Long Term Planning

Subject: Computer Science

Year: 9

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|  | **Term 1** | **Term 2** | **Term 3** | **Term 4** | **Term 5** | **Term 6** |
| **Units**  | **Computers in society** | **Hardware and software** | **Networks** | **Databases** | **Binary and data representation** | **Programming** |
| **Main Area of Learning**  | **1.1Introduction to computers:** **1.2Reliability and backing up data:****1.3Computer ethics and the law****1.4Industry computer standards** | **2.1 Hardware:** **2.2 Software:** | **3.1 Network hardware****3.2 The internet****3.3 Webpages and web apps****3.4 Security** | **4.1 Introducing databases****4.2 Relational databases****4.3 Queries and SQL****4.4 Organising data and handling external files****4.5 Database management systems** | **5.1 Introduction to binary****5.2 Numbers and binary addition****5.3 Hexadecimal and character sets****5.4 Encoding images****5.5 Encoding audio and video** | **6.1 Programming software and the IDE** **6.2 Introducing algorithms****6.3 Algorithms and control flow****6.4 Constants, variables and data types****6.5 Boolean logic****6.6 Data structure****6.7 Functions procedures and modules****6.8 Development and testing****6.9 Raspberry pie and Arduino or similar** |
| **Equipment and Resource** | Lesson PowerPoints, BBC bitesize – Computer science, Kerboodle KahootShow my homeworkComputers. | Lesson PowerPoints, BBC bitesize – Computer science, Kerboodle KahootShow my homeworkComputers. | Lesson PowerPoints, BBC bitesize – Computer science, Kerboodle KahootShow my homeworkComputers. | Lesson PowerPoints, BBC bitesize – Computer science, Kerboodle KahootShow my homeworkComputers. | Lesson PowerPoints, BBC bitesize – Computer science, Kerboodle KahootShow my homeworkComputers. | Lesson PowerPoints, BBC bitesize – Computer science, Kerboodle KahootShow my homeworkComputers. |
| **Assessment Objectives** | 1.11.8 | 1.11.7 | 1.4 1.5 1.8 | 1.72.22.32.6 | 2.12.6 | 2.12.22.32.42.52.6 |

Outline of Assessment Objectives:

AO1; Analyse, discuss limitations, draw conclusions, present data

AO2; Communicate ideas, construct explanations, critique claims, justify opinions

AO3; Collect data, devise questions, plan variables, test hypothesis

A04; Estimate risks, examine consequences, review theories. Interrogate sources

RQ; Required practical