

## Year 11 into 12 Induction

**SUBJECT NAME: AAQ BTEC National in Information Technology (Extended Certificate)**

**Qualification/Level:** BTEC National

**Examination Board:** Edexcel/Pearson

### Induction lesson one overview:

#### 1-hour lesson:

#### Information Technology Systems

This introductory lesson will explore key system software needed to allow interaction with devices. You will understand the history of Operating Systems, and how the choices made by consumers have changed over time. You will understand what operating systems are responsible for, and how they manage resources in the device. You will consider what factors are important when selecting an operating system for devices on your network. Finally, you will independently research the different types of operating systems available, their purpose and where they are commonly used.

### Induction lesson two overview:

#### 1-hour lesson:

#### Website design

In this introductory lesson, you will learn that modern lifestyle are digitally driven, as a website developer you must combine different tools and techniques to capture and maintain the user's interest. You need to understand and acquire the necessary skills to find solutions to a variety of scenarios and problems. Many software developers, database experts and systems managers need web-client development skills as an integral part of their overall portfolio of expertise. You will learn about the different types of purposes and functions websites perform, and consider the importance of design. You will then independently research and record the different types of page layout and the benefits they offer to the user.

## Summer Transition Task

The following tasks are to be completed over the summer break. They will be checked by your tutor in September and handed in to your teacher in your first lesson. Please clearly label work with your name and subject. Please place work in a clear plastic wallet.

The BTEC National in Information Technology is comprised of a number of units that you will undertake on a modular basis over the course of 2 years. This transition task relates specifically to two of the units, one of which is assessed via an examination, the other internally. You will complete both units during Year 1 of the course.

### Unit 3: Web Development

As part of your course on Website Development (unit 3) you will use HTML, CSS and JavaScript. We need you to complete the following course:

<https://www.futurelearn.com/courses/a-beginners-guide-to-web-development-with-html5>, or  
<https://www.youtube.com/watch?v=Eb3IOiukwAQ> depending on your learning preference.

*The FutureLearn course is available for free and will take you approximately 6 hours to complete (but be careful – the course is only free for three weeks from the time you start on it!)*

- Once you are happy with designing a **simple** web page, please:
  - 1. Design your page (sketch and write content – evidence provided by photos of your work pasted into the document)
  - 2. Get views on the design (feedback)
    - Change it as needed
  - 3. Implement it (make it), and screenshot the source code
  - 5. Get views (feedback)
  - 6. Evaluate it
- Prove the above via a **typed report**, documenting the process

## **Unit 1: Information technology systems – Theory**

### **Task 1**

Operating systems are used to network, deal with security, memory management and multi-tasking.

Explain the role of the operating system, in detail, in managing:

- A3.2.1 networking
- A3.2.2 security
- A3.2.3 memory management
- A3.2.4 multi-tasking
- A3.2.5 device drivers
- A3.2.6 user accounts

### **Task 2**

Research the following key terms and write a detailed definition for each:

1. Device Driver
2. Interface
3. Platform
4. GUI
5. Codec
6. Automation
7. Network protocol
8. SaaS
9. PaaS
10. Latency

If you have any questions, please email [jreece@manor.school](mailto:jreece@manor.school)