Curriculum Intent of
ICT/COMPUTING

September 2021

KS3 ICT/Computing
Intent

To equip students to use computational thinking and creativity to understand and change the world. The core of computing is computer science - the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Skills
The core skills students will develop are:

- 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; use logical reasoning to compare the utility of alternative algorithms for the same problem

- use 2 or more programming languages,

- create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability

Knowledge
The core knowledge students will develop is:

- to understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation

- to analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems

- to evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems

- to be responsible, competent, confident and creative users of information and communication technology