



Curriculum Map For ICT Year 11

YEAR 11	Autumn 1	Autumn 2
Topics	<p>Learning Outcome 2: To Be Able To Initiate & Plan A Solution To Meet An Identified Need</p> <p>Learning Outcome 5: To Be Able To Import & Manipulate Data To Develop A Solution To Meet An Identified Need</p>	<p>Learning Outcome 7: To Be Able To Select and Present Information In The Development Of The Solution To Meet An Identified Need</p> <p>Learning Outcome 8: To Be Able To Iteratively Review & Evaluate The Development Of The Solution</p>
Substantive Knowledge – The Knowledge Taught By The Teacher	<p>Students will learn to:</p> <ul style="list-style-type: none"> Understand the planning tools and the software types used to develop project plans. Initiate a project by analysing the requirement in a given context. Understand how to initiate a project by analysing the requirement to a given topic. Mitigate risks through the planning process. Undertake iterative testing for the chosen product. Create, edit, delete and process data using appropriate software tools and techniques. 	<p>Students will learn to:</p> <ul style="list-style-type: none"> Select and present information in the development of the solution to meet an identified need. Present information using appropriate software tools and techniques and be able to use a variety of presentation techniques. Iteratively review the development of the solution.
Disciplinary Knowledge – How The Knowledge Will Be Applied	<ul style="list-style-type: none"> Students must be able to select the appropriate tools and techniques to allow them to initialise and plan a project effectively. It is important that students are able to select, use and integrate appropriate software tools and techniques to effectively create a detailed project plan. Students must be able to select and use appropriate technology and tools to create the planning documentation. Students must be able to create a test plan for their solution which can be used during the execution phase of the project and then referred to during both iterative reviews and final evaluation. Students must be able to select the appropriate tools and techniques to 	<ul style="list-style-type: none"> Students will present datasets/ information selecting from a wide range of media distribution channels. Students must be able to select, use and integrate appropriate software tools and techniques to present integrated information accurately and appropriately to an intended audience. Students must be able to carry out a detailed review of their project during/after evaluation.

	<p>allow them to create, edit, delete and process data effectively to develop an effective data handling solution.</p> <ul style="list-style-type: none"> Students must be able to select, use and integrate an appropriate range of tools to securely import, manipulate and store data effectively. It is the appropriate use of the tools to create an effective data handling solution that is important. 	
Skills	<ul style="list-style-type: none"> Analytical skills. Assessing information from different sources. Researching/investigative skills. Cognitive and problem-solving skills. Interpersonal skills. Creation of documents. Project planning. Testing and evaluation. Select, interact with and use ICT systems. 	<ul style="list-style-type: none"> Analytical skills. Assessing information from different sources. Researching/investigative skills. Cognitive and problem-solving skills. Interpersonal skills. Creation of documents. Project planning. Testing and evaluation. Select, interact with and use ICT systems.
Links To Prior Learning	<ul style="list-style-type: none"> Learners will have prior understanding of a project from the theory lessons from Year 10. 	<ul style="list-style-type: none"> Learners will have prior understanding of a project from the theory lessons from Year 10.
Literacy/ Numeracy	<ul style="list-style-type: none"> Creating reports. Evaluating a scenario for additional technology. Evaluating forms. The accuracy of sourced information. Describing mathematical principles used in ICT. 	<ul style="list-style-type: none"> Creating reports. Evaluating a scenario for additional technology. Evaluating forms. The accuracy of sourced information. Describing mathematical principles used in ICT.
Cross Curricular	<ul style="list-style-type: none"> The knowledge of the effect of technology on people lives. Awareness of the legal, ethical, and moral issues with technology. Knowing the appropriate use of computing. Cross Curricular: Use of Information Technology across subjects, e.g., creating presentations in PowerPoint or Using Excel for mathematical or scientific function. 	<ul style="list-style-type: none"> The knowledge of the effect of technology on people lives. Awareness of the legal, ethical, and moral issues with technology. Knowing the appropriate use of computing. Cross Curricular: Use of Information Technology across subjects, e.g., creating presentations in PowerPoint or Using Excel for mathematical or scientific function.
Assessment	<ul style="list-style-type: none"> Controlled Assessment of a Live Scenario 	<ul style="list-style-type: none"> Controlled Assessment of a Live Scenario

YEAR 11	Spring 1	Spring 2 & Summer 1
	<p>Learning Outcome 1: Understand The Tools & Techniques That Can Be Used To Initiate & Plan Solutions</p>	<p>Learning Outcome 4: Understand The Factors To Be Considered When Collecting &</p>

Topics	Learning Outcome 3: Understand How Data & Information Can Be Collected, Stored & Used	Processing Data & Storing Data/Information Learning Outcome 6: Understand The Different Methods Of Processing Data & Presenting Information
Substantive Knowledge – The Knowledge Taught By The Teacher	<p>Students will learn about:</p> <ul style="list-style-type: none"> • The phases of the project life cycle (PLC). • The inputs and outputs of each phase of the PLC. • How each phase of the PLC interacts and iterates with others. • How constraints and limitations can affect a project and explain how these constraint and limitations can be mitigated against. • The planning tools and the software types used to develop project plans. • What data is, the different types of data and information exist. 	<p>Students will learn about:</p> <ul style="list-style-type: none"> • What spreadsheet and database software are used for. • What software can be used to present information in different contexts. • The method of presenting information chosen depends on visibility of the output. • How the availability of and need for information affects the choice of presentation method. • How and why websites are used to communicate information. • The vulnerability of data and possible prevention measures to protect against and cyber-attack.
Disciplinary Knowledge – How The Knowledge Will Be Applied	<ul style="list-style-type: none"> • Students will be able to recognise each planning tool and its purpose. Students will be able to know about the components used in different planning tools. This should lead to students being able to consider the advantages and disadvantages of using them. • Students will be able to evaluate multiple planning tools that could be used in different contexts including comparing these tools. Students must be able to justify their selection of planning tool(s). 	<ul style="list-style-type: none"> • Students will know the types of threats that exist when collecting, processing data and storing data/information. For example, social engineering is the psychological manipulation of people into performing actions or divulging confidential information. • Students will be able to understand: <ul style="list-style-type: none"> - why threats are used by the attacker - how they work - how to mitigate against them. • Students must be able to identify vulnerabilities and understand how they can be exploited by an attacker. • Students will understand that cyber-security attacks can result in a range of impacts. For example, personal data loss can result in identity theft which could have financial and reputational impacts. • Students must know what the different prevention measures are (both physical and logical). Students must understand how these different prevention measures are used. • Students must understand how to mitigate risks, for example, what steps can be taken to mitigate risks and why.

		<ul style="list-style-type: none"> • Students need to know what the legislation/Acts are and their purpose. They need to know what to do to abide to them. They must be able to apply this knowledge to different contexts. Students must be able to explain the implications of the current relevant IT legislation for an individual, for an organisation and on the data, including when dealing with cyber-security issues. • Students will understand how to select the most appropriate tools and techniques to be used to process information and data for different contexts. They need to understand that different tools and techniques can be used to meet the defined objectives depending on the desired outcome. • Students will understand the purpose of different methods of processing and presenting information and be able to apply this to different contexts.
Skills	<ul style="list-style-type: none"> • Analytical skills. • Assessing information from different sources. • Researching/investigative skills. • Cognitive and problem-solving skills. • Interpersonal skills. • Creation of documents. • Project planning. • Testing and evaluation. • Select, interact with and use ICT systems. 	<ul style="list-style-type: none"> • Analytical skills. • Assessing information from different sources. • Researching/investigative skills. • Cognitive and problem-solving skills. • Interpersonal skills. • Creation of documents. • Project planning. • Testing and evaluation. • Select, interact with and use ICT systems.
Links To Prior Learning	<ul style="list-style-type: none"> • Students will have prior understanding from Year 10. 	<ul style="list-style-type: none"> • Students will have prior understanding from Year 10.
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Cross Curricular	<ul style="list-style-type: none"> • The knowledge of the effect of technology on people lives. • Awareness of the legal, ethical and moral issues with technology. • Knowing the appropriate use of computing. • Cross Curricular: Use of Information Technology across subjects, e.g., 	<ul style="list-style-type: none"> • The knowledge of the effect of technology on people lives. • Awareness of the legal, ethical and moral issues with technology. • Knowing the appropriate use of computing. • Cross Curricular: Use of Information Technology across subjects, e.g.,

	creating presentations in PowerPoint or using Excel for mathematical or scientific function.	creating presentations in PowerPoint or using Excel for mathematical or scientific function.
Assessment	<ul style="list-style-type: none"> • External Assessment For R012 • Learning Outcome Assessments 	<ul style="list-style-type: none"> • External Assessment For R012 • Learning Outcome Assessments