Subject	Computing	Curriculum Lead	Mr M Karatzas

Curriculum Intent Summary:

Intent

The Computing curriculum at the Ursuline Academy will be broad, balanced, with the breadth and depth that will support students whichever pathway they choose at Key Stage 4 and beyond.We will provide students with an understanding of the foundations of computing, to help them better apply information technology and better understand the implications of the technologies they use. The curriculum will use computational thinking to develop confident, creative and resilient problem solvers and ensure strong links to other curriculum subjects. We will also teach our students of the role women have played an continue to play in the development of computer science. All of this will be done within the framework of Gospel values and our unique ethos as a Catholic school.

Implementation

Students begin to study Computing in year 7 in standalone lessons and this continues throughout Key Stage 3. The Program of Study reflects the 3 strands of the National Program of Study: It includes Information Technology, Computer Science and Digital Literacy. In the ICT strand children learn how to solve problems using suitable software, for example raising money for a charity using Office style applications such as spreadsheets and databases. In the Digital Literacy strand they learn how to stay safe on line and how to think critically about their use of computers, for example by taking part in the UKs National Safer Internet Day every February. In the Computer Science strand students learn how computers and computer networks work, and how to solve problems by thinking like a computer. They will also have experience of using two different programming languages, Scratch which is a block style language and Python which is text based. Each teaching unit is sequenced and teachers use formative assessment and supportive questioning to help deepen each childs understanding of the subject.

At Key Stage 4 students have the option to study GCSE Computer Science. Students further develop their understanding of the Python Programming language and key computational skills such as algorithmic thinking, abstraction and decomposition. Students are encouraged to make cross curricular links to other STEM subjects and take part in the many STEM activities run by the school.

Impact

Students are regularly tested to monitor their progress and support their learning. They are encouraged to become more independent in their work through being set challenging classwork and homework. Students with additional needs are supported in class with differentiated work and encouraged to become confident users of computer systems. We strive to equip all of our students with the skills needed to stay safe online, and be able to think independently . We seek to emsure they achieve the highest grades and are prepared to take the next step in their education whether it involves studying Computer Science or not.