

Scope and Sequence Document for: IGCSE Computer Science

Tutor	Eric van der Merwe		
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	07/09/20	Review and installation week
1a	2	14/09/20	Data representation – binary and denary numbers
	3	21/09/20	Data representation - hexadecimals
	4	28/09/20	Data representation – storage and compression
1b	5	05/10/20	Programming week
	6	12/10/20	
2a	7	19/10/20	Communication and internet technologies – data transmission
	8	26/10/20	Half Term
2a (Cont.)	9	02/11/20	Communication and internet technologies – security
	10	09/11/20	Communication and internet technologies – internet principles
2b	11	16/11/20	Programming week
	12	23/11/20	
3a	13	30/11/20	Computer architecture – von Neumann machines
	14	07/12/20	Computer architecture – operating systems and interrupts
	15	14/12/20	Computer architecture – programming languages
	16	21/12/20	Christmas Holiday
	17	28/12/20	Christmas Holiday
	18	04/01/21	Christmas Holiday

3b	19	11/01/21	Programming week
	20	18/01/21	
4a	21	25/01/21	Logic gates – components
	22	01/02/21	Logic gates – circuits
4b	23	08/02/21	Programming week
	24	15/02/21	Half Term
4b (Cont.)	25	22/02/21	Programming week
5a	26	01/03/21	Input devices – keyboards and mice
	27	08/03/21	Input devices – scanners
	28	15/03/21	Input devices – digital cameras, touch screens, whiteboards
	29	22/03/21	Input devices – microphones and catch up
	30	29/03/21	Easter Holiday
	31	05/04/21	Easter Holiday
	32	12/04/21	Easter Holiday
5b	33	19/04/21	Programming week
	34	26/04/21	
6a	35	03/05/21	Sensors – light and temperature
	36	10/05/21	Exam week
6a (Cont.)	37	17/05/21	Sensors – motion and magnetic field sensors
	38	24/05/21	Sensors – gas, pressure, moisture and pH
	39	31/05/21	Half Term
6b	40	07/06/21	Programming week
	41	14/06/21	
7a	42	21/06/21	Output devices - displays
	43	28/06/21	Output devices – projectors and printers
NSW Summer holiday period – 5 July – 3 September 2021			
7a (Cont.)	1	06/09/21	Output devices – computer-aided manufacturing
	2	13/09/21	Output devices – speakers, headphones and actuators
7b	3	20/09/21	Programming week
	4	27/09/21	

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

	37	16/05/22	
	38	23/05/22	
	39	30/05/22	Half Term
	40	06/06/22	
	41	13/06/22	
	42	20/06/22	
	43	27/06/22	