Year 7 Curriculum Overview **Rationale: The Year 7 curriculum is designed to give students an introduction to the principles of Computer Science. Students will experience a range of modules which will help them to develop their understanding of computer systems, number systems, programming and how to stay safe when accessing information online**			
Term/Length of Time	**Outline**	**Assessment/Teacher Feedback Opportunities**	**Homework and Literacy resources**
Autumn 1	**Using a Computer** Students will familiarise themselves with the school network and learn how to use computers and the computer room safely and effectively. Students learn how to use OneNote for lessons. Students will understand how to be safe and responsible on the internet: fake websites, safe searching, copyright, staying safe online, cyber bullying, predators, sexting, etc. including how to report dangers.	MS Forms based end of unit assessment. Mixture of Open and Closed questions with an additional focus on keywords/literacy	**Minimum homework expectation - to be set on G4S** Completion of revision activity using Seneca Learning **Optional homework tasks and Literacy resources** Creation of revision resource (e.g. mind map) to be submitted alongside compulsory activity Complete some Bronze Award badges on the iDEA Award to showcase digital literacy and employability skills. Once complete students can move to Silver and then Gold certificates. Access BBC Bitesize and research more into this topic Complete an activity on Hour of Code Watch an episode of BBC Click on the BBC iPlayer Additional Reading for Budding Computer Scientists: Choose a book from this recommended reading list some of which can be found in the department or the library
Autumn 2	**What is a Computer?** Students understand the differences between input and output devices including the Input-Process-Output model. Students are able	MS Forms based end of unit assessment. Mixture of Open and Closed questions with an additional focus on keywords/literacy	**Minimum homework expectation - to be set on G4S** Completion of revision activity using Seneca Learning **Optional homework tasks and Literacy resources** Creation of revision resource (e.g. mind map) to be submitted alongside compulsory activity

	to recognise the key components that make up a computer and explain their functionality. Students will understand the function of the Central Processing Unit and its relationship with Random Access Memory and the hard drive including the Fetch-Decode-Execute cycle. Students will gain an understanding of good learning habits and create a revision resource for their final assessment on this unit.		Complete some Bronze Award badges on the iDEA Award to showcase digital literacy and employability skills. Once complete can move to Silver and then Gold certificates. Access BBC Bitesize and research more into this topic Complete an activity on Hour of Code Watch an episode of BBC Click on the BBC iPlayer Additional Reading for Budding Computer Scientists: Choose a book from this recommended reading list some of which can be found in the department or the library
Spring 1	**Computer Networks** Students are able to recognise the different types of computer networks (Wide Area Network/Local Area Network) including their topologies and explain where they are used. Students learn about how the internet works including packet switching. Students will understand the security risks (viruses/malware/etc.) of using computes including prevention measures.	MS Forms based end of unit assessment. Mixture of Open and Closed questions with an additional focus on keywords/literacy	**Minimum homework expectation - to be set on G4S** Completion of revision activity using Seneca Learning **Optional homework tasks and Literacy resources** Creation of revision resource (e.g. mind map) to be submitted alongside compulsory activity Complete some Bronze Award badges on the iDEA Award to showcase digital literacy and employability skills. Once complete students can move to Silver and then Gold certificates. Access BBC Bitesize and research more into this topic Complete an activity on Hour of Code Watch an episode of BBC Click on the BBC iPlayer

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Spring 2	**Data** Students gain an understanding of data and binary. Students understand how to decode denary to binary, convert them to letters using ASCII.	MS Forms based end of unit assessment. Mixture of Open and Closed questions with an additional focus on keywords/literacy/numeracy	**Minimum homework expectation - to be set on G4S** Completion of revision activity using Seneca Learning **Optional homework tasks and Literacy resources** Creation of revision resource (e.g. mind map) to be submitted alongside compulsory activity Complete some Bronze Award badges on the iDEA Award to showcase your digital literacy and employability skills. Once complete you can move to Silver and then Gold certificates. Access BBC Bitesize and research more into this topic Complete an activity on Hour of Code Watch an episode of BBC Click on the BBC iPlayer Additional Reading for Budding Computer Scientists: Choose a book from this recommended reading list some of which can be found in the department or the library
Summer 1	**HTML Programming - Web Page** Students will learn how to create a simple webpage using html including body, tags and head. Students will understand how to format text and page backgrounds whilst learning how to insert images and hyperlinks.	MS Forms based end of unit assessment. Mixture of Open and Closed questions with an additional focus on keywords/literacy/numeracy	**Minimum homework expectation - to be set on G4S** Completion of revision activity using Seneca Learning **Optional homework tasks and Literacy resources** Creation of revision resource (e.g. mind map) to be submitted alongside compulsory activity

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Summer 2	**Block Programming with Microbits** Students gain an introduction to algorithms and understand the need for precision in framing instructions. Students will gain an introduction to block based programming and physical computing.	Verbal teacher feedback on production of working Microbit activities. Recognition and rewards for additional activities completed beyond the classroom.	**Minimum homework expectation - to be set on G4S** Access Make Code and complete an additional Microbit activity **Optional homework tasks and Literacy resources** Creation of revision resource (e.g. mind map) to be submitted alongside compulsory activity Complete some Bronze Award badges on the iDEA Award to showcase digital literacy and employability skills. Once complete students can move to Silver and then Gold certificates Complete an activity on Hour of Code Watch an episode of BBC Click on the BBC iPlayer Additional Reading for Budding Computer Scientists: Choose a book from this recommended reading list some of which can be found in the department or the library