

**Scope and Sequence Document for Computer Science IGCSE:**

Tutor	Eric van der Merwe		
Tutor qualifications:	MPhys (University of Sussex)	IGCSE/A level Exam board & Specification No:	CiE 0478 Computer Science
Resources required:	Cambridge IGCSE Computer Science Coursebook, Lawrey and Scott, ISBN 978-1-107-51869-8 Cambridge IGCSE Computer Science Programming Book for Python, Roffey, ISBN 978-1-316-61782-3		

Module No.	NSW week No.	Week beginning Monday the:	Contents of study
0	1	03/09/18	Review and Installation Week
1a	2	10/09/18	Data Representation – Binary and Denary Numbers
1a	3	17/09/18	Data Representation - Hexadecimals
1a	4	24/09/18	Data Representation – Storage and Compression
1b	5	01/10/18	Programming Week
1b	6	08/10/18	Programming Week
2a	7	15/10/18	Communication and Internet Technologies – Data Transmission
	8	22/10/18	Half Term
2a	9	29/10/18	Communication and Internet Technologies – Security
2a	10	05/11/18	Communication and Internet Technologies – Internet Principles
2b	11	12/11/18	Programming Week
2b	12	29/11/18	Programming Week
3a	13	26/11/18	Computer Architecture – von Neumann machines
3a	14	03/12/18	Computer Architecture – Operating Systems and Interrupts
3a	15	10/12/18	Computer Architecture – Programming Languages
	16	17/12/18	Christmas Holiday
	17	24/12/18	Christmas Holiday
	18	31/12/18	Christmas Holiday

3b	19	07/01/19	Programming Week
3b	20	14/01/19	Programming Week
4a	21	21/01/19	Logic Gates – Components
4a	22	28/01/19	Logic Gates – Circuits
4b	23	04/02/19	Programming Week
	24	11/02/19	Half Term
4b	25	18/02/19	Programming Week
5a	26	25/02/19	Input Devices – Keyboards and Mice
5a	27	04/03/19	Input Devices – Scanners
5a	28	11/03/19	Input Devices – Digital Cameras, Touch Screens, Whiteboards
5a	29	18/03/19	Input Devices – Microphones and Catch up
5b	30	25/03/19	Programming Week
5b	31	01/04/19	Programming Week
	32	08/04/19	Easter Holiday
	33	15/04/19	Easter Holiday
	34	22/04/19	Easter Holiday
6a	35	29/04/19	Sensors – Light and Temperature
-	36	06/05/19	Exam Week
6a	37	13/05/19	Sensors – Motion and Magnetic Field Sensors
6a	38	20/05/19	Sensors – Gas, Pressure, Moisture and pH
	39	27/05/19	Half Term
6b	40	03/06/19	Programming Week
6b	41	10/06/19	Programming Week
7a	42	17/06/19	Output Devices - Displays
7a	43	24/06/19	Output Devices – Projectors and Printers
NSW Summer holiday period – 1 July – 31 August 2019			
7a	1	02/09/19	Output Devices – Computer-aided Manufacturing
7a	2	09/09/19	Output Devices – Speakers, Headphones and Actuators
7b	3	16/09/19	Programming Week
7b	4	23/09/19	Programming Week
8a	5	30/09/19	Memory – Types of Memory
8a	6	07/10/19	Memory – Memory Media

8a	7	14/10/19	Memory – Memory Choices
	8	21/10/19	Half Term
8a	9	28/10/19	Memory – File Size
8b	10	04/11/19	Programming Week
8b	11	11/11/19	Programming Week
9a	12	18/11/19	Security – Prevention and Verification
9a	13	25/11/19	Security - Infections
9a	14	02/12/19	Security – Protection against attack
9a	15	09/12/19	Security – Protection and Protocols
	16	16/12/19	Christmas Holiday
	17	23/12/19	Christmas Holiday
	18	30/12/19	Christmas Holiday
9b	19	06/01/20	Programming Week
9b	20	13/01/20	Programming Week
10a	21	20/01/20	Ethics - Copyright
-	22	27/01/20	Mock Exam
10a	23	03/02/20	Ethics – Freeware and Communications
	24	10/02/20	Half Term
10b	25	17/02/20	Programming Week
10b	26	24/02/20	Programming Week
11a	27	02/03/20	Databases - Structure
11a	28	09/03/20	Databases – Data types and Primary Keys
11a	29	16/03/20	Databases – Relational Databases and Searches
11a	30	23/03/20	Databases – Validation and Catch Up
-	31	30/03/20	Exam Prep
	32	06/04/20	Easter Holiday
	33	13/04/20	Easter Holiday
	34	20/04/20	Easter Holiday
-	35	27/04/20	Revision
-	36	04/05/20	Revision
-	37	11/05/20	Revision
-	38	18/05/20	Revision
	39	25/05/20	Half Term