Computer Science students

Vision
An experience of how technology influences day to day life, through various forms. Students will have the chance to immerse themselves into the world of programming and algorithmic thinking.

Intent
What will they have in terms of qualifications
At KS3 students will have developed their computational thinking skills to enable them to break down various problems. In addition to this they will be able to use technology to its full capabilities whilst being cautious of its dangers.

At KS4 students will have the opportunity to complete the GCSE in Computer Science which will provide a deeper understanding of the topics covered in KS3.

Challenge
Students will be challenged at various levels through the complexities of the tasks set, for example when developing code some students may prefer the more user-friendly approach of a "Block" based programming language rather than a text-based language such as Python.

In addition to gaining a GCSE in Computer Science they will have the opportunity to explore various programming languages in different environments.

Accessibility
In order to make the subject accessible to all students there will be resources provided via the schools Teams and Moodle websites in the form of videos as well as previous lessons so that the students can reflect on what they have learnt previously. Various levels of challenge will be in built into the lessons to provide a flexible approach.

At KS4 students will have the opportunity to experience a one to one approach which allows for students to identify areas of strength and improvement.

Choose what's on the curriculum
The curriculum which has been developed for the Computer Science options has been based upon the National Curriculum in a "real life" scenario. This gives the students the opportunity to relate the curriculum to scenarios which they may encounter on a day to day basis. This will help to promote the foundation of skills needed for the students to

progress to Key Stage 4 whereby the students would further build upon these.

Sequencing
The curriculum will be sequenced throughout Key Stage 3 based upon its difficulty. Students will be introduced to basic concepts in year 7 following through to years 8 and 9 developing more intermediate skills. At GCSE the students will begin more advanced topics which will build upon the skills that were developed in KS3.

Retain and memorise
In order to retain and memorise content students will have studied topics which often overlap such as Sequencing and Programming. By doing so they will be using transferable skills which will require skills to be used from previous topics. In addition to this the use of formal and summative assessment will be used to encourage the students to revisit previous topics.

Decisions based on skills or knowledge or both

The curriculum implemented will be both knowledge and skills based, this allows the students to gain a wholesome experience in the subjects both practically and theoretically.