Colmers Curriculum Map 2020-2021

COLMERS SCHOOL & SIXTH FORM COLLEGE

Subject: Computing

Green: Core ICT (Years 7 and 8)

Blue: GCSE Computer Science (Years 9 and 10)

Yellow: Level 2 Creative iMedia (Years 9 and 11)

	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
11	**R085:** • Dreamweaver • Fireworks • Assets • Layers • House style • Accessibility • Consistency • Advanced features								**R085:** • Assignment brief • Research • Client requirements • Target audience • Plan final product • Create final product • Review final product • Feedback							**R092:** • Clickteam fusion • Tutorials • Assets • Frames • Active objects • Conditions • Scoring • Exporting game							**R092:** • Assignment brief • Research • Client requirements • Target audience • Plan final product • Create final product • Review final product • Feedback																
10	**Algorithms:** • Computational thinking • Abstraction • Decomposition • Algorithmic thinking • Searching algorithms • Sorting algorithms • Pseudocode • Flowcharts								**Programming Techniques:** • Variables and constants • Data types • Program structures • Operators • String manipulation • Arrays • SQL • Subroutines							**Computational Logic:** • Binary • Truth tables • Logic gates • Boolean operators • Arithmetic operators • Exponentiation • MOD • DIV							**Creating Programs:** • Defensive design • Maintainability • Testing • Syntax and logic errors • Test data • Programming languages • Translators • IDE							**Data Representation:** • Units • Numbers • Binary shifts • Check digits • Characters • Images • Sound • Compression						**Practical Programming Project:** • Python • Planning • Success criteria • Analysis • Design • Development • Testing • Evaluation					
9	**R081:** • Pre-Production • Mood board • Mind map • Storyboard • Visualisation diagram • Script • Purpose/use/content • Suitability								**R081:** • File formats • Hardware • Software • Target audience • Client requirements • Primary sources • Secondary sources • Work plan							**R081:** • Legislation • Health and Safety • Risk assessments • Copyright • Data Protection • Naming conventions • Version control • Extended writing							**R082:** • Digital graphics • Purpose • Audience • File formats • Image properties • Design and layout • Pre-Production • Work Plan							**R082:** • Assets • Legal restrictions • Resources • Fireworks • Magic wand tool • Transparency • Layers • File formats						**R082:** • Assignment brief • Research • Client requirements • Target audience • Plan final product • Create final product • Review final product • Feedback					
9	**Python:** • Programming • Algorithms • Print statements • User input • Calculations • Operands/operators • Data types • Variables								**Python:** • Syntax/logic errors • If statements • While loops • For loops • Lists • Arrays • CSV files (read/write) • Functions							**Programming Techniques:** • Variables and constants • Data types • Program structures • Operators • String manipulation • Arrays • SQL • Subroutines							**Algorithms:** • Abstraction • Decomposition • Pseudo code • Flow diagrams • Search algorithms • Sort algorithms • Languages • IDE							**Data representation:** • Units • Denary • Binary • Hexadecimal • Characters • Images/Sound • Compression • Logic gates/truth tables						**Producing robust programs:** • Syntax/logic errors • Defensive design • Validation • Contingencies • Authentication • Misuse • Maintainability • Testing					

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	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
8	**Fireworks:** • Bitmap/vector images • Assets and legislation • Magic wand tool • Transparency • Layers • Effects								**Dreamweaver:** • Websites • Banner and navigation bar • Layers • Accessibility • Consistency • Assets (images, videos)							**Python:** • Print statements • User input • Calculations • Operands/operators • Variables • Syntax/logic errors						**Python:** • If statements • While loops • For loops • Lists • CSV files (read/write) • Functions						**Data Representation:** • Binary • Denary • Hexadecimal • ASCII • Images • Logic						**Project:** • Scenario • Mind map • Mood board • Visualisation diagram • Hardware • Software					
7	**Introduction:** • Baseline Test • Colmers Network • E-Safety • Computer Systems • Word • PowerPoint								**Spreadsheets:** • Excel • Formulae • Graphs • Operands/operators • Formatting • Validation							**Scratch:** • Sprite • Stage • Algorithms • Scripts • Movement • Correcting errors						**Scratch:** • Broadcast • Operands/operators • Variables • Selection • Iteration • Testing/Feedback						**Flowol:** • Control technology • Flow charts • Algorithms • Sequencing • Branching • Loops						**Flowol:** • Inputs • Outputs • Sub routines • Variables • Simulation • Robotics					