Curriculum Map 2021/2022

ST MARY'S CE HIGH SCHOOL

YEAR 12 INFORMATION TECHNOLOGY LEVEL 2

	Autumn 1a	Autumn 1b	Spring 2a	Spring 2b	Summer 3a	Summer 3b
Content	LO1 – Understand the tools and techniques that can be used to initiate and plan solutions LO3 – Understand how data and information can be collected, stored and used	LO4 – Understand the factors to be considered when collecting and processing data and storing data/information LO6 – Understand the different methods of processing data and presenting information	LO2 – To be able to initiate and plan a solution to meet an identified need	LO5 – To be able to import and manipulate data to develop a solution to meet an identified need	LO7 – To be able to select and present information in the development of the solution to meet an identified need LO8 – To be able to iteratively review and evaluate the development of the solution	
Skills	Students will explore the tools and techniques used to initiate and plan solutions, this will include the following: - The project life cycle - The iteration and iteration of the phases of the project life cycle - The inputs & outputs of the project life cycle - The initial project considerations (SMART objectives) - Planning tools and the type of software used to develop project plans Students will also explore how data & information can be collected, stored and used, this will include the following:	Students will explore the factors to be considered when collecting and processing data and storing data/information, this will include: - Types of threats - The vulnerabilities which be exploited in a cyber-security attack - The impacts of a cyber security attack - Prevention measures - Current and relevant IT legislation - The importance if validity, reliability and bias when collecting & using data & information Students will explore the different methods of	Students will be able to initiate & plan a solution to meet an identified need this will include: - How to initiate a project by analysing the requirements - How to mitigate risks through the planning process - Creating planning documentation using appropriate technology - How to undertake iterative testing	Students will be able to import & manipulate data to develop a solution to meet an identified need this will include: - How to create, edit, delete and process data using appropriate software tools and techniques (using spreadsheets & databases)	Students will be able to select & present information in the development of a solution to meet an identified need, this will include: - How select & extract data - How to present information using appropriate software tools & techniques Students will be able to iteratively review & evaluate the development of the	

	- What data consists of & the different types of data - What information consists of & the different types - The differences between data & Information - The methods used to collect data & store data/information and its appropriateness of use for its given context - IT used to support the collection of data - Different storage methods - The use of data in given contexts	processing data and presenting information, this will include: - Selection & justification of the appropriate software tools and techniques used to process data - Selection & justification of appropriate software tools & techniques to present information - The resources required for presenting information & appropriateness of the use of these			solution this will include: - How to carry out and document an iterative review	
Key Questions	What are the phases of the project lifecycle? What are the various inputs & outputs of the project life cycle? What are SMART objectives? What is the difference between data & information? What different methods can be used to collect data? How can data/information be stored?	What are the different threats to data & information? What vulnerabilities can be exploited? What are the impacts of a cyber security attack? How can you prevent a cyber security attack? Why is it important that data/information are valid?	How do you initiate a project plan? How can you mitigate risks to your project? What are the different planning documents needed for a project? How do you undertake iterative testing?	How can you create data? How can you edit and process your data effectively?	How do you select and extract relevant data? How can you present your data effectively? How do you carry out an iterative review?	
Assessment	End of module assessment based upon LO1 & LO3. Practice exam style questions will also be used	End of module assessment based upon LO4 & LO6. Practice exam style questions will also be used	Assessments will be released by the exam board in January 2022	Assessments will be released by the exam board in January 2022	Assessments will be released by the exam board in January 2022	