Year 7	Term 1 (ICT)	Term 2 (Computer Science)	Term 3 (Business)

Unit(s) – As outlined in 39 week plans	o Standards and expectations
	o Baseline test
	o E-Safety project using Microsoft PowerPoint.
	o Microsoft Word formatting skills development.
	o Pre-production basic skills development.
	o Adobe Photoshop basic skills development.
		o Introduction to hardware and software.
		o Serif Movie Plus skills development.
		o Visual based programming skills using:
		    o Scratch
		    o Kodu
			o Project planning skills development.
			o Basic spreadsheet skills development using Microsoft Excel.
			o Basic database skills development using Microsoft Access.
			o Website production basic skills development using Serif Web Plus.

Key Retainable Knowledge & Skills	Department expectations, standards and procedures to be set. How to use the school network, email, electronic assessments and folder management. How to correctly and effectively use the basic tools within Microsoft Word, PowerPoint and Adobe Photoshop. The ability to be able to identify basic pre-production documents, these will be called upon throughout KS3 and KS4. ==ESafety topic==	An understanding of basic computing terminology including hardware and software. An understanding of basic computer hardware and software, including an understanding of their uses. An understanding of how to use Serif Movie Plus to create a simple video. A basic understanding of visual based programming.	A more detailed understanding regarding pre-production techniques used prior to creating a product. Basic Microsoft Excel spreadsheet skills development. Basic Microsoft Access database skills development. An understanding of how to use Serif Web Plus to create a simple website.
Key Technical Vocabulary	*Expectations, standards and procedures.* o Network o Acceptable Use Agreement o Outlook o Email o Subject o One drive o Folder o Sub Folder	*Hardware* o Monitor o Motherboard o Central Processing Unit (CPU) o Read Only Memory (ROM) o Random Access Memory (RAM) o Power Supply Unit (PSU) o Hard Drive o Mouse	*Pre-Production techniques.* o Mind Map o Mood board o House Style o Image wheel o Evaluation o Fit for purpose o Suitability o Appropriateness

Microsoft PowerPoint
- o Slide Master
- o Consistent
- o Animation
- o Transition
- o Text box
- o Formatting (Background colour)

==**ESafety**==

Microsoft Word
- o Header
- o Alignment
- o Formatting (Bold, italic, underlined)
- o Indentation

Adobe Photoshop
- o Mind map
- o Visualisation diagram
- o Layers
- o Image editing
- o Enhance
- o Improve
- o Export

- o Keyboard
- o Printer
- o Speakers
- o Input
- o Output
- o Process

Software
- o **System Software**
- o Windows
- o iOS
- o Android

- o **Application Software**
- o Microsoft Word
- o Microsoft PowerPoint
- o Adobe Photoshop
- o Serif Movie Plus

Serif Movie Plus
- o Timeline
- o Insert
- o Media (Images & Sound)
- o Title
- o Caption
- o Credits
- o Trim
- o Effects
- o Text

Visual based programming
- o Drag and drop
- o Order/Sequence
- o Iteration
- o Algorithm
- o Sprite

- o Branding
- o Planning
- o Research
- o Logo

Microsoft Excel (Spreadsheets)
- o Finances
- o Spreadsheet
- o Cell
- o Row
- o Column
- o Record
- o Formula

Microsoft Access (Database)
- o Record
- o Field
- o Search
- o Data Types
- o Primary key

Serif Web Plus
- o Source table
- o Features
- o Navigation
- o Index
- o Hyperlink
- o House style
- o Buttons

		o Motion o Control o Looks o Sensing o Operators o Sound o Pen o Variables o When o Do o Run	

Opportunities for Reading	BBC Bitesize revision for:
	
	   o [Presenting information](#)
	   o [General ESafety](#)
	   o [Image editing](#)
		BBC Bitesize revision for:
		
		   o [Hardware](#)
		   o [Software](#)
		   o [Multimedia](#)
		   o [Programming](#)
			BBC Bitesize revision for:
			
			   o [Webpages](#)
			   o [Spreadsheets](#)
			   o [Databases](#)

Developing Cultural Capital	An ability to use the Microsoft Office suite which is used cross curricular and in many office jobs around the world. An appreciation that the internet can be a dangerous place so they can stay out of danger. An understanding of how to communicate via email. An understanding of image manipulation and its real world advantages and disadvantages.	An understanding of hardware and software to provide foundations for potential computer scientists at KS4. Development of programming skills which could then lead to a highly paid role in the future.	An understanding of how businesses use technology. An ability to use the Microsoft Office suite which is used cross curricular and in many office jobs around the world. Development of business branding and website development that could lead to potential university courses and entrepreneurs.

Cross Curricular Links (Authentic Connections)	Cross-curricular Office skills which will be used in most subjects. An understanding of how to plan a graphic and use Photoshop for the IT BTEC course, this is also used in Art and Graphics.	Coding skills for the Computer Science KS4 option. Computer knowledge for the optional Computer Science course at KS4.	A basic understanding of expenditure and spreadsheets for Business Studies, with links to Maths.

Key Assessment	Baseline test.
	
	Teacher assessment on the ESafety project.
	
	ICT multiple choice test including;
	   o ESafety.
	   o Microsoft Word skills.
	   o Adobe Photoshop Skills.
		Teacher assessment of hardware & software video.
		
		Multiple choice test of basic programming skills.
			Multiple choice test including:
			   o Project planning
			   o Spreadsheets
			   o Database
			
			Teacher assessment on the website project.

Year 8	Term 1 (Business)	Term 2 (ICT)	Term 3 (Computer Science)

Unit(s) – As outlined in 39 week plans	o Standards and expectations
	o Baseline test
	o Common spreadsheet skills development using Microsoft Excel.
	o Common database skills development using Microsoft Access.
	o Project planning skills development.
	o Business project using Microsoft PowerPoint.
		o Adobe Photoshop common skills development.
		o Further pre-production skills development.
		o Digital project using Audacity.
		o <mark>ESafety topic</mark>
			o Computational thinking development including algorithms and flowcharts.
			o Binary:
			   o Number
			   o Addition
			   o Ascii
			o Basic textual based programming skills using Small Basic.

Key Retainable Knowledge & Skills	Department expectations, standards and procedures to be set. An understanding of how spreadsheets can be used to model monetary situations. An understanding of how databases can store vast amounts of data and be useful for businesses, using a query search. How IT is used by businesses to plan and promote their products and ideas.	A further developed understanding of different pre-production planning techniques. Common Adobe Photoshop skills development. The ability to be able to manipulate sounds and create a project that is exported as an MP3. <mark>ESafety.</mark>	An understanding of common computing terminology including hardware and software. An understanding of computational thinking through basic algorithms and flowcharts. An understanding of binary and how it can represent letters, completed addition tasks and convert to Ascii. An understanding of textual based programming language and how it can be used for different purposes.
Key Technical Vocabulary	*Expectations, standards and procedures.* o Network o Acceptable Use Agreement o Outlook o Email o CC o BCC o Subject o One drive	*Adobe Photoshop* o Mind map o Visualisation diagram o Mood board o Layers o Image editing o Manipulate o Enhance o Improve	*Computational thinking* o Bit, nibble, byte, kilobyte, megabyte, gigabyte, terabyte, petabyte. o Binary o Decimal o Denary o Ascii o Algorithm o Flow chart

- Folder
- Sub Folder

Microsoft Excel (Spreadsheets)
- Finances
- Spreadsheet
- Cell
- Row
- Column
- Record
- Formula
- Function
- Profit
- Borders
- Formatting

Microsoft Access (Database)
- Record
- Field
- Search
- Data Types
- Primary key
- Query
- Foreign key
- Relationship
- Data redundancy

Business project
- Research (primary and secondary)
- Mind map
- Open and closed questions
- Questionnaire
- Mood board
- House style
- Fit for purpose
- Logo

- Export

Pre-Production techniques.
- Mind Map
- Mood board
- Evaluation
- Fit for purpose
- Suitability
- Planning

Audacity
- Sample rate
- Bit depth
- Bit rate
- Script
- Audacity
- Time shift
- Trim
- Fade
- Copywrite free
- Export
- Compression
- MP3, AVI

ESafety

- Process
- Decision
- Labels

Programming
- Small Basic
- Commands
- Window
- Screenshot
- Variable
- String
- Sequence
- Selection
- Iteration
- Foreground
- Background

	o Visualisation diagram o Copyright o Intellectual property		
Opportunities for Reading	BBC Bitesize revision on: Spreadsheets Databases How technology has changed communication and collaboration Technology through time	BBC Bitesize revision on: Image manipulation Digital audio Copyright	BBC Bitesize revision on: Computational thinking Algorithms Programming
Developing Cultural Capital	A large focus of this term is looking at how businesses use IT, they will gain an understanding of spreadsheet and database software that is used on a daily basis over the world. An appreciation of how businesses use IT.	Students will also revisit ESafety, having a refresher on the dangers brought about through partaking in digital connectivity. A greater appreciation of digital sounds, how they are made, exported and saved in a binary form.	An understanding of a simple text-based programming language. A technical understanding of how computers work to enhance their understanding of devices used on a daily basis.
Cross Curricular Links (Authentic Connections)	Students gain an understanding of how businesses use IT on a regular basis. Spreadsheet formulas and functions use for calculations, links to Maths. Similar tasks included as part of the KS4 Business Studies courses.	Script writing for digital audio project, links to Drama & English. An understanding of how to plan a graphic and use Photoshop for the IT BTEC course, this is also used in Art and Graphics.	All are required elements for the KS4 Computer Science course. Development of programming skills which could then lead to a highly paid role in the future.
Key Assessment	Baseline test. Multiple choice test including; o Microsoft Excel spreadsheet skills. o Microsoft Access Database skills. o Project planning skills.	Teacher assessment on ESafety Photoshop project. Teacher assessment on Project planning for the digital audio project.	Computational thinking multiple choice test including: o Algorithms o Flowcharts o Binary o Binary addition o Ascii Programming multiple choice test including: o Small Basic commands.

Year 9	Term 1 (Computer Science)	Term 2 (Business)	Term 3 (ICT)
Unit(s) – As outlined in 39 week plans	- Standards and expectations - Baseline test - Computational thinking development including advanced algorithms, flowcharts and Boolean logic. - Data representation including Binary images & Sound. - Computer Networks - Basic textual based programming skills using Python.	- Advanced spreadsheet skills development using Microsoft Excel. - Advanced database skills development using Microsoft Access. - Market research, planning and presenting of a business project. - Exploring how businesses use technology.	- Adobe Photoshop advanced skills development. - Website production skills development using Serif Web Plus. ==ESafety==
Key Retainable Knowledge & Skills	Department expectations, standards and procedures to be set. Key Computer Science terminology. How text images and sounds are stored in binary. Basic understanding of how to enter, store and manipulate data in Python. Basic understanding of simple Python commands to help if they choose the Computer Science option at KS4.	How IT is used by businesses to plan and promote their products and ideas, with a focus on spreadsheets and databases. An understanding of how spreadsheets can be used by businesses to work out profit and loss. An understanding of how databases can store vast amounts of data and be useful for businesses, using a query search, reports and forms.	An advanced and independent understanding of different pre-production planning techniques. Advanced Adobe Photoshop skills development. An understanding of how to use Serif Web Plus to create a fully linked website that is fit for purpose.
Key Technical Vocabulary	*Expectations, standards and procedures.* - Network - Acceptable Use Agreement - Outlook - Email - CC - BCC - Subject	*Microsoft Excel (Spreadsheets)* - Finances - Profit - Loss - Income - Expenditure - Revenue - Spreadsheet	*Pre-Production techniques.* - Mind Map - Mood board - Evaluation - Fit for purpose - Suitability - Planning - House style

- One drive
- Folder
- Sub Folder

Computational thinking
- Bit, nibble, byte, kilobyte, megabyte, gigabyte, terabyte, petabyte.
- Binary
- Decimal
- Denary
- Ascii
- Algorithm
- Flow chart
- Process
- Decision
- Labels
- Abstraction
- Decomposition
- Algorithms
- Pattern recognition
- Pseudo code
- Logic gate
- Truth table

Key Boolean terms:
- =
- >
- < >=
- <=
- <>
- AND
- OR
- NOT

- Cell
- Row
- Column
- Record
- Formula
- Function
- Profit
- Borders
- Conditional Formatting
- Unique cell referencing

Microsoft Access (Database)
- Record
- Field
- Search
- Data Types
- Primary key
- Query
- Foreign key
- Relationship
- Data redundancy
- Relational database
- Report
- Form

Business project
- Research (primary and secondary)
- Mind map
- Open and closed questions
- Questionnaire
- Mood board
- House style
- Fit for purpose
- Logo
- Visualisation diagram

Adobe Photoshop
- Mind map
- Visualisation diagram
- Mood board
- Layers
- Image editing
- Manipulate
- Enhance
- Improve
- Export

Serif Web Plus
- Source table
- Features
- Navigation
- Index
- Hyperlink
- House style
- Buttons
- Assets

ESafety

	Programming
	
	   o Variable
	   o Print
	   o Input
	   o Random
	   o If
	   o Elif
	   o Else
	
	Networks
	
	   o Network
	   o 5G
	   o Connectivity
	   o Wifi
	   o Bluetooth
	   o LAN
	   o WAN
	   o Star
	   o Bus
	   o Ring
		o Copyright
		   o Intellectual property	

Opportunities for Reading	BBC Bitesize revision on:
	Representing text, images and sound
	Boolean logic
	Logical reasoning
		BBC Bitesize revision on:
		Spreadsheet
		Databases
		Python worksheets are available for further reading and practice.
			BBC Bitesize revision on:
			  • Magazines
			  • Websites

Developing Cultural Capital	A greater technical understanding of how computers work to enhance their knowledge of devices used on a daily basis. A better understanding of mobile phones, home networks and connectivity.	A wider appreciation of software that is used within the business environment. A large focus of this term is looking at how businesses use IT, they will gain an understanding of spreadsheet and database	Gaining an understanding of thoughts and techniques utilised when producing print media and website that they may encounter on a daily basis.

	An introduction to industry standard programming software.	software that is used on a daily basis over the world.	Students will also revisit ESafety, having a refresher on the dangers brought about through partaking in digital connectivity.
Cross Curricular Links (Authentic Connections)	Calculating download times and binary, links with Maths. All skills and knowledge are required elements for the KS4 Computer Science course.	Similar tasks are completed in the Business Studies courses and KS4.	An understanding of how to plan a graphic and use Photoshop for the IT BTEC course, this is also used in Art and Graphics.
Key Assessment	Multiple choice binary test, including: o Algorithms o Flowcharts o Binary o Binary addition o Ascii o Binary images & sound. Teacher assessment of Python programming skills.	Multiple choice test, including: o Spreadsheets o Databases o Market research	Teacher assessment of Website project. Multiple choice test, including: o Serif web plus skills o ESafety.