

Year Level: 9

Subject: Science 901

Week	Unit	Learning Focus	Victorian Curriculum
1-7	Introduction to Year 9 Science & Revision of Safety  Nervous & endocrine systems, Diseases & Microbes	<ul style="list-style-type: none"><li>• Describe the broad divisions of the nervous system – Central and Peripheral</li><li>• Describe the stimulus response model.</li><li>• Describe the variety of receptors which detect external stimuli.</li><li>• Distinguish between the structure and function of the main types of neurons – sensory, interconnecting and motor</li><li>• Understand and model nervous signalling pathways.</li><li>• Provide examples of human reflex actions.</li><li>• Identify functions for different areas of the brain.</li><li>• Dissect a brain.</li><li>• Research a disease of the nervous system and present their findings to the class.</li><li>• Describe the different endocrine glands and the hormones they produce.</li><li>• Investigate the role of some plant hormones in regulating plant growth.</li></ul>	Multicellular organisms rely on coordinated and interdependent internal systems to respond to changes to their environment VCSSU117  An animal's response to a stimulus is coordinated by its central nervous system (brain and spinal cord); neurons transmit electrical impulses and are connected by synapses VCSSU118
8 - 14	Acids & bases, Atomic Structure, Chemical reactions,	<ul style="list-style-type: none"><li>• Investigate the properties of acids and bases and how acidity is measured.</li><li>• Investigate the reactions of acids with metals bases and carbohydrates</li><li>• Describe chemical reactions using word equations.</li><li>• Outline the impacts of acid rain.</li><li>• Describe and demonstrate Conservation of Mass</li></ul>	Chemical reactions, including combustion and the reactions of acids, are important in both non-living and living systems and involve energy transfer VCSSU126

15-20	Consumer Science	<ul style="list-style-type: none"> <li>• Formulate testable hypotheses</li> <li>• Explain the differences between independent, dependent and controlled variables.</li> <li>• Relate reliability of results to sample size and repetition of the test</li> <li>• Design an experiment to test the claims of a manufacturer of a consumer product according to the scientific methods ensuring safety and ethical standards are met.</li> <li>• Carry out the experiment and present the data in a suitable form</li> <li>• Analyse data trends and draw appropriate conclusions and evaluate their experimental design.</li> <li>• Present their findings in a scientific report with all relevant sections using appropriate scientific language and conventions.</li> </ul>	<p>Formulate questions or hypotheses that can be investigated scientifically, including identification of independent, dependent and controlled variables VCSIS134</p> <p>Independently plan, select and use appropriate investigation types, including fieldwork and laboratory experimentation, to collect reliable data, assess risk and address ethical issues associated with these investigation types VCSIS135</p> <p>Communicate scientific ideas and information for a particular purpose, including constructing evidence-based arguments and using appropriate scientific language, conventions and representations VCSIS140</p>
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