Rayner Stephens
HIGH SCHOOL

Year 9 - Computing 2021-22						
Curriculum intent	The aim of the curriculum is that learners are able to further develop understanding of a wider range of key concepts required as the foundational building blocks necessary to build knowledge and embed a love of learning about Computer Science or i-Media. Learners receive delivery of units of work that are necessary for completion within each specification. The units of work further develop understanding of key concepts and skills delivered in years 7 and 8 and provide the opportunity for learners to begin to secure the skills and knowledge set required to be successful in their chosen pathway. Learners receive a mixture of practical and theory based lessons that include opportunities for independent learning, collaboration and discussion.					
Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Knowledge	Intro to Network, Learners will explore the school network. Cybersecurity This unit takes learners on a journey of discovery of techniques that cybercriminals use to steal data, disrupt systems, and infiltrate networks. The	Introduction to Python programming This unit introduces learners to text-based programming with Python. The lessons form a journey that starts with simple programs involving input and output, and gradually moves on through arithmetic	Representations – from clay to silicon Introduce binary digits to your learners as the symbols computers use to perform these tasks and focus on the representation of text and numbers.	Mobile app development With this unit you can take learners through the entire process of creating their own mobile app, using App Lab from code.org. Building on the programming concepts learners used in previous units, they will work in pairs to	Media – Animations In this unit learners will discover how professionals create 3D animations using the industry-standard software package, Blender. By completing this unit learners will gain a greater understanding of how this important creative field is	Physical computing This unit applies and enhances the learners' programming skills in a new engaging context: physical computing, using the BBC micro:bit. In the process, they will refresh their Python programming skills and encounter a range of

	learners will start by considering the value their data holds and what organisations might use it for. They will then learn about social engineering and other common cybercrimes, and finally look at methods to protect against these attacks.	operations, randomness, selection, and iteration. NB: Additional support may be required due to not using Scratch.		perform user research, design their app, write the code for it, before finally evaluating and publishing it for the world to use. App Lab from Code.org (pupils will need accounts, which can be created by the teacher in advance)	used to make the media products that we consume. Sessions will take learners through the basics of modelling, texturing, and animating; outputs will include 3D models and short videos.	programming patterns that arise frequently in physical computing applications. NB: This unit requires purchase of Micro:Bits. To be decided.
Skills	Key Software Skills: E-Mail, Search Engines , Presentation	Key Skills: Programming software	Key Software Skills: Programming software	Key Software Skills: Programming software	Key Software Skills: Blender (free open source 3D creation software)	Key Software Skills: Programming software

Assessments	Teacher Q&A, Learner oracy opportunities Teacher learning analysis mid-way through the completion of task and provide feedback the following lesson Peer assessment Self assessment End of unit Teacher assessment. Teacher learning analysis, provide feedback the following session.	Teacher Q&A, Learner oracy opportunities Teacher learning analysis mid-way through the completion of task and provide feedback the following lesson Peer assessment Self assessment End of unit Teacher assessment. Teacher learning analysis, provide feedback the following session.	Teacher Q&A, Learner oracy opportunities Teacher learning analysis mid-way through the completion of task and provide feedback the following lesson Peer assessment Self assessment End of unit Teacher assessment. Teacher learning analysis, provide feedback the following session.	Teacher Q&A, Learner oracy opportunities Teacher learning analysis mid-way through the completion of task and provide feedback the following lesson Peer assessment Self assessment End of unit Teacher assessment. Teacher learning analysis, provide feedback the following session.	Teacher Q&A, Learner oracy opportunities Teacher learning analysis mid-way through the completion of task and provide feedback the following lesson Peer assessment Self assessment End of unit Teacher assessment. Teacher learning analysis, provide feedback the following session.	Teacher Q&A, Learner oracy opportunities Teacher learning analysis mid-way through the completion of task and provide feedback the following lesson Peer assessment Self assessment End of unit Teacher assessment. Teacher learning analysis, provide feedback the following session.
Enrichment	Coding club	Coding club	IDEA award	IDEA award	Bletchley Park research	IDEA award