

Week 1 Autumn 1= two staff training days

	Autumn 1								Autumn 2							Spring 1						Spring 2						Summer 1					Summer 2							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
11	Computer systems: <ul style="list-style-type: none"> Systems architecture, CPU and embedded systems Memory, storage and data representation Computer networks, connections and protocols Network security, threats and preventing vulnerabilities Systems software, operating systems and utilities software Ethical, legal, cultural and environmental impacts of digital technology 															Computational thinking, algorithms and programming: <ul style="list-style-type: none"> Algorithms, searching/sorting and computational thinking Programming fundamentals, techniques and data types Producing robust programs, defensive design and testing Boolean logic, diagrams and truth tables Programming languages and IDEs 																								
10	Photoshop: <ul style="list-style-type: none"> Digital graphics Image editing Tools and techniques Cropping Rotating Brightness Contrast Colour adjustments 								R082 assignment: <ul style="list-style-type: none"> LO1: Purpose and properties of digital graphics – file formats, design and layout LO2: Plan a digital graphic – client requirements, target audience, work plan, visualisation diagram, assets, resources and legislation 							R082 assignment: <ul style="list-style-type: none"> LO3: Create a digital graphic – source and create assets, technical compatibility, save and export version control LO4: Review a digital graphic – refer to brief, areas for improvement and further development 						R081: <ul style="list-style-type: none"> Pre-Production Mood board Mind map Storyboard Visualisation diagram Script Purpose/use/content Suitability 						R081: <ul style="list-style-type: none"> File formats Hardware Software Target audience Client brief Primary source Secondary source Work plan 					R081: <ul style="list-style-type: none"> Legislation Health and Safety Risk assessments Copyright Data Protection Naming conventions Version control Extended writing 							
10	Algorithms: <ul style="list-style-type: none"> Computational thinking Designing, creating and refining Searching and sorting Programming fundamentals: <ul style="list-style-type: none"> Variables and constants Inputs and outputs Assignment Programming constructs Arithmetic and Boolean operators Data types Programming techniques 								Producing robust programs: <ul style="list-style-type: none"> Defensive design Testing Syntax/logic errors Boolean logic: <ul style="list-style-type: none"> Logic diagrams Truth tables Programming languages and IDEs: <ul style="list-style-type: none"> High/low level Translators Compilers/Interpreters Tools and facilities 							Systems architecture: <ul style="list-style-type: none"> CPU Von Neumann Embedded systems Memory and storage: <ul style="list-style-type: none"> Primary and secondary RAM and ROM Virtual memory Units Data storage Characters/Images/Sound Compression 						Computer networks, connections and protocols: <ul style="list-style-type: none"> Networks (LAN/WAN) Topologies Hardware The Internet Wired and wireless Protocols and layers Network Security: <ul style="list-style-type: none"> Threats/forms of attack Vulnerabilities Prevention methods 						Systems software: <ul style="list-style-type: none"> Operating systems Utility software Ethical, legal, cultural and environmental impact: <ul style="list-style-type: none"> Digital technology Impacts on wider society Privacy issues Relevant legislation 					Programming project: <ul style="list-style-type: none"> Python Design Write Test Refine 							
9	Photoshop: <ul style="list-style-type: none"> Digital graphics Image editing Image/canvas size Layout and drawing tools Adjustments, filters and effects Use of selections and layers Retouching Typograph 								Photoshop: <ul style="list-style-type: none"> Visual identity Technical skills Source assets Create assets Modify images Technical compatibility Store images Save and export graphics 							R094: <ul style="list-style-type: none"> Develop visual identity Purpose, component features, elements and design style Plan digital graphics for products Graphics design and conventions Properties of digital graphics and use of assets Bitmap/vector images Licenses and permissions Pre-production and planning documents 						R094 practice project: <ul style="list-style-type: none"> Task 1: Planning visual identity and digital graphic product <ul style="list-style-type: none"> - Design concept - Fitness for purpose - Planning documentation Task 2: Creating visual identity and digital graphic product <ul style="list-style-type: none"> - Technical skills, properties and formats - Tools, techniques, design concepts, layout conventions - Client requirements 																		

9	<p>Programming:</p> <ul style="list-style-type: none"> Algorithms Python Print statements User input Calculations Operands/operators Data types Variables 	<p>Programming:</p> <ul style="list-style-type: none"> Syntax/logic errors If statements While loops For loops Lists Arrays CSV files (read/write) Functions 	<p>Algorithms:</p> <ul style="list-style-type: none"> Computational thinking Designing, creating and refining Searching and sorting <p>Programming fundamentals:</p> <ul style="list-style-type: none"> Variables and constants Inputs and outputs Assignment Programming constructs Arithmetic and Boolean operators Data types Programming techniques 		<p>Producing robust programs:</p> <ul style="list-style-type: none"> Defensive design Testing Syntax/logic errors <p>Boolean logic:</p> <ul style="list-style-type: none"> Logic diagrams Truth tables <p>Programming languages and IDEs:</p> <ul style="list-style-type: none"> High/low level Translators Compilers/Interpreters Tools and facilities 	
8	<p>Fireworks:</p> <ul style="list-style-type: none"> Bitmap/vector images Assets Magic wand tool Transparency Layers Effects 	<p>Dreamweaver:</p> <ul style="list-style-type: none"> Websites Banner and navigation bar Layers Accessibility Consistency Assets 	<p>Python:</p> <ul style="list-style-type: none"> Print statements User input Calculations Operands/operators Variables Syntax/logic errors 	<p>Python:</p> <ul style="list-style-type: none"> If statements While loops For loops Lists CSV files (read/write) Functions 	<p>Data representation:</p> <ul style="list-style-type: none"> Units Binary Denary Hexadecimal ASCII Images 	<p>Pre-Production:</p> <ul style="list-style-type: none"> Scenario Work plan Mind map Mood board Visualisation diagram Assets
7	<p>Introduction to Computing:</p> <ul style="list-style-type: none"> Baseline Test Colmers Network E-Safety Computer Systems Word PowerPoint 	<p>Spreadsheets:</p> <ul style="list-style-type: none"> Excel Formulae Graphs Operands/operators Formatting Validation 	<p>Scratch:</p> <ul style="list-style-type: none"> Sprite Stage Algorithms Scripts Movement Correcting errors 	<p>Scratch:</p> <ul style="list-style-type: none"> Broadcast Operands/operators Variables Selection Iteration Testing/Feedback 	<p>MicroBits:</p> <ul style="list-style-type: none"> Sprite User input If statements Radom generator Variables Coordinates 	<p>Flowol:</p> <ul style="list-style-type: none"> Control technology Flow charts Inputs Sub routines Variables Simulation