



Overall Curriculum Goal & Intent				YEAR 7			Key prior knowledge and skills
Our intent is to help Pupils study aspects of staying safe online to raise awareness and preparation for social media. Pupils are taught how to use technology safely and respectfully, keeping personal information private Pupils are challenged to understand the basic principles of hardware and software components to make up a computer system. Introduced to a variety of software applications							Pupils arrive with a varied background of skills and knowledge of computing: Core skills of word processing, scratch programming and some awareness of spreadsheet usage is common. It is clear the enthusiasm when the pupils use the computer system and willingness to learn and experiment.
	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6	
Topic Focus	E Safety	Creating Spreadsheet systems	Understanding Computers	Programming using Scratch	Coding using Micro bits and Flowol	HTML and Website development	
Summary of key knowledge & skills	The intent of this unit is to ensure that all pupils are aware of the positives and potential dangers of using digital technology for communication and how to deal with potential scenarios.	The intent is for all pupils to acquire basic formatting, formula and function knowledge using Microsoft Excel. Sum, Max, Min Average, conditional formatting and the creation of graphs are skills we want the pupils to have and then to be transferrable to other subjects that require data to be analysed.	The intent is for pupils to gain an understanding of what makes up a computer system and how it operates.	To develop confidence and creativity in coding.	The intent is to develop the programming concepts learnt earlier in the year into real life simulations and hardware outputs. The pupils are able to look at automated sensors and how they help us in society a. leisure and the work place. The pupils learn skills of computational thinking solving the problems set and making them efficient with the use of subroutines and procedures.	The intent is to highlight career opportunities in web development looking at basic HTML coding language, designing and creating webpages. This uses coding and graphical design skills not 'tested in other topics in year 7.	
What do you want students to know and learn?	Aspects of e safety – cyberbullying, social media, online grooming digital footprint What to do if the pupil is feeling harmed and targeted.		This looks into the hardware and software that make up a computer system. Input, output and storage devices are identified. Pupils are taught what is binary and how it used, learning how to convert binary to denary.	Pupils have previous knowledge of the basics of coding with this software. Terminology is developed using conditional loops and variables - with the end product being a two player multi-level game designed and created by the student.			
What are the opportunities for repetition and over-learning?	Why passwords are important To Recognise acceptable/unacceptable behaviour; identify a range of ways to report		Binary addition links with maths SoW identifying base 2 and base 10 calculations.				



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	concerns about content and contact.”					
Main common assessments	Assessment is through a Presentation created by the pupils for year6 /7 pupils about staying safe online.	Assessment is through an onscreen practical tasks pitched at different levels of challenge both formula and functions	Assessment is done through an online quiz using Microsoft Forms sent via a web link	The product is tested by other pupils against set success criteria.	Assessed through outcomes of the automated greenhouse scenario task. The use of efficient subroutines and the written explanations of how automated devices have help the individuals and society	Peer assessment based on success criteria set.
Extended writing tasks (at least two per long term)	Written advice in response to a child needing support.				A written report of the design, development and evaluation of the automated simulation.	
Examples of opportunities for challenge	Opportunities to develop sources of	A final task set if for the pupils to solve a task using any formulas,	Systems created by the students can be as complex as desired via	Opportunities to develop the pupils own success criteria and	Pupils using Flowol4 can link the software to	Pupils can embed other plug in features as they see fit.



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	knowledge via websites, and text. Chance to reflect on own practice of online safety	functions and layout as they see fit to meet the clients brief.	cross worksheet workbooks	programming techniques	a hardware platform of VEX-IQ Robots		
Links to numeracy, literacy and other subjects	A variety of key words are developed, and in writing responses to target audiences literacy skills are developed.	Modelling of scenarios using <i>what ifs</i> link to skills taught in numeracy	Base 10 (denary) & Base 2 (binary) are developed linking to mathematics content. Addition, subtraction and conversion.		Mathematical angles and lengths are discussed as well as flowchart symbols e.g. parallelograms, rectangles and diamond shapes		
Enrichment, clubs, trips and other extra-curricular activities	Lunchtime club (used for both intervention/extension) and coding clubs. Warhammer club.	Lunchtime club (used for both intervention/extension) and coding clubs. Warhammer club.	Lunchtime club (used for both intervention/extension) and coding clubs. Warhammer club.	Lunchtime club (used for both intervention/extension) and coding clubs. Warhammer club.	Lunchtime club (used for both intervention/extension) and coding clubs. Warhammer club.	Lunchtime club (used for both intervention/extension) and coding clubs. Warhammer club.	
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At the beginning all topics the pupils look at the skills required for the task and identify jobs/careers within this area. Job titles, duties and salaries are researched to act as a motivational boost.				Teaching online safety in school links with PSHE department, where both departments have analysed the DoE documents June2019 and are working in collaborations of such topics			
How can parents support learning?				Other comments			
Encourage pupils to attend all lessons. Log on to our VLE portal to view the lesson plans, worksheets and homework's if pupils are absent or need reminding of the content. Pupils could use touch typing online tutorials to speed up. Keyboard skills. Attend lunchtime clubs if needing support or just time on the PC's Tuesday – Thursday. Please encourage your child to be open with all their social media usage and If possible remove devices from their bedrooms at a sensible time in the evening.							



YEAR 8

Overall Curriculum Goal & Intent

Our intent in year 8 is to develop computational thinking; solving a variety of scenarios through developing systems in programming, animation, spreadsheets and Networks. The aim is for pupils to become digitally literate and develop skills suitable for the future workplace and as active participants in a digital world.

Key prior knowledge and skills

Pupils should have an understanding of:

- how to stay safe on the internet and offer advice to others,
- a high-level programming block language
- Basic Spreadsheet formulas and functions
- Presentation PowerPoints skills appropriate for audience

	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Digital topics
Topic Focus	Computer Cyber Crime and E Safety	PC Networks	Introduction To Python	Spreadsheet development	HTML, CSS	Graphics and
Summary of key knowledge & skills What do you want students to know and learn? What are the opportunities for repetition and over-learning?	<p>Pupils are made aware of the potential consequences of sharing information on line that could not be true.</p> <p>The pupils will be able to identify Phishing, hacking, and the different types and impact of viruses.</p> <p>How to identify secure websites and the risks</p> <p>The rights children have with regard to their data including GDPR. Repetition of computer legislation is constantly addressed through most units ie Copyright Act, GDPR Computer misuse.</p>	<p>Pupils are taught how the internet is connected, methods of connectivity, LAN network topology, client servers and encryption.</p>	<p>Pupils are taught their second programming language looking at strings and variables, data types, Selection, While loops and algorithms in order to solve a variety of computational problems.</p>	<p>Skills are developed using basic formulas and functions such as absolute cell referencing, conditional formatting, sum product and vlookup to solve and model scenarios.</p> <p>Analysis of the data is then done through creation of graphs and pivot tables.</p>	<p>Pupils are given the skills to write out pseudocode and the use of mathematical symbols.</p> <p>Social networking consequences and sexting are discussed</p>	<p>Skills are given to solve a promotional brief using Adobe Flash animation to be uploaded to the school website.</p>

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Main common assessments	Summative assessment is through an online end of topic test	Summative assessment is through an online end of topic test.	Summative assessment is through an online end of topic test. Formative assessment is done at the end of each challenge.	Summative assessment is through a practical set of scenarios.	Summative assessment is through an online end of topic test	Summative assessment is through an online end of topic test.
Extended writing tasks (at least two per long term)	Written advice in response to a child needing support.		Pupils have numerous challenge activities to develop their programming skills beyond the functions and procedures taught.			A written evaluation of the project deducing whether the success criteria has been met and what further improvements could be made if possible.
Examples of opportunities for challenge	Opportunities to develop sources of knowledge via websites, and text. Chance to reflect on own practice of online safety	Pupils are offered materials to identify the layers of a network and other topology forms.	Pupils are required to create either a millionaire quiz or story using validation techniques python and to make it as robust as possible.	The flexibility of layouts and presentational methods are offered to present information.		Due to the openness of the brief pupils can include any features necessary into their animation. E.g. audio video , complex interactions.
Links to numeracy, literacy and	A variety of key words are developed,		Numeracy using formulas, variables,	Mathematics – through data analysis	Literacy through report writing.	English/Art/Digital Photography in the

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other subjects			integers, Boolean and floats			creation of storyboards, timings, angles etc.
Enrichment, clubs, trips and other extra-curricular activities	Lunchtime club (used for both intervention/extension) and coding clubs. Warhammer club.	Lunchtime club (used for both intervention/extension) and coding clubs. Warhammer club.	Lunchtime club (used for both intervention/extension) and coding clubs. Warhammer club.	Lunchtime club (used for both intervention/extension) and coding clubs. Warhammer club.	Lunchtime club (used for both intervention/extension) and coding clubs. Warhammer club.	Lunchtime club (used for both intervention/extension) and coding clubs. Warhammer club.

Opportunities for links to careers

At the beginning all topics the pupils look at the skills required for the task and identify jobs/careers within this area. Job titles, duties and salaries are researched to act as a motivational boost.

Opportunities for links to SMSC, PSHE, ethos and values

Teaching online safety in school links with PSHE department, where both departments have analysed the DoF documents June2019 and are working in collaborations of such topics.

The animation unit pupils are encouraged to design a brief to match a school rule, anti-bullying or a promotion of an extra curricula club.

How can parents support learning?**Other comments**



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Topic 1

Topic 2

Topic 3

Topic 4

Topic 5

Digital topics

Encourage pupils to attend all lessons.

Log on to our VLE portal to view the lesson plans, worksheets and homework's if pupils are absent or need reminding of the content.

Pupils could use touch typing online tutorials to speed up. Keyboard skills.

Attend lunchtime clubs if needing support or just time on the PC's Tuesday – Thursday.

Please encourage your child to be open with all their social media usage and If possible remove devices from their bedrooms at a sensible time in the evening.

**YEAR 9****Overall Curriculum Goal & Intent**

Our intent in year 9 is to develop computational thinking; solving a variety of scenarios through developing systems in programming, project management, spreadsheets and Database systems. The aim develop skills and knowledge and offer an insight into options at GCSE and develop skills suitable for the future workplace and as active participants in a digital world.

Key prior knowledge and skills

Pupils should have base line skills in Microsoft Office, an awareness of computational thinking, how to use technology safely and respectfully and how to programme using two languages.

	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6
Topic Focus	E Safety	History of computing	Spreadsheet development	Programming Python	Advanced programming techniques Animation	
Summary of key knowledge & skills What do you want students to know and learn? What are the opportunities for repetition and over-learning?	<p>Pupils are asked to create an agony aunt style magazine spread in response to an issue of Sexting. Skills developed are:</p> <ul style="list-style-type: none"> • Desk top publishing • Develop their extended writing capabilities • legislation • organisations for support. <p>Pupils will draw on their previous e-safety knowledge from each previous year.</p>	<p>Pupils will look at Historical figures in computing and how they have shaped computing today.</p> <ul style="list-style-type: none"> • Alan Turin – Cryptography – Cipher codes • George Boole – modern symbolic logic and algebra logic • Charles Babbage- • Tim Berners Lee – Pupils will create web page and write about Tim using HTML 	<p>A variety of spreadsheets skills are developed to build a variety of systems as per clients brief.</p> <ul style="list-style-type: none"> • Pivot tables • Vlookup • Data Validation • Live charts <p>Pupils will do a variety of tasks repeating some of the functions and formulas when applicable.</p> <p>Pupils will draw on their previous spreadsheet knowledge of basic formulas and functions</p>	<p>The concepts of sequence, selection, iterations are developed using.</p> <ul style="list-style-type: none"> • Variables • Validation techniques • Arrays <p>As well as looking at creating shapes using python turtle.</p> <p>Pupils will use the basic functions taught in year 8, as a foundation.</p>	<p>Advanced programming challenges are given to develop techniques in</p> <ul style="list-style-type: none"> • Loops • Lists • Tables • Drawing • Defining and calling Procedures • Defining and calling Functions 	
Main common assessments	Summative submission via OneNote of their article	Summative assessment is through an online end of topic test, with	Summative assessment is through an online end of topic test	Summative assessment is through a practical set of scenarios.	Summative assessment is through an online end of topic test	

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		some formative assessment of their webpage.				
Extended writing tasks (at least two per long term)	A writing frame to help produce the article will be offered, with then the freedom to develop their literacy skills with extended writing				A solution to a given brief is produced allowing the pupils to Design, Develop, test and evaluate. The extended writing is through the design and evaluate stage.	
Examples of opportunities for challenge	Pupils have the opportunity to look at other aspect of staying safe on line and introduce other elements with in the article.	Pupils are invited to use any suitable aspects of HTML coding to develop their webpage on Tim Berners Lee	A variety of extra scenarios are at their disposal to develop further formulas and functions used in Microsoft Excel	www.snakify.com Through open ended programming tasks.	Numerous methods can be used with a variety of complex programming procedure and validation methods.	
Links to numeracy, literacy and other subjects	Linked to English with descriptive extended writing.	Numeracy – methods of sorting data. Science/ maths – logic gates	Mathematical functions and formulas whilst modelling scenarios.			

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Opportunities for links to SMSC, PSHE, ethos and values**How can parents support learning?**

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Other comments

