|  |  |  |
| --- | --- | --- |
|  | **Key Concept** | **Explanation**  |
| **Key Stage** **One**  | Algorithms | A set of steps that accomplish a task.  |
| Programs | Software, containing a detailed sequence of instructions, which runs on a computer or other digital device.  |
| Debug | Correcting errors in a program using logical reasoning.  |
| Decomposition | Decomposition is breaking down problems into smaller, more manageable chunks.  |
| Patterns | Identifying, recognising patterns and creating generalisations to solve problems in a critical and efficient way.  |
| Evaluating | To evaluate what successes and improvements are required within a program.  |
| Information technology | Information technology involves the creation, organisation and manipulation of digital content through different digital platforms.  |
| Digital literacy | Digital literacy is the ability to find, evaluate, utilise, share, and create content using information technologies. |
| Logic | This concept relates to the predicting and analysing aspect of computer science.  |
| **Lower Key Stage Two** | Controlling or simulating physical systems | Writing a program that control physical devices. |
| Abstraction | To identify the details that are relevant to solving a problem. |
| **Upper Key Stage Two**  | Design | To decide what is going to be created in an order/steps. |
| Input and output | Input is the signals are given to a program to do things and output is the action that happens as a result of an input.  |

In computing, concepts taught in previous key stages are revisited and built upon.

|  |  |  |
| --- | --- | --- |
|  | **Unit of Work**  | **Key Vocabulary** |
| **Key Stage****One** | Coding | instruction, sprite, algorithm, computer, program, debug, action, background, button, character, code block, input/output, repeat, command, when…  |
| Information technology e.g., data, spreadsheets | pictogram, data, database, collate, technology, spreadsheet, columns, cells, rows, concept map, questionnaire, presentation |
| Online safety | log in/Log out, username, password, avatar, notification, Internet, sharing, email, personal details, attachment, digital footprint, search engine |
| **Lower Key** **Stage Two** | Coding | action, sprite, algorithm, bug, output, command, input, debugging, repeat, selection, timer, properties, code block, design mode, code design, event, if, object, computer simulation, variable |
| Online safety  | password, internet, blog, concept map, username, website, webpage, PEGI rating, identity theft, computer virus, copyright, cookies, digital footprint, malware, email, messages, phishing, spam, plagiarism |
| Information technology e.g., data, spreadsheets | < > =, advance mode, copy and paste, columns, cells, delete key, equals tool, move cell tool, rows, spin tool, spreadsheet, average, charts, formatting, communication, email, compose, address book, save to draft, send, attachment, database, graphs, animation, audio, design templates, entrance, font, media, presentation, slide, slideshow, stock Image, text box, text formatting, transition |
| Typing  | posture, home row keys, bottom row keys, space bar, font, italic, bold, underline  |
| Animation | animation, frame, background, play, sound, music or oral effects, video clip, flipbook, onion skinning, stop motion |
| Hardware | motherboard, RAM, CPU, graphics card, monitor, network card, speakers, keyboard andmouse, external devices |
| **Upper Key** **Stage Two** | Coding | sequence, sprite, timer, variable, action, algorithm, bug, output, command, input, debug/debugging, repeat, selection, design mode, code design, event, if, object, control, alert, get Input, if/else, simulation, animation, evaluation, event |
| Online safety | sequence, smart rules, password, encryption, identity theft, reputable, plagiarism, citations, shared image, bibliography, phishing, screen time, spoof websites, digital footprint  |
| Information technology e.g., data, spreadsheets | copy and paste, average, cells, charts, columns, formula, formula wizard, formula equals tool, random tool, rows, vertical, move cell tool, spreadsheet, timer, statistics, avatar, data, database, collaborative, record, sort, group, arrange, find, table, copyright, document, charts and tables, cursor, word document, font, merge cells, text wrapping/formatting, blog, blog post, blog page, icon, audience, icon |
| Networks  | Internet, network, World Wide Web, local areanetwork (LAN), router, wide area network (WAN), network cables, wireless |
| Binary  | Base 10, binary, base 2, bit, denary, decimal, byte, digit, integer, megabyte (MB), machine code, kilobyte (KB), nibble, tetrabyte (TB), variable, transistor |