



## Year 9 Syllabus in a nutshell

### COMPUTING AND ICT



CHALLENGE • NURTURE • INSPIRE





## Year 9 Syllabus in a nutshell – Computing And ICT

Year 9 provides students with an opportunity to develop their Computing, ICT and Digital Literacy skills. The topics covered allow students to experience the differences between each subject and help them make an informed decision on which subject to follow at GCSE and or A Level.

Throughout the year students will also have the opportunity to develop their Digital Literacy, taking part in both Duke Of York's IDEA and Google's Digital Literacy Programs.

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Theme	App Development	Computer Programming	Graphic Design	Web Design	Video Editing	Robotics
<b>Software To Be Used And Skills To Be Developed</b>	App Development MIT's App Inventor, Balsamiq Wire Frame, Adobe XD	Python	Adobe Photoshop, Adobe Illustrator	Adobe Dreamweaver Mobi Rise	Adobe Premier Pro Adobe Audition	Lego Mindstorms
<b>Assessment</b>	App Development Project	Completed Computer Programs	Completed Packaging For DVD	Fair Trade Web Site	Planet Earth Trailer	Penguin Rescue Solution
<b>Prep</b>	IDEA Bronze And Silver Awards	IDEA Bronze And Silver Awards	IDEA Bronze And Silver Awards	IDEA Bronze And Silver Awards	Google Digital Literacy	Google Digital Literacy

Unit Of Work	Key Understanding / Skills
<b>App Development</b>	<ul style="list-style-type: none"> <li>Understand what an app is and how they are designed and created</li> <li>Understand how an app is created from initial ideas through to programming and distribution</li> <li>Understand how to use a Wireframe to develop a design for an app for a specific purpose</li> <li>Understand how to create an app using MIT's App Inventor</li> <li>Develop digital literacy using IDEA Bronze And Silver Awards</li> </ul>
<b>Computer Programming</b>	<ul style="list-style-type: none"> <li>Understand what Computational Thinking is and how it is used to solve a problem</li> <li>Understand what an algorithm is</li> <li>Understand how a flow diagram can be used to help solve a problem and be used to develop an algorithm</li> <li>Understand basic python syntax and use this to write simple programs to solve specific problems</li> <li>Develop digital literacy using IDEA Bronze And Silver Awards</li> </ul>
<b>Graphic Design</b>	<ul style="list-style-type: none"> <li>Understand what an image is and what the different types of image are</li> </ul>



	<ul style="list-style-type: none"> <li>• Be able to explain the difference between vector and bitmap images and where they are used</li> <li>• Understand how to use a graphic manipulation program to create an image for a specific purpose and audience</li> <li>• Use features of a graphic manipulation program to select, transform, colour different parts of an image</li> <li>• Develop digital literacy using IDEA Bronze And Silver Awards</li> </ul>
<b>Web Design</b>	<ul style="list-style-type: none"> <li>• Understand what a web page is and how w pages are produced</li> <li>• Understand the difference between t internet and the world wide web.</li> <li>• Use html and css syntax to create web pag for a specific purpose and audience</li> <li>• Develop digital literacy using IDEA Bronze A Silver Awards</li> </ul>
<b>Video Editing</b>	<ul style="list-style-type: none"> <li>• Understand how to import media ready for editing</li> <li>• Understand how to create and edit a video editing project</li> <li>• Understand the difference between the timeline and other elements of the video editing application</li> <li>• Understand how to add media to the timeline</li> <li>• Understand how to edit (including trimming clips, slowing down / speeding up clips, adding still images, and text to a video editing project</li> <li>• Understand how to add transitions and effects to a video editing project</li> <li>• Understand how to export a completed video editing project</li> <li>• Develop digital literacy using Google's Digi Literacy Program</li> </ul>
<b>Robotics</b>	<ul style="list-style-type: none"> <li>• Understand what a robot is and how they are used in society</li> <li>• Understand what a sensor is and how it used to allow a robot to perform a specific task</li> <li>• Understand how a flow diagram can be used to help solve a problem and be used to develop a program to control a robot</li> <li>• Understand basic Lego Mindstorms EV3 syntax and use this to write simple programs to control a robot</li> <li>• Develop digital literacy using Google's Digi Literacy Program</li> </ul>