Armfield Academy – Department of Computer Science

Units

Paper 1	Paper 2
Paper 1 1.1 Systems Architecture 1.2 Memory and Storage 1.3 Computer Networks, Connections and Protocols 1.4 Network Security 1.5 Systems Software 1.6 Ethical, Legal and Cultural Issues	**Paper 2** 2.1 Algorithms 2.2 Programming Fundamentals 2.3 Producing Robust Programs 2.4 Boolean Logic 2.5 Programming Languages and IDEs

Date	Half Term	Week	Lesson 1	Lesson 2	Lesson 3
6th September	1	1	Introduction	1.1 Architecture of the CPU	1.1 Architecture of the CPU
13th September	1	2	1.1 How common characteristics of CPUs affect their performance	1.1 Embedded Systems	Programming
20th September	1	3	Programming	Revision	1.2 RAM and ROM
27th September	1	4	1.2 Virtual Memory	1.1 Test	1.1 Action
4th October	1	5	1.2 Common Types of Storage	1.2 Common Types of Storage	1.2 Applications of Storage
11th October	1	6	1.2 Units	1.2 Data capacity and calculation of requirements	1.2 Test
1st November	2	7	1.2 Action	1.2 Binary conversion and addition	1.2 Binary shift and hexadecimal
8th November	2	8	1.2 Catch-up	1.2 Character Sets	1.2 Bitmaps
15th November	2	9	1.2 Sound	1.2 Compression	1.2 Compression
22nd November	2	10	1.2 Exam Questions	1.2 Revision	Programming
29th November	2	11	Programming	Programming	1.2 Test
6th December	2	12	1.2 Action	Programming	Programming
13th December	2	13	Programming	1.3 Types of Networks	1.4 Factors that Affect Network Performance
4th January	3	14	1.3 Client-server and peer-to-peer	1.3 Hardware used to connect a LAN	1.3 The Internet

Date	Term	Week	Lesson 1	Lesson 2	Lesson 3
10th January	3	15	1.3 Catch-up	1.3 Star and mesh network topologies	1.3 Modes of connection
17th January	3	16	1.3 Wi-Fi encryption	1.3 IP and MAC addressing	1.3 Standards and common protocols
24th January	3	17	1.3 The concept of layers	1.3 Test	1.3 Action
31st January	3	18	1.4 Forms of Attack	1.4 Malware	1.4 Phishing part 1
7th February	3	19	1.4 Phishing part 2	1.4 Brute Force Attack	1.4 Denial of Service Attack
21st February	4	20	1.4 Data interception and theft	1.4 SQL Injection	1.4 Identifying and preventing vulnerabilities
28th February	4	21	1.4 Test	1.4 Action	2.2 Basic programming constructs
7th March	4	22	2.2 Data types, operators and string manipulation	2.2 File handling	2.2 Records and SQL
14th March	4	23	2.2 Arrays and sub-problems	2.2 Random number generation	2.1 Linear and Binary Search
21st March	4	24	2.1 Bubble Sort	2.1 Insertion Sort	2.1 Merge Sort
28th March	4	25	2.4 Boolean Logic	Catch-Up	Information Lesson
19th April	5	26	BANK HOLIDAY	1.5 The purpose and functionality of operating systems	1.5 Operating systems part 1
25th April	5	27	1.5 Operating systems part 2	1.5 Utility system software	1.5 Test & Action
2nd May	5	28	BANK HOLIDAY	1.6 Ethical issues	1.6 Privacy issues
9th May	5	29	1.6 Legal issues	1.6 Cultural Issues	1.6 Environmental issues
16th May	5	30	1.6 How digital technology impacts Society	1.6 Open-source vs Proprietary Software	1.6 Text & Action
23rd May	5	31	Revision	Revision	Revision
6th June	6	32	MOCKS	MOCKS	MOCKS
13th June	6	33	MOCKS	MOCKS	MOCKS
20th June	6	34	Work Exp	Work Exp	Work Exp
27th June	6	35	Programming and Revision	Programming and Revision	Programming and Revision
4th July	6	36	Programming and Revision	Programming and Revision	Programming and Revision
11th July	6	37	Programming and Revision	Programming and Revision	Programming and Revision
18th July	6	38	Programming and Revision	Programming and Revision	Programming and Revision