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  Kahoot  Show my homework  Computers. | Lesson PowerPoints,  BBC bitesize – Computer science,  Kerboodle  Kahoot  Show my homework  Computers. | Lesson PowerPoints,  BBC bitesize – Computer science,  Kerboodle  Kahoot  Show my homework  Computers. | | Lesson PowerPoints,  BBC bitesize – Computer science,  Kerboodle  Kahoot  Show my homework  Computers. | Lesson PowerPoints,  BBC bitesize – Computer science,  Kerboodle  Kahoot  Show my homework  Computers. | Lesson PowerPoints,  BBC bitesize – Computer science,  Kerboodle  Kahoot  Show my homework  Computers. |
| **Assessment Objectives** | 1.1  1.8 | 1.1  1.7 | 1.4  1.5  1.8 | | 1.7  2.2  2.3  2.6 | 2.1  2.6 | 2.1  2.2  2.3  2.4  2.5  2.6 |

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