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**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**  |
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|  |  |  |  |  |
| **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 InputDevice Output RAM ROM CACHE  | * What are examples of computer systems
* Recognise that computer systems can be embedded into other devices
 | QuestioningWorksheet |
| **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 InputDevice Output Process RAM ROM  | * The difference between hardware and software
* The difference between input and output devices
 | Retrieval TaskQuestioningWorksheet |
| **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 InputDevice Output Process Memory Performance RAM ROM CACHE Clock speedCPU | * 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 TaskWorksheet |
| **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
 | InputDevice Output Process Memory Performance RAMROM CACHE Clock speedCPUDecode Execute Fetch  | * To be able to identify how a CPU works
* To be able to identify different computer systems
 | QuestioningWorksheetRetrieval 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 USBHard diskDVDStorage  | * To explain how a storage device works and how these work
 | QuestioningWorksheetRetrieval 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 AssessmentSSS Task |