

## Computing

Students follow the **National Curriculum Programme of Study for Computing**.

They work on a variety of projects which cover the attainment targets for the revised national curriculum. These targets are broken down into assessment criteria across three strands: Computer Science, Digital Literacy and Information Technology.

They have "hands-on" experience of how a computer works through their encounters with the innovative "Raspberry Pi" handheld computers and build on their KS2 knowledge of coding to use algorithms for designing and solving a range of computational thinking problems. Concepts such as abstraction, decomposition and the Binary number system are unravelled and links with statistics in the maths curriculum are made through collecting and representing data digitally in real-life scenarios.

E-safety knowledge is developed by studying the CEOP's

(<https://www.thinkuknow.co.uk/>) KS3 resources which includes recognising inappropriate content online, inappropriate contact, conduct rules and how to report concerns. Students take part in the annual "Safer Internet Day"

(<https://www.saferinternetday.org>) and have created their own BSL videos on topics such as cyberbullying. One group won a Herts e-safety competition, "*Don't feed the trolls*" with their video entry. Some groups are also taking an e-safety qualification from the British Computer Society exam board at Level 1, (GCSE Grade E). This was piloted for the first time last academic year and served to further improve and consolidate their e-safety knowledge. The students have and will also continue to contribute to the new [Heathlands Esafety website](#), which is part of the new [Heathlands Computing website](#).

In Year 9 students take exams to achieve the "*Edexcel Functional skills ICT qualification at Entry Level*", where they use their problem solving skills in the Digital Literacy and I.T. environment to practically demonstrate use of software applications. This provides a strong foundation for their KS4 studies and equips them with the expectations of the examination process and how they can grow to be confident and successful achievers.

The students use digital media to present and evaluate their projects and now have a newly-built media studio in school to develop these skills in tandem with the computing curriculum. Students have also recently taken part in a "*Media in the computing curriculum*" project which was run by "Into film". A well-known deaf film director, Louis Neethling, was asked to run this project which taught the students film production through workshops including make-up, stop animation, lighting, video editing and the students then produced their own film. The students' film was given a premiere screening at the local cinema and the experience was very stimulating and motivating. Last year the film won three different film awards, which was exceptional news. This legacy is being continued through specific media projects in the computing curriculum and the pilot of a new course in KS4, a GCSE in Creative Computing.

# US1

	Autumn Term	Spring Term	Summer Term
	<b>Computer Science-</b> Using algorithms	<b>Computer Science-</b> Studio Code, "Angry Birds" and "Flappy bird", Hour of Code	<b>Information technology -</b> Introduction to Word Processing
	<b>Computer Science-</b> Design an app project	<b>Digital Literacy &amp; Information technology –</b> Creative media project, website design	<b>Information technology</b> Introduction to spreadsheets & data
	<b>Digital Literacy -</b> Introduction to film-making: Windows Moviemaker/imovie	<b>Digital Literacy -</b> Esafety	<b>Digital Literacy -</b> Creative media project
	<b>Information technology -</b> input and output devices		<b>End of year assessment</b>

# US2

	Autumn Term	Spring Term	Summer Term
	<b>Computer Science- HTML, Unit 1</b>	<b>Computer Science- Introduction to binary</b>	<b>Information Technology – functional skills, word processing</b>
	<b>Computer Science- Design an app project</b>	<b>Information technology – Hardware and processing</b>	<b>Information technology – Spreadsheets &amp; data project</b>
	<b>Computer Science- Create an app project</b>	<b>Digital Literacy - Esafety, part 1</b>	<b>Digital Literacy – Esafety part 2</b>
	<b>Digital Literacy &amp; Information technology – Creative media project, website design</b>		<b>End of year assessment</b>

# US3

	Autumn Term	Spring Term	Summer Term
	<b>Computer Science- Using algorithms</b>	<b>Digital Literacy - Creative media film project, plan and film</b>	<b>Information technology - Word Processing, functional skills</b>
	<b>Computer Science- design an app project</b>	<b>Digital Literacy - Creative media film project, process edit and evaluate</b>	<b>Information technology Spreadsheets &amp; data</b>
	<b>Digital Literacy &amp; Computer Science - create and use an app project</b>	<b>Digital Literacy - Esafety</b>	<b>Digital Literacy – Esafety part 2</b>
	<b>Information technology – networks and communication</b>		<b>End of year assessment</b>

# US4

	Autumn Term	Spring Term	Summer Term
	<b>Computer Science-</b> design an app project	<b>Computer Science-</b> Working in binary, binary addition	<b>Information Technology –</b> functional skills, word processing
	<b>Digital Literacy &amp; Computer Science -</b> create and use an app project	<b>Digital Literacy –</b> Esafety qualification	<b>Computer Science –</b> Introduction to Python
	<b>Information technology –</b> networks and communication	<b>Digital Literacy –</b> Esafety qualification exam	<b>Digital Literacy &amp; Information technology –</b> Introduction to Premiere Pro CC video editing
			<b>End of year assessment</b>

# US5

	Autumn Term	Spring Term	Summer Term
	<b>Computer Science</b> - design an app project	<b>Digital Literacy</b> - Creative media film project, plan and film	<b>Information Technology</b> – functional skills: word processing, spreadsheets, esafety
	<b>Digital Literacy &amp; Computer Science</b> - create and use an app project	<b>Digital Literacy</b> - Creative media film project, process edit and evaluate	<b>Computer Science</b> – Introduction to Python
	<b>Information technology</b> – networks and communication	<b>Digital Literacy</b> - Esafety	<b>Information technology</b> – Functional skills part 2
			<b>Information technology</b> – Functional skills exam

# US6

	Autumn Term	Spring Term	Summer Term
	<b>Computer Science-</b> design an app project	<b>Computer Science-</b> working in binary - binary addition	<b>Information Technology –</b> functional skills: word processing, spreadsheets, esafety
	<b>Digital Literacy &amp; Computer Science -</b> create and use an app project	<b>Digital Literacy -</b> Creative media film project, plan and film	<b>Computer Science –</b> Introduction to Python
	<b>Information technology –</b> networks and communication	<b>Digital Literacy -</b> Creative media film project, process, edit and evaluate	<b>Information technology –</b> Functional skills part 2
			<b>Information technology –</b> Functional skills exam