked well *List the portions of the unit (content, assessment, planning) that were successful*	**What didn't work well** *List the portions of the unit (content, assessment, planning) that were not as successful as hoped*	**Notes/changes/suggestions:** *List any notes, suggestions, or considerations for the future teaching of this unit*
Of the 3 subjects in the core of psychology, I believe this unit is my strongest. Based on student responses, they really enjoyed the Oliver Sacks readings and a number of the video clips shown that	I still am not over all satisfied with the Pheromones unit, though they really enjoyed the "stinking t-shirt" study, Claus Wedekind.	I could combine the pheromone and the hormone units and create an individual presentation or small group presentation. That would allow me to include two additional pedagogical approaches learning process.

show the dysfunctions of the brain caused by various traumas.		