

School Curriculum Subject Guide

Computing and Information Communication Technology

(last updated in April 2016)

According to recent studies, the UK is facing significant skills shortage, with 1.4 million “digital professionals” estimated to be needed over the next five years. Due to this, there is a wider push to increase digital skills among young people to help fill the digital skills gap. With these recent changes in Computing Education, the policy will need to take into account these changes and reflect on what the desired outcomes for our students will be.

Aims

The National Curriculum for computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Can analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Are responsible, competent, confident and creative users of information and communication technology

Attainment Targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

For our staff to:

- Use ICT facilities effectively for curriculum planning and delivery
- Have a knowledge of the software available for use with a variety of students with differing needs and how to access these resources
- Use the internet to access resources for curriculum planning and enrichment as well as for communication with other professionals and the production of resources to support learning
- Facilitate communication between students and their peers both on site and beyond Young Epilepsy.

Identified outcomes

- Students will be regularly using ICT for everyday learning

- Students will be comfortable with using access devices to ICT as appropriate such as QWERTY Keyboard, touch screen, adapted keyboard, interactive whiteboard, rollerball and mouse
- Students will experience and be comfortable with using the internet as an additional resource
- Students will be increasingly using ICT to work and interact with each other
- Staff will feel confident using ICT within their teaching and to support their planning
- Staff will have a basic knowledge of the software and hardware available and how it can be effectively deployed to support the students

All Students

- To use logical reasoning to predict the behaviour of simple programs
- To use technology purposefully to create, organise, store, manipulate and retrieve digital content
- To recognise common uses of information technology beyond school
- To use technology safely and respectfully, keeping personal information private, identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies
- To design, write and debug programs that accomplish goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- To use sequence, selection and repetition in programs, work with variables and various forms of input and output
- To use logical reasoning to explain how simple algorithms work and to detect and correct errors in algorithms and programs
- To understand computer networks including the internet, how they can provide multiple services, such as the World Wide Web and the opportunities they offer for communication and collaboration
- To use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content
- To select, use and combine a variety of software, (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact