**Software Development Environment**

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| **Concept / Topic** | **Reference (Module or Worksheet)** | **Located (Checkmark)** | **Understood**  **(Checkmark)** |
| Difference between “Terms of Service” and “Privacy Policy” | Module A.2 GitHub Part 1 |  |  |
| Efficient File & Folder Structure | Module C.1 File System Organization |  |  |
| File & Folder Synchronization | Module C.1 File System Organization |  |  |
| Features of an Integrated Development Environment (IDE) | Software Environment Worksheet |  |  |
| Features of Version Control System | Software Environment Worksheet |  |  |

Practice Questions:

**Computer Hardware & Software**

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| **Concept / Topic** | **Reference (Module or Worksheet)** | **Located (Checkmark)** | **Understood**  **(Checkmark)** |
| Main Computer Components  (Diagram / Location) | Module A.4 Computing History  Module C.2 Component Presentation |  |  |
| Main Computer Components  (Function) | Module A.4 Computing History  Module C.2 Component Presentation |  |  |
| Main Computer Components  (History) | Module A.4 Computing History  Module C.2 Component Presentation |  |  |
| Main Computer Components  (Capacity) | Component Capacities Worksheet |  |  |
| Difference between “Cache Memory” and main memory. | Cache Memory Worksheet |  |  |
| Different types of “Cache Memory” | Cache Memory Worksheet |  |  |
| Bits and Powers of 2 | Bits & Bytes Worksheet |  |  |
| Computer Memory Organization  (Bytes and Words) | Bits & Bytes Worksheet |  |  |
| Computer Memory Organization  (Integers, Negative Numbers, etc.) | Bits & Bytes Worksheet |  |  |
| ASCII Characters & Strings | Bits & Bytes Worksheet |  |  |

Practice Questions:

**Software Design**

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| **Concept / Topic** | **Reference (Module or Worksheet)** | **Located (Checkmark)** | **Understood**  **(Checkmark)** |
| Input-Output Analysis  (Input objects, output objects, actions) | Module A.1 Simon Icebreaker |  |  |
| Flowchart Symbols & Conventions | Module A.1 Simon Icebreaker |  |  |
| Syntax Error  (Definition and example) | Software Environment Worksheet  Module B.1 Arduino Web IDE |  |  |
| Logic Error  (Definition and example) | Software Environment Worksheet  Module B.1 Arduino Web IDE |  |  |
| Run-Time Error  (Definition and example) | Software Environment Worksheet  Module B.1 Arduino Web IDE |  |  |
| External Documentation  (Arduino Language Reference) | Module B.1 Arduino Web IDE |  |  |

Practice Questions:

**Arduino Programming**

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| **Concept / Topic** | **Reference (Module or Worksheet)** | **Located (Checkmark)** | **Understood**  **(Checkmark)** |
| Structure of a basic program | Module B.1 Arduino Web IDE |  |  |
| Stricture of basic statements  (Built-in procedures and assignments) | Module B.1 Arduino Web IDE |  |  |
| Structure of comments (Line & block comments) | Module B.1 Arduino Web IDE |  |  |
| “for” Loop (Definition and Use) | Module B.2 More Arduino Projects |  |  |
| “if” statement  (Definition and use) | Module B.2 More Arduino Projects |  |  |
| Comparitors “<”, “<=”, etc. | Module B.2 More Arduino Projects |  |  |
| Incrementors “++”, “=+”, etc. | Module B.2 More Arduino Projects |  |  |
| Serial Console Output  (Serial.println, etc.) | Module B.3 Arduino Serial Monitor |  |  |
| Serial Condole Input  (Serial.parseInt, etc.) | Module B.3 Arduino Serial Monitor |  |  |
| Global Constants & Variables  (Definition and Use) | Module B.4 Simple Procedure |  |  |
| Code Block  (Definition and Use) | Module B.4 Simple Procedure |  |  |
| Local Variable (in a Code Block)  (Definition and Use) | Module B.4 Simple Procedure |  |  |
| Custom Procedure Code  (Definition & Use) | Module B.4 Simple Procedure |  |  |
| Meaning & Use of “void”, “int” etc. | Module B.4 Simple Procedure |  |  |
| Procedure Variables  (Definition & Use) | Module B.4 Simple Procedure |  |  |

Practice Questions:

**Topic**

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| **Concept / Topic** | **Reference (Module or Worksheet)** | **Located (Checkmark)** | **Understood**  **(Checkmark)** |
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Practice Questions: