The Bemrose School Curriculum

Curriculum Overview: Year 10 Computer Science

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic 1.1 System architecture 1.2 Memory and Storage	**Topic** 1.3 Computer Networks 2.2 Programming fundamentals	**Topic** 1.4 Network Security 2.2 Programming fundamentals	**Topic** 1.5 System Software 1.6 Legislation	**Topic** 1.6 Legislation Paper 1 Revision	**Topic** 2.1 Algorithms
Links to prior learning KS3 Computer Science I, II and III **Stretch and Challenge Enquiry** How can you apply technical terminology to exam questions?	**Links to prior learning** KS3 Computer Science III **Stretch and Challenge Enquiry** How does the concept of layers allow the internet to function?	**Links to prior learning** 1.3 Computer Networks KS3 Computer Science II and III **Stretch and Challenge Enquiry** How does encryption keep data safe?	**Links to prior learning** J277/01 – Computer Systems **Stretch and Challenge Enquiry** How does ethics and legislation affect different stakeholders?	**Links to prior learning** KS3 Computer Science II **Stretch and Challenge Enquiry** What does a grade 9 look like?	**Links to prior learning** 2.2 Programming fundamentals **Stretch and Challenge Enquiry** How do you program searching and sorting algorithms?

Equipment Needed		Wider Reading		Family activities	
Programming challenges Idle Google Classroom A device to be able to program on (CGP GCSE Computer Science 9-1 Revision)		ClearRevise OCR Computer Science J277 OCR GCSE (9-1) J277 Computer Science (S Robinson,2020)		Ask your child to discuss or show you some of the programs they have created. Encourage your child to develop a growth mind-set and accept mistakes as part of the learning process. If you have a PC or laptop and can access the following website to program https://www.tutorialspoint.com/compilers/online-python-compiler.htm Or download the free Python software; students can work on their programming skills. Video tutorials to watch here	