

Transition Task

Making a start on your research and investigation.

Task 1 :

Some of your homework tasks next year will involve independent research and the production of notes to help you to remember a topic.

By completing this activity you will know the structure of a typical processor and be able to name and give the function of key components.

With the use of the internet, research into the role of the processor in the computer, what the key components listed below are and what they are used for.

- ALU
- Control Unit
- Program Counter
- Accumulator
- Memory Data Register
- Memory Address Register
- Current Instruction Register

You can use any resources to help you produce a document/poster/essay to help you to remember the names and functions of components.

Task 2 :

In your studies on this course, you will need to reference real world examples within your work. With the use of the course outline, take a look at technology related websites to read about current IT news stories. (Some of the websites below may help)

You do not need to write your research down.

Engadget <http://www.engadget.com/>

Gizmodo <http://www.gizmodo.co.uk/>

BBC News <http://news.bbc.co.uk>

ZDNet <http://www.zdnet.co.uk>

Cnet <http://www.cnet.com>

V3 <http://www.v3.co.uk>

Tech Radar <http://www.techradar.com>

The Register <http://www.theregister.co.uk> – Technology news

Specification of what you will learn on the topic of processors while undertaking this course.

1.1 The characteristics of contemporary processors, input, output and storage devices	
Components of a computer and their uses	
1.1.1 Structure and function of the processor	<ul style="list-style-type: none">(a) The Arithmetic and Logic Unit; ALU, Control Unit and Registers (Program Counter; PC, Accumulator; ACC, Memory Address Register; MAR, Memory Data Register; MDR, Current Instruction Register; CIR). Buses: data, address and control: how this relates to assembly language programs.(b) The Fetch-Decode-Execute Cycle; including its effects on registers.(c) The factors affecting the performance of the CPU: clock speed, number of cores, cache.(d) The use of pipelining in a processor to improve efficiency.(e) Von Neumann, Harvard and contemporary processor architecture.
1.1.2 Types of processor	<ul style="list-style-type: none">(a) The differences between and uses of CISC and RISC processors.(b) GPUs and their uses (including those not related to graphics).(c) Multicore and Parallel systems.