

## Scope and Sequence Document for: IGCSE Computer Science

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Tutor qualifications:	MPhys (University of Sussex)	IGCSE/A level Exam board & Specification No:	IGCSE Computer Science CAIE 0478
Resources required:	Cambridge IGCSE Computer Science Coursebook, Lawrey and Scott, ISBN - 9781107518698 Cambridge IGCSE Computer Science Programming Book for Python, Roffey, ISBN - 9781316617823		

Module No.	NSW week No.	Week beginning Monday the:	Contents of study
0	1	06/09/21	Review and installation week
1a	2	13/09/21	Data representation – binary and denary numbers
	3	20/09/21	Data representation - hexadecimals
	4	27/09/21	Data representation – storage and compression
1b	5	04/10/21	Programming week
	6	11/10/21	
2a	7	18/10/21	Communication and internet technologies – data transmission
	8	25/10/21	Half Term
2a (Cont.)	9	01/11/21	Communication and internet technologies – security
	10	08/11/21	Communication and internet technologies – internet principles
2b	11	15/11/21	Programming week
	12	22/11/21	
3a	13	29/11/21	Computer architecture – von Neumann machines
	14	06/12/21	Computer architecture – operating systems and interrupts
	15	13/12/21	Computer architecture – programming languages
	16	20/12/21	Christmas Holiday
	17	27/12/21	Christmas Holiday
	18	03/01/22	Christmas Holiday

3b	19	10/01/22	Programming week
	20	17/01/22	
4a	21	24/01/22	Logic gates – components
	22	31/01/22	Logic gates – circuits
4b	23	07/02/22	Programming week
	24	14/02/22	Half Term
4b (Cont.)	25	21/02/22	Programming week
5a	26	28/02/22	Input devices – keyboards and mice
	27	07/03/22	Input devices – scanners
	28	14/03/22	Input devices – digital cameras, touch screens, whiteboards
	29	21/03/22	Input devices – microphones and catch up
5b	30	28/03/22	Programming week
	31	04/04/22	Easter Holiday
	32	11/04/22	Easter Holiday
	33	18/04/22	Easter Holiday
5b	34	25/04/22	Programming week
6a	35	02/05/22	Sensors – light and temperature
	36	09/05/22	Exam week
6a (Cont.)	37	16/05/22	Sensors – motion and magnetic field sensors
	38	23/05/22	Sensors – gas, pressure, moisture and pH
	39	30/05/22	Half Term
6b	40	06/06/22	Programming week
	41	13/06/22	
7a	42	20/06/22	Output devices - displays
	43	27/06/22	Output devices – projectors and printers
NSW Summer holiday period – 4 July – 5 September 2122			
7a (Cont.)	1	05/09/22	Output devices – computer-aided manufacturing
	2	12/09/22	Output devices – speakers, headphones and actuators
7b	3	19/09/22	Programming week
	4	26/09/22	

8a	5	03/10/22	Memory – types of memory
	6	10/10/22	
	7	17/10/22	
	8	24/10/22	Half Term
8a (Cont.)	9	31/10/22	Memory – file size
8b	10	07/11/22	Programming week
	11	14/11/22	
9a	12	21/11/22	Security – prevention and verification
	13	28/11/22	Security - infections
	14	05/12/22	Security – protection against attack
	15	12/12/22	Security – protection and protocols
	16	19/12/22	Christmas Holiday
	17	26/12/22	Christmas Holiday
	18	02/01/23	Christmas Holiday
9b	19	09/01/23	Programming week
	20	16/01/23	
10a	21	23/01/23	Ethics - copyright
	22	30/01/23	Mock exam
10a (Cont.)	23	06/02/23	Ethics – freeware and communications
10b	24	13/02/23	Programming week
	25	20/02/23	Half Term
10b (Cont.)	26	27/02/23	Programming week
11a	27	06/03/23	Databases - structure
	28	13/03/23	Databases – data types and primary keys
	29	20/03/23	Databases – relational databases and searches
	30	27/03/23	Databases – validation and catch up
	31	03/04/23	Easter Holiday
	32	10/04/23	Easter Holiday
	33	17/04/23	Easter Holiday
	34	24/04/23	
	35	01/05/23	
	36	08/05/23	
	37	15/05/23	

	38	22/05/23	
	39	29/05/23	Half Term
	40	05/06/23	
	41	12/06/23	
	42	19/06/23	
	43	26/06/23	