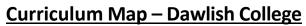
## <u>Curriculum Map – Dawlish College</u>



Subject: Core IT Year group: Year 8

	Autumn		Spring		Si	Summer	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
Declarative Knowledge – 'Know What'	Autumn 1  Online Safety & Cybercrime  Au1.1 Recap on systems in school  Au1.2 Recap on systems at	Autumn 2  Computer Components  Au2.1 What's in the box?  Au2.2 Specification	Spring 1  Networks  Sp1.1 Cables and the internet  Sp1.2 Bandwidth and Hardware	Spring 2  Spreadsheets II  Sp2.1 Recap of knowledge  Sp2.2 Fast formulae	Python 1  Su1.1 Back to blocks  Su1.2 Introduction to string coding	Binary/Logic Gates/Photoshop II  Su2.1 Binary systems  Su2.2 Logic gates	
	home  Au1.3 Kooth, NSPCC and Childline  Au1.4 Types of cybercrime  Au1.5 Cost of cybercrime to society  Au1.6 Ways to avoid cybercrime  Au1.7 Punishments for cybercrime	Au2.3 RAM and virtual memory  Au2.4 ROM and primary/secondary memory  Au2.5 Storage devices  Au2.6 Compatibility of components	Sp1.3 LAN and WAN  Sp1.4 Network topology  Sp1.5 Network development (internal and external)  Sp1.6 Networks quiz building	Sp2.3 Validation  Sp2.4 Filtering and graphical representation  Sp2.5 Conversion tables and absolute reference  Sp2.6 Nested IF	Su1.3 Developing variables in games  Su1.4 Using INPUTS effectively  Su.1.5 Using IF-ELSE in coding	Su2.3 Recap of basics  Su2.4 Image manipulation  Su2.5 Creating commercial products  Su2.6 Photoshop for manipulation	

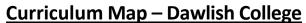




- Changes since Year 7 - Access from outside of school outside outsi			<u> </u>	in icaiain iviap De	aviisii conc <u>s</u> c		
<ul> <li>Where it happens</li> <li>Benefits and</li> <li>Limitations to</li> <li>Choosing the</li> <li>Compatibility of use</li> <li>Rowing back</li> </ul>	Sequential Knowledge –	<ul> <li>Where to find them</li> <li>Changes since Year 7</li> <li>Access from outside of school</li> <li>Au1.2 Recap on systems at home         <ul> <li>System settings for home</li> <li>Common issues from home</li> <li>Help and advice links</li> <li>Staying safe online at home</li> </ul> </li> <li>Au1.3 Kooth, NSPCC and Childline         <ul> <li>Overview of all three systems</li> <li>How to access</li> <li>Safety and security</li> <li>Confidentiality of service</li> </ul> </li> <li>Au1.4 Types of cybercrime         <ul> <li>Categories of cybercrime</li> <li>Severity to the individual</li> <li>Percentage of crimes per category</li> <li>Why it happens</li> </ul> </li> </ul>	What do you get	internet  What is the internet Cable types Costs Laying a cable Cable speeds  Sp1.2 Bandwidth and Hardware What is Bandwidth Variations by geography Hardware involved Linking systems together  Sp1.3 LAN and WAN What is LAN What is WAN What is WAN Which is most appropriate Advantages of each type Disadvantages of each type LAN and WAN in school settings  Sp1.4 Network topology What is a network Network sizes Linking sites together	knowledge  Essentials of Excel  How to save in the right format  Portability of saved files  The interface  Sp2.2 Fast formulae  Major maths operations  Combining operations (link to BODMAS)  Overcoming faulty formulae  Sp2.3 Validation  Why we validate  Validation tools  Multi-validation techniques  Limitations to validation  sp2.4 Filtering and graphical representation  Uses of filtering  Multi-filter techniques  Filtering for efficiency  Filtering to create insightful	Recap on block coding Simple block game generation Exporting the game  Su1.2 Introduction to string coding Discovering the use of string coding Types of string coding Basic language use Fundamentals of coding practice  Su1.3 Developing variables in games Coding variables in games Coding variables in programming language Creating multiple variables Variable to suit the audience and style Limitations of variables  Su1.4 Using INPUTS effectively What is an INPUT Where are INPUTS	<ul> <li>What is a binary system</li> <li>Counting in binary terms</li> <li>Converting binary to base-10</li> <li>Converting base-10 to binary</li> <li>ASCII and binary</li> <li>ASCII and binary</li> </ul> Su2.2 Logic gates <ul> <li>Exploring the base logic gates</li> <li>Use of logic gates in real life</li> <li>Using logic.ly to build simple systems</li> <li>Multiple logic gates and their outcomes</li> </ul> Su2.3 Recap of basics <ul> <li>Recap of cutting and pasting</li> <li>Finding suitable images and their formats</li> <li>Choosing the right sized canvas</li> <li>Zoom tools</li> <li>Transformation</li> </ul>

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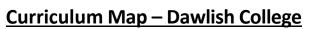
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images

	<u>Cu</u>	rriculum Iviap – Da	iwiish College		
<ul> <li>Vulnerability and targeting</li> <li>Au1.5 Cost of cybercrime to society <ul> <li>Monetary costs</li> <li>Mental costs</li> <li>Emotional costs</li> <li>Costs to business</li> </ul> </li> <li>Au1.6 Ways to avoid cybercrime <ul> <li>System blocks</li> <li>Observational techniques</li> <li>Training</li> <li>Ethical hacking and hackers</li> <li>Government responses</li> </ul> </li> <li>Au1.7 Punishments for cybercrime <ul> <li>Types of sentences</li> <li>Severity and depth of sentence</li> <li>Differences around the world</li> </ul> </li> </ul>	the shelf  Benefits and drawbacks of self-build  Cost comparisons  Availability  Shortages of components   Au2.5 Storage devices  Finding a device  Reliability of devices (cost comparisons)  Limitations of budget  Setting a budget  Effective compatability  Au2.6 Compatibility of components  Product families  Forced compatibility  Issues of compatibility on output  Branded vs generic systems	effective networks	suit  Sp2.5 Conversion tables and absolute reference  Conversion in practice  What can be converted  Linked data to adapt to changing conversion rates  Use of absolute reference in conversion  Relationship to relative reference  Sp2.6 Nested IF  Nested IF good practice  Creating conditions  Adjusting conditions  Nesting multiple IF's  Using VLOOKUP	with interfaces  • Why INPUTS go wrong  • Language choice for INPUTS  Su1.5 using IF-ELSE in coding  • What is an IF-ELSE  • Using IF_ELSE to create smooth choice coding  • Limitations of IF-ELSE  • Multi-layering of coding for sophistication	<ul> <li>Saving the image</li> <li>Su2.4 Image manipulation</li> <li>Basic tools for use</li> <li>Cloning for ease</li> <li>Erasing smoothly</li> <li>Blending images together</li> <li>Fine manipulation</li> <li>Su2.5 Creating commercial products</li> <li>Identifying suitable uses</li> <li>Choosing an idea</li> <li>Transferring the idea onto a storyboard</li> <li>Creating the image and refining</li> <li>Final edits</li> <li>Su2.6 Photoshop for manipulation</li> <li>Uses in social media</li> <li>Ethics of use</li> <li>Misinformation overload</li> <li>Identifying manipulation</li> <li>Photoshop vs Al</li> <li>The law and</li> </ul>





Developing Knowledge and Understanding of the application of topic to the real world.

Objectives focus on:

1. Demonstrate knowledge and understanding of concepts and theories

Key Questions	What issues do we face when logging in?	Where is the best place to buy a PC from?	What are the cables made from?	What are the key principles of Excel?	What other systems and apps use Python as coding?	What is Photoshop work area?
	Where do we go for help?  Are the support sites, such as Kooth, secure and safe?  Who carries out	How much do the costs of a ready built PC vary?  Why do manufacturers use jargon?  Why do we need	What is the cost of cabling?  Why do we need cables in 2024?  Do they get damaged?  How secure is a network?	What are the basic actions of Excel?  What advantages does using Excel bring a person or a business?	How important is string coding in software design?  Why string code when blocks is easier?	What are Smart Objects and how are they used?  How do you select the exact colour to match?  Describe what Photoshop is and why is
	cybercrime?  Why does cybercrime happen?  Who is the most common victim of	different types of memory?  Can you have too much memory?  What skills do you need	What kind of jobs are there in the industry?  What kind of skills are needed to be a network manager?	How does Excel help with schoolwork?  How does Excel help in presentations?  Can Excel replace	Is there a limit to the number of variables in a game?  Can you have multiple INPUITS on one string?	it used?  What are some important tools in Photoshop?  How do you crop an
	cybercrime?  Who polices cybercrime?  Will apps and tools slow down my device?	to build a PC?  What is the operating difference between low and high budget components?	Why do we need to? upgrade networks?	workers?  What are the limitations of Excel?  How can you export Excel successfully?	Why do programmes carry bugs?  Can you purely be a debugging programmer?	image in Photoshop?  What is the commercial value of Photoshop?  Can Photoshop distort reality; is this bad?



## <u>Curriculum Map – Dawlish College</u>

Assessment/ Measure of	In-class assessments	In-class assessments	In-class assessments	In-class assessments	In-class assessments	In-class assessments
success	Individual topic project completion (by outcome)	Successful completion of in-class projects	Submission of workable quiz	Completion of spreadsheet tasks set	Successful completion of activities set	Completion of activities and finalised images
Addressing gaps,	Address at source	Address at source	Address at source (time	Address at source (time	Address at source (time	Address at source
errors, misconceptions	(time allowing)	(time allowing)	allowing)	allowing)	allowing)	(time allowing)
	Use subsequent Do Now to revisit smaller gaps/ errors /misconceptions  Model through exemplars (historical or shared current student material (Impero)  Use of class experts and building resilience through trial and error	Use subsequent Do Now to revisit smaller gaps/ errors /misconceptions  Model through exemplars (historical or shared current student material (Impero)  Use of class experts and building resilience through trial and error	Use subsequent Do Now to revisit smaller gaps/errors /misconceptions  Model through exemplars (historical or shared current student material (Impero)  Use of class experts and building resilience through trial and error	Use subsequent Do Now to revisit smaller gaps/errors /misconceptions  Model through exemplars (historical or shared current student material (Impero)  Use of class experts and building resilience through trial and error	Use subsequent Do Now to revisit smaller gaps/ errors /misconceptions  Model through exemplars (historical or shared current student material (Impero)  Use of class experts and building resilience through trial and error	Use subsequent Do Now to revisit smaller gaps/ errors /misconceptions  Model through exemplars (historical or shared current student material (Impero)  Use of class experts and building resilience through trial and error
Link to prior learning	Internet safety  Use of basic Office suite products  Knowledge of crimes portrayed or reported in the media environment  Recap of safety online from Year 7	Relation to work done is Year 7 on computer basics  Use of effective PowerPoint building for effective presentations  Recall of knowledge on input and output devices	Previous learning from Year 7  Building on resilience practice from previous topics	Mathematics curriculum (data handling)  Researching techniques online  Following instructions in detail to achieve an outcome	Building on prior learning using programming logic  Ability to take instruction and recreate/enhance a piece of work  Continued perseverance and resilience techniques learned from prior topics	Mathematics curriculum (binary)  Some work in Art covers storyboards  Software manipulation skills stemming from the use of various interfaces used in previous years



## <u>Curriculum Map – Dawlish College</u>

Preparation to ater learning	Use of everyday tools in IT to aid workflow and comms between teacher and student/home  Safety and safe use of IT a skills and experiences develop  Identification of threats online and how to deal with them	Research techniques to find best choices and a variety of choices  Able to decipher complex information and transfer into more friendly user terminology  Budgeting skills	Effective choices for the best outcomes skills  Use of mathematical formulae for best outcome  Resilience to overcome problems effectively	Use in other subjects for presentations and projects  Data handing and manipulation  Decision making skills for best outcome  Resilience in activities to see through to conclusion.	Building on the simple to create more complex outcomes  Decision making processes  Introduction to string coding leads to Year 9 coding section  Resilience to overcome problems effectively	Research skills to discover best in class (in this case, hardware and software)  Decision making processes to choose best project topic and materials  Trial and error skills, fail and re-try  Developing fine motor skills
Literacy/ Numeracy/ SMSC/ Character	Numeracy: Calculations us SMSC: Spiritual development: State Enabling students to development: Studenvironmental and techn Social development: Development: Studenvironmental development	sed in Cybercrime/Compone cudents explore use of various elop empathy of opinions and dents evaluate, comment up ological issues arising from a elopment of team working sl udents look at the changes in	us IT tools to develop underst d allow them to take into con on and discuss various moral media decision. kills through collaborative wo n society and how they can af irms that have demonstrated	)/Photoshop/Coding/Stop Mot anding and are encouraged to sideration other people aims, v issues relating to IT practices and rk and research fect It and how IT affects them. various characteristics including	explore these concepts and cl values, principles, and beliefs nd procedures. Students cons	ider the political, social,