Foxford Learning Plan

Autumn 1

GCSE Computer Science

System Architecture

Key Vocabulary

CPU	Performs calculations and logic checks. It may take several F-E-Cycles for a calculation to be finished. Intermediate results are stored in the **accumulator**
ALU	VERY FAST memory. Instructions that are carried out frequently are stored there so that they do not have to be FETCHED [saving time]
Registers	Small amounts of high-speed memory contained within the CPU. Registers store data that is needed during the F-E-C
Cache	Is very fast (and expensive) memory that can store frequently used data or instructions
Program Counter (PC)	Holds the memory address of the next instruction to be fetched from primary memory
MDR	Holds the contents found at the address held in the MAR, or data which is to be transferred to primary memory
MAR	Holds the address of the current instruction that is to be fetched from memory, or the address in memory to which data is to be transferred
Cores	Each processing unit inside a CPU is called a CORE. The more cores a CPU has, the more instructions it can process in a given time (i.e. PARALLEL PROCESSING)
Embedded systems	**Embedded systems** are small computer systems built inside larger devices or pieces of equipment They are designed to do one specific task (rather than range of task).

Key Skills

Over the course of the topic, I will be able to: -
Identify the best processor for a given task
Identify the features of an embedded system
How to compare the speeds of a CPU
Explain the function of the CPU
Explain what a CPU is
Explain the stages of the F-D-E





I will Understand

1. How the CPU Functions
2. How data is processed by the CPU
3. Identify the best processor for a given task
4. How the components of a CPU work together
5. The function of each part of a CPU
6. The history of a computer