ICT

Functional Skills ICT

Functional ICT provides learners with the skills and abilities they need to take an active and responsible role in their communities, in their everyday lives, workplaces and educational settings. Functional ICT requires learners to be able to use ICT in ways that make them effective and involved as citizens, able to operate confidently in life and to work in a wide range of contexts.

Functional skills ICT assesses 3 interrelated skills;

- ❖ Using ICT
- ❖ Finding and selecting Information
- ❖ Developing, presenting and communicating information

The curriculum requires that studenst learn to make appropriate choices about when and where to use technology, including to manage themselves, their work and their learning. Students would also have opportunities to exhibit their functional skills by applying their learning to real-world situations within a range of contexts and in other subject and areas of learning.

The OCR functional qualification for ICT is in two levels; Level 1 and Level 2.

At level 1 we will cover the following;

- identify the ICT requirements needed to solve a straightforward task and apply their knowledge and understanding to produce an appropriate solution (complexity)
- apply their knowledge and skills within a non-routine but familiar context (familiarity)
- apply a range of techniques in several applications to produce an appropriate outcome (technical demand)
- solve problems that are essentially tutor guided, demonstrating the confidence to make informed choices and knowing when to seek guidance (independence).

At level 2 we will cover the following;

- analyse multi-step tasks and separate the components, identifying the relevant ICT requirements and applying their knowledge and understanding to produce an appropriate solution (complexity)

- apply their knowledge, skills and understanding within non-routine and non-familiar contexts (familiarity)
- demonstrate the application of a wide range of techniques across several applications to produce an appropriate outcome (technical demand)
- Solve problems independently, overcoming challenges to produce successful outcomes (independence)

COMPUTER SCIENCE GCSE

OCR's GCSE (9–1) in Computer Science will enable students to;

• understand and apply the fundamental principles and concepts of Computer Science, including abstraction, decomposition, logic, algorithms, and data representation

• analyse problems in computational terms through practical experience of solving such problems, including designing, writing and debugging programs

• think creatively, innovatively, analytically, logically and critically

• understand the components that make up digital systems, and how they communicate with one another and with other systems

• understand the impacts of digital technology to the individual and to wider society

• apply mathematical skills relevant to Computer

Content Overview

Topic	Includes
Computer Systems	• Systems Architecture • Memory & Storage • Wired and wireless networks • Network topologies, protocols and layers • System security • System software • Ethical, legal, cultural and environmental concerns
Computational thinking, algorithms and programming	• Algorithms • Programming techniques • Producing robust programs • Computational logic • Translators and facilities of languages • Data Representation

Programming Project	• Programming techniques • Analysis • Design • Development • Testing and evaluation and conclusions