****

**Knowledge Rich Curriculum Plan**

Year 8 - Topic 4: Computer Systems



| **Lesson/Learning Sequence** | **Intended Knowledge:**  *Students will know that… Students will know how to…* | **Tiered Vocabulary** | **Prior Knowledge:**  *In order to know this… Students need to already know that…* | **Assessment** |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **1 hardware or software** | * The difference between hardware and software * The difference between input and output devices * How computer systems require both input and output devices to function | Hard ware  Soft ware  Storage  Input  Device  Output  RAM  ROM  CACHE | * What are examples of computer systems * Recognise that computer systems can be embedded into other devices | Questioning  Worksheet |
| **2 - Input, Process, Outputs** | * *To be able to explain how an input is process into an output* * *Describe of examples of how the this process works with real world examples* * *You will evaluate how the different devices are used and explain what data they hold.* | Storage  Input  Device  Output  Process  RAM  ROM | * The difference between hardware and software * The difference between input and output devices | Retrieval Task  Questioning  Worksheet |
| **3 – RAM vs ROM** | * identify the different types of primary storage within a computer system * discuss types of primary memory within a computer system discussing in detail the purpose of each memory type * analyse the importance of each type of primary memory within a computer system discussing in detail the purpose of each memory type. | Hardware  Soft ware  Storage  Input  Device  Output  Process  Memory  Performance  RAM  ROM  CACHE  Clock speed  CPU | * To be able to explain how an input is processed into an output * To be able to identify real world examples of input and output devices | Questioning  Retrieval Task  Worksheet |
| **4** | * identify and explain the purpose of the CPU * discuss the different types of components with in the CPU * Analyse and explain the fetch, decode and execute cycle | Input  Device  Output  Process  Memory  Performance  RAM  ROM  CACHE  Clock speed  CPU  Decode  Execute  Fetch | * To be able to identify how a CPU works * To be able to identify different computer systems | Questioning  Worksheet  Retrieval task |
| **5 – storage devices** | * To be able to identify different storage devices * To be to identify the advantages of disadvantages of different storage devices | Input  Output  Storage  Memory  Floppy disc  USB  Hard disk  DVD  Storage | * To explain how a storage device works and how these work | Questioning  Worksheet  Retrieval task |
| **6 – end of unit assessment** | * Students will know how to answer the end of unit assessment using their prior knowledge. * Students will know how to improve on their work from previous lessons in the unit. | Students will need to use all of the vocabulary from the previous lessons. | * Students need to know all of the intended knowledge from the previous lessons in the unit. | End of Unit Assessment  SSS Task |