INFORMATION TECHNOLOGY

Year 7

What are the aims and intentions of this curriculum?

The aim of our Key Stage 3 Curriculum is to ensure students experience a broad and balanced experience in ICT and computer science which prepares them effectively for the work place and their future careers. The curriculum incorporates teaching specific software applications which they will experience in the work place and ensuring they can understand and apply the fundamental principles and concepts of computer science. Students are taught to analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems. They can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems and ultimately are responsible, competent, confident and creative users of information and communication technology.

Term	Topics	Knowledge and key terms	Skills developed	Assessment
Autumn 1	Computer Hardware and Software. Computer Networks.	1/. Students can explain what is meant by computer hardware and can give examples. 2/. Students can explain the difference between hardware and software. 3/. Students can explain what a computer network is. 4/. Students can login to the computer network.	Students can define the term “Computer Hardware and give examples?” Students can explain what “Computer Software” is. Students can explain what a “Computer Network” is and identify some advantages. Students can login to the computer network and know how to save and retrieve their work. The students understand what the Internet is.	Hardware and Software Poster.
	E-Safety	1/. Students are aware of the dangers of the internet and the need to stay safe online. 2/. Students produce a range of internet safety products using appropriate software including power point presentations, leaflets and posters to promote the need for e-safety.	Students identify the following dangers associated with Internet use: E-Safety Cyberbullying Sexting Online Grooming Video chat and webcams Downloading Social networking Location Services	Power Point presentation presented to the class on E-Safety.

Autumn 2	Computer Modelling and Spreadsheets	1/. Students can explain what a spreadsheet is and when a spreadsheet might be used. 2/. Students can identify the main components of a spreadsheet including, cells, columns, rows, cell addresses and formulae. 3/. Students can load Excel and create a simple spreadsheet using basic formulae. 4/. Students can use simple and advanced formulae.	Students understand what a computer spreadsheet is why they are used. Students can create simple spreadsheets. Students are able to use simple and advanced formulae to create accurate and effective spreadsheets. Students understand the term "Modelling" and can produce working spreadsheet models and explain their conclusions result from the model. Students can undertake the following using a spreadsheet, identify spreadsheet components, can use spreadsheet to model information, can use formulae in spreadsheets, can use data validation and verification effectively.	Spreadsheet and Modelling knowledge and understanding practical activity and written test.
Spring 1	Computer Modelling and Spreadsheets	1/. Students can create macros to automate tasks. 2/. Students can use a range of different presentation techniques using a spreadsheet. 3/. Students can use spreadsheets to model information.	Students can create macros to automate tasks. Students can create a range of graphs and other presentation outputs and model information.	Spreadsheet and modelling assessment task.
Spring 2	Introduction to Databases	1/. Student understand the concept of databases. 2/. Student can identify the advantages and disadvantages of databases. 3/. Students can simple and advanced relational databases. 4/. Students can interrogate databases. 5/. Students can use a range of verification and validation rules.	Students can explain the meaning of the term databases and identify the key components. They can create simple and relational database and interrogate them. Students can use data validation and verification.	Database practical task and written test.
Summer 1	Databases continued	1/. Students can create a menu screen in a databases. 2/. Students can create input forms in databases. 3/. Students can input images into a databases.	Students are able to create a menu screen or dash board in a databases. They can create input forms to improve entry efficiency. Students can input images into a database.	Database practical task and written test.