


Year Level Plan		Year 8		Digital Technologies			
Projects							
Semester Unit							
Overview							
<p>In Digital Projects, students define problems where students identify the key elements of the problems and the factors and constraints at play. They progress from designing to considering user experience factors such as user expertise, accessibility and usability requirements.</p> <p>Students broaden their programming experiences to include general-purpose programming languages, and incorporate subprograms into their solutions. They predict and evaluate their developed and existing solutions, considering time, tasks, and anticipate any risks associated with the use or adoption of such systems.</p> <p>Students plan and manage individual and team projects with some autonomy. They consider ways of managing the exchange of ideas, tasks and files, and techniques for monitoring progress and feedback. When communicating and collaborating online, students develop an understanding of different social contexts, for example acknowledging cultural practices and meeting legal obligations.</p>							
Assessment Tasks							
<p>Assessment Task 1: Digital Project - Learn to Code</p> <p>Students demonstrate process and production skills of digital systems and apply skills in defining, designing, implementing and a digital solution.</p> <p>Digital Project - Learn to Code This assessment provides opportunities to gather evidence of student learning in:</p> <p>Digital Technologies - Processes and Production Skills</p> <ul style="list-style-type: none"> Acquire data from a range of digital sources and evaluate its authenticity, accuracy and timeliness Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints Design the user experience of a digital system, generating, evaluating and communicating alternative designs Design algorithms represented diagrammatically and in English; and trace algorithms to predict output for a given input and to identify errors Implement and modify programs with user interfaces involving branching, iteration and functions in a general-purpose programming language Plan and manage projects that create and communicate ideas and information collaboratively online, taking safety and social contexts into account 				<p>Assessment Task 2: Examination - Arduino</p> <ul style="list-style-type: none"> Part A - Component and Structure Part B - Designing Solutions <p>Students learn and manipulate Arduino electronics to:</p> <ul style="list-style-type: none"> Create simple and complex circuits Use Object-Orientated programming language to code circuit <p>Examination - Arduino This assessment provides opportunities to gather evidence of student learning in:</p> <p>Digital Technologies - Processes and Production Skills</p> <ul style="list-style-type: none"> Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints Design the user experience of a digital system, generating, evaluating and communicating alternative designs Implement and modify programs with user interfaces involving branching, iteration and functions in a general-purpose programming language 			