


Year Level Plan	Year 9	Digital Technologies	
Digital Technologies		Projects	
Semester Unit			
<p>Overview</p> <p>In Year 9 Robotics, students will have opportunities to analyse problems, and design, implement and evaluate a range of digital solutions. Students will use a range of different technologies and techniques solve problems ranging in complexity.</p> <p>When defining problems students consider the functional and non-functional requirements of a solution through interacting with clients and regularly reviewing processes. They consolidate their algorithmic design skills to incorporate testing and review, and further develop their understanding of the user experience to incorporate a wider variety of user needs. Students develop modular solutions to complex problems using an object-oriented programming language where appropriate, and evaluate their solutions and existing information systems based on a broad set of criteria.</p>			
Assessment Tasks			
<p>Assessment Task 1: Folio - Artificial Robotics</p> <p>Students create a digital solution through demonstrating skills in analysing, designing, implementing and evaluating a digital problem.</p> <p>Knowledge and Understanding (Not assessed)</p> <p>Processing and Production Skills</p> <ul style="list-style-type: none"> Define and decompose real-world problems precisely, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs Design the user experience of a digital system by evaluating alternative designs against criteria including functionality, accessibility, usability, and aesthetics Implement modular programs, applying selected algorithms and data structures including using an object-oriented programming language Plan and manage projects using an iterative and collaborative approach, identifying risks and considering safety and sustainability 		<p>Assessment Task 2: Digital Project - Game Development</p> <p>Students will interact with stakeholders in creating a user experience through game development. Students will learn and develop a solutions where they:</p> <ul style="list-style-type: none"> Regularly review client needs Implement and test their solution Use object-oriented programming language <p>Knowledge and Understanding</p> <ul style="list-style-type: none"> Analyse simple compression of data and how content data are separated from presentation <p>Processes and Production Skills</p> <ul style="list-style-type: none"> Design the user experience of a digital system by evaluating alternative designs against criteria including functionality, accessibility, usability, and aesthetics Implement modular programs, applying selected algorithms and data structures including using an object-oriented programming language Evaluate critically how student solutions and existing information systems and policies, take account of future risks and sustainability and provide opportunities for innovation and enterprise 	