

Year 7		
Autumn term		
Topic Outline	Students should know and understand	Students should be able to
Digital literacy inc basic e-safety	<ul style="list-style-type: none"> • How to log on • Use of emails • File management • Basic e-safety when using social media etc • Basics in Word and OneNote 	<ul style="list-style-type: none"> • Log and save in appropriate place with appropriate file names • Organise areas with appropriate folders etc • Think about how they use social media in a safe and sensible manner.
E-safety - PowerPoint	<ul style="list-style-type: none"> • How to use PowerPoint effectively • Some basic principles of how to be safe online, including posting of images and location • The following terms: cyberbully, grooming 	<ul style="list-style-type: none"> • Produce a suitable PowerPoint suitable for their audience • Insert images, tables and videos • Use master slide effectively •
Spring term		
Text processing and presenting	<ul style="list-style-type: none"> • Use simple word / publisher functions such as: <ul style="list-style-type: none"> ○ Font tools ○ Bullet points / numbering ○ Headers and footers ○ Copy and paste ○ Using tables • Creating a form / questionnaire 	<ul style="list-style-type: none"> • Process and present text in an appropriate manner for the context. • Create an effective invitation to a party • Create a questionnaire using open and closed questions
How a computer works	<ul style="list-style-type: none"> • Difference between input and output devices • Computer components • Binary • Algorithms • Networking 	<ul style="list-style-type: none"> • Identify and explain a variety of input / output devices, components • Convert binary to denary and denary to binary • Most able should be able to do binary addition • Create a simple algorithm • Identify and explain the main types of networks

Summer term		
Spreadsheet skills	<ul style="list-style-type: none"> • be able to identify and name columns, row and cells • know what is meant by an active cell, a label and a value in relation to spreadsheets • know how to write basic formulae using BIDMAS • know what is meant by absolute cell referencing 	<ul style="list-style-type: none"> • be able to create a range of formulae in a spreadsheet • design and create spreadsheet model to solve a problem
Micro: bit	<ul style="list-style-type: none"> • The basic programming of a micro:bit • Some simple programming terminology, such as: <ul style="list-style-type: none"> ○ Sequencing ○ Input ○ Variable ○ loops 	<ul style="list-style-type: none"> • Identify and explain the key terms (input, variable and loop) • Create a simple programme • More able student should be able to create a complex programme

Year 8		
Autumn term		
Topic Outline	Students should know and understand	Students should be able to
Holidays 4 U (Spreadsheets/Databases/PowerPoint)	Spreadsheet - know how to: <ul style="list-style-type: none"> • replicate formulae • perform arithmetical calculations • to use fixed values in formulae • to find average, maximum and minimum values skills to find average, maximum and minimum values • to create graphs/charts 	<ul style="list-style-type: none"> • create formulae to carry out arithmetical calculations • use absolute cell references in formulae • find the average, maximum and minimum values in a list using formulae • create charts and graphs using spreadsheet data

	<p>Database – know how to:</p> <ul style="list-style-type: none"> • create a simple table, using appropriate field names • use a primary key • carry out some basic formatting <p>PowerPoint (recap/build on Yr7)</p> <ul style="list-style-type: none"> • use master slide • insert text and images • use transitions and animation effectively 	<ul style="list-style-type: none"> • can create and enter data into a single table database, • can use an auto-number primary key and basic formatting. • • Produce a suitable PowerPoint suitable for their audience (Holidays4U)
Spring term		
Topic Outline	Students should know and understand	Students should be able to
Python turtle	<ul style="list-style-type: none"> • Simple commands such as: forward, back, left and right • Iteration (loops) • Nested Iteration • Procedures 	<ul style="list-style-type: none"> • identify and use a range of commands in Python • apply a range of commands correctly to draw simple filled shapes with colour • design and create complex images using a range of commands
Digital graphics	<ul style="list-style-type: none"> • Some of the different techniques for customising and improving images. • They will use graphics editing software to learn some of the more commonly used techniques (see below) in order to ‘improve’ the appearance of various images. • They will learn how to: <ul style="list-style-type: none"> ○ Airbrush ○ Retouch ○ image manipulation 	<ul style="list-style-type: none"> • Carry out some simple operations to manipulate some photos, including: <ul style="list-style-type: none"> ○ Removal of red eye ○ Removal of spots and blemishes ○ Removing objects ○ Adding objects
Summer term		
Topic Outline	Students should know and understand	Students should be able to
Digital Media	<ul style="list-style-type: none"> • Some of the basic tags used in html • How to write some simple html • To insert an image into a webpage 	<ul style="list-style-type: none"> • Identify and explain the main tags used • Create a simple webpage

	<ul style="list-style-type: none"> • Hyperlink to another page and an external website 	<ul style="list-style-type: none"> • More able student should be able to create a multi-page website with hyperlinked pages
Project Criminals to include database and spreadsheets	<ul style="list-style-type: none"> • Sort data • Create and carry out a simple query • create queries using AND, OR and NOT • How create a form and report using a wizard • Export data to Excel • Analysis of data in Excel using average, max, min • Use the data to produce charts 	<ul style="list-style-type: none"> • can use appropriate naming conventions for my table, queries etc • can create a simple query

Year 9		
Autumn term		
Topic Outline	Students should know and understand	Students should be able to
Information Technologies (database)	<ul style="list-style-type: none"> • How to create multiple tables • How to make the relational database • How create a form and report without using a wizard 	<ul style="list-style-type: none"> • can create and enter data into multiple tables • can create a relational database • can create forms and reports • can create more complex queries
Business/Enterprise	<ul style="list-style-type: none"> • Ethically implications on Business and ICT • Environmental impacts that affect Business and ICT • Stakeholders • Copyright, patents and trademarks • Emerging technologies and their impact on Business 	<ul style="list-style-type: none"> • Write a report outlining a new product or service, taking into consideration any ethically and environmental issue it is aiming to solve.
Spring term		
Topic Outline	Students should know and understand	Students should be able to

<p>Computer Science -Python</p>	<ul style="list-style-type: none"> • Use a programming language, which is textual, to solve a variety of computational problems; make appropriate use of data structures; design and develop modular programs that use procedures and functions • Understand several key algorithms that reflect computational thinking (for example, ones for sorting and searching); use logical reasoning to compare the utility of alternative algorithms for the same problem. 	<ul style="list-style-type: none"> • Use data types correctly and convert between them when necessary • Write programs that use a loop to repeat a section of code • Write programs that use lists (known as 'arrays' in some languages) • Create and use a function with or without parameters • Find and debug syntax errors • Look at a given section of code and describe its function • Select the most suitable type of loop (for or while) for a given problem • Use counters correctly in conjunction with for loops • Create a list and append or change elements of the list • Explain the advantages of functions for reusable sections of program code
<p>Interactive Media</p>	<ul style="list-style-type: none"> • understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits • undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, 	<ul style="list-style-type: none"> • Explain that bitmap images are made up of individual pixels • Explain that in the case of a vector graphic, properties such as position, fill, stroke colour and dimensions are stored • Create and manipulate a simple group of objects to form a logo design

	<p>including collecting and analysing data and meeting the needs of known users</p> <ul style="list-style-type: none"> • create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability 	<ul style="list-style-type: none"> • Change the saturation, brightness and contrast in an image • Add text to a graphic • Use a graphics package to create an artwork; for example, a movie poster • Describe the characteristics of bitmap and vector graphics, state the advantages of each and give examples of situations in which each would be appropriate • Use fonts consistently and carefully to convey a particular message or image • Use white space effectively • Use layers in the creation of an artwork • Use the advanced facilities of a graphics package, for example to manipulate, cut out, and alter images • Create a series of two or more posters in the same style, using a combination of layered images and fonts effectively to convey a message
Summer term		
Topic Outline	Students should know and understand	Students should be able to
Synoptic project – Youth Club	<ul style="list-style-type: none"> • what software to use and when to use it • that they can carry out effective research • how to create a spreadsheet that meets the requirements of the scenario • how to create a database of all their inventory 	<ul style="list-style-type: none"> • The completed project should allow them to demonstrate competence in a breath of ICT / computing skills including, Spreadsheets, Databases, Web design and word. By creating the following: <ul style="list-style-type: none"> ○ Simple layout design

	<ul style="list-style-type: none">• how to write an appropriate letter to request funding• produce a website for their youth club	<ul style="list-style-type: none">○ Modelling spreadsheet for the costs / revenue○ Database of their inventory○ Letter requesting funding○ A website
--	--	---