ICT
Curriculum Map: Year 7

Content is mapped to the Computing National Curriculum

AUTUMN TERM

INTRODUCTION TO ICT

Students are introduced to the subject and school computer network. They will familiarise themselves with The MS Windows Operating System and be able to confidently navigate their way around the desktop, using the necessary tools

NC7:
undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users

NC8:
create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability

E-SAFETY:

Students understand how to be confident online. They learn about risks and issues and how to keep themselves safe online. Students will understand where to go for help and support. Students will produce MS Office content to demonstrate their knowledge.

NC9:
Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct and know how to report concerns

NC7 & **NC8**: See AUTUMN TERM

SPRING TERM

UNDERSTANDING COMPUTERS

Students understand what computers are and how they work. They will look at hardware and software as well as input and output devices. Students will look at how computers communicate with each other and other systems.

NC5:
Understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems

NC6:
Understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits

DIGITAL LITERACY: SOFTWARE

DIGITAL LITERACY is about developing understanding, skills and use of technology necessary in our Digital World.

Students will study the effective use of software and standard tools

NC7 & **NC8**: See AUTUMN TERM

SUMMER TERM

SPREADSHEETS

Students have an introduction to the basic concepts of MS Excel. They will become familiar with terminology and that it is used for modelling.

NC1:
Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems
 understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem

NC2:
Understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem

BLOCK PROGRAMMING:

Students use block-programming to create a program based on an algorithm. The Scratch language is used as an introduction to coding.

NC2: See SPREADSHEETS

NC3: use two or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions