

**Computer Scientist selection rational overview for Computing**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **Autumn** | **Spring** | | **Summer** |
| **KS1** | Cycle A | **Algorithms Beebots / Scratch Animation** | **Multimedia**  **Invites** | | **Algorithms Debugging** |
| Person | CharlesBabbage.jpg  Sir Charles Babbage | | | |
| Reason for Significant person selection | Charles Babbage, or the “father of the computer,” invented the prototype of the world’s first mechanical calculator, the Difference Engine. | | | |
| Cycle B | **Algorithms Beebots / Scratch Animation** | **Data Handling**  **Pictograms and Tables** | | **Algorithms Debugging** |
| Person | Ada Lovelace: Original and Visionary, but No Programmer | OpenMind  Ada Lovelace | | | |
| Reason for Significant person selection | Worked with Charles Babbage. She was the first to recognise that the machine had applications beyond pure calculation, and to have published the first algorithm intended to be carried out by such a machine. As a result, she is often regarded as the first computer programmer. | | | |
| **LKS2** | Cycle A | **Scratch**  **Pens and Drawing** | **Multimedia**  **Invites** | **Networks** | **Scratch**  **Quiz** | **Scratch Music (Taught in Music comprehension slot)** |
| Person | C:\Users\samuel.firth\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\723D95DE.tmp  Tim Berners-Lee | | | | |
| Reason for Significant person selection | Children will be leaning about the internet. Tim Berners-Lee invented the internet. | | | | |
| Cycle B | **Scratch Maze Games** | **Data Handling – Excel** | | **Scratch Anglo Saxon animation** |
| Person | Grace Hopper - Wikipedia  Grace Hopper | | | |
| Reason for Significant person selection | The terms "bug" and "debugging" are popularly attributed to Admiral Grace Hopper in the 1940s. While she was working on a Mark II computer at Harvard University, her associates discovered a moth stuck in a relay and thereby impeding operation, whereupon she remarked that they were "debugging" the system.  Children will debug their own games. | | | |
| **UKS2** | Cycle A | **Scratch – Clocks and Timers** | **Multimedia**  **Invites** | **Networks** | **Scratch / BBC Microbit Rovers** |
| Person | C:\Users\samuel.firth\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\472D1D9C.tmp  Alan Turing | | | |
| Reason for Significant person selection | He worked for the British government during World War II, when he succeeded in breaking the secret code Germany used to communicate. Developed the first modern computer.  Strong links with UKS2 poppies peace and power units taught this term. | | | |
| Cycle B | **Scratch – Coin Generator** | **Data Handling – Excel** | | **Scratch / BBC GPIO Pins** |
| Person | Katherine Johnson - Wikipedia  Katherine Johnson | | | |
| Reason for Significant person selection | She had reputation for mastering complex manual calculations and helped pioneer the use of computers to perform the tasks. The space agency noted her "historical role as one of the first African-American women to work as a NASA scientist"  Children will use computers to complete calculations for themselves | | | |