Goldwyn Ashford - Computing Subject Statement and Long Term Plan



Computing – Statement of Intent

Purpose of study

A high-quality computing and ICT education equips pupils to use computational thinking and creativity to understand and change the world. Computing and ICT have deep links with mathematics, science, and design and technology. At Goldwyn, we strongly believe that all students need to have competence in the use of computers and common programmes in order to transition into further education and the workplace.

Our whole curriculum is shaped by our school vision which aims to enable all students, regardless of background, ability, additional needs, and to flourish to become the very best version of themselves they can possibly be. We teach the National Curriculum, supported by a clear skills and knowledge progression. This ensures that skills and knowledge are built on year by year and sequenced appropriately to maximise learning for all children.

To ensure a broad range of skills and understanding, Computing is taught across three main strands: digital literacy, computer science and information technology. As part of information technology, students learn to use and express themselves and develop their ideas through ICT for example writing and presenting as well as exploring art and design using multimedia.

Within digital literacy, students develop practical skills in the safe use of ICT and the ability to apply these skills to solving relevant, worthwhile problems for example understanding safe use of internet, networks and email.

In computer science we teach students to understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation. Also, to analyse problems to computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.

We also teach a progression of Computing vocabulary to support students in their understanding. At Goldwyn School, we give students access to a wide range of good quality resources and provide cross curricular opportunities for them to apply their Computing knowledge and skills. Online safety is taught as a unit at the start of each academic year and revisited regularly to ensure students are educated regarding current or new online threats.

The implementation of this curriculum ensures that when children leave Goldwyn School, they are competent and safe users of ICT with an understanding of how technology works. They will have developed skills to express themselves and be creative in using digital media and be

equipped to apply their skills in Computing to different challenges going forward. To reflect these skills and areas of competency, all students will undertake the Level 1 and 2 Functional Skills in ICT examination, awarded by Pearson Edexcel.

Edexcel level 1 and 2 Functional Skills ICT

The Edexcel Level 1 and Level 2 Functional Skills ICT qualifications are assessed by a single paper-based test at each level, which is completed at a computer. This is assessed as a Pass or Ungraded, if the occasion arises that this is the case, there will be an opportunity for the student to resit the examination, with a maximum number of attempts predetermined by the examination board.

Level 2 Functional Skills GCSE Equivalency

Functional Skills at Level 2 is equivalent to a GCSE grade 4 (C on old grading system). Functional Skills is a qualification which is widely accepted as a GCSE equivalent.

Computing Department: Long Term Plan

At Goldwyn School we believe that Computing and the use of ICT is central to the education of all children. We aim to give each pupil the opportunity to apply and develop their technological understanding and skills across a wide range of situations and tasks. Pupils are encouraged to develop a confident and safe approach to Computing and the use of ICT, with the understanding of the capabilities and flexibility of their resources.

With the knowledge that Computing and ICT will undoubtedly continue to form a major part in the children's life at home, in further education and places of work, we ensure the Computing and ICT experiences and abilities that the children are equipped with at Goldwyn, are effective and transferrable life skills.

Term	1	2	3	4	5	6
Year 7	Project	Project	Project	Project	Project	Exam prep/Exam
	Fusion Project of	Mixed up fairytales	My Journey to	Interactive information	Binary basics, team	Key Learning (KSU)
	combined Computing	Stop Motion	Students choose a	kiosk for the parts of	challenges, peer tasks,	-investigate the
	and ICT.		country or region to	the computer	spreadsheet model	working characteristics
	Safe computer and	Stage 3-5 (backfill 1	visit, find between 8		creation	and the functional and
	internet use webpage	and 2)	and 15 locations to	Stage 3-5 (backfill 1		chemical properties of
	using Notepadd++ and	undertake creative	visit, find images of	and 2) some may be	Stage 3-5 (backfill 1	ingredients with
	HTML coding	projects that involve	these, save these in a	able to work to stage	and 2)	developing detail.
		selecting, using, and	Word Document,	7.5	understand simple	-understand that
	Stage 3-5 (backfill 1	combining multiple	create a PowerPoint	understand the	Boolean logic [for	certain ingredients
	and 2)	applications, preferably	presentation with a	hardware and software	example, AND, OR and	form specific functions
	understand a range of	across a range of	map, plotting their	components that make	NOT] and some of its	and can explain these in
	ways to use technology	devices, to achieve	locations, then create a	up computer systems,	uses in circuits and	developing detail.
	safely, respectfully,	challenging goals,	Spreadsheet to plan	and how they	programming;	-adapt recipes
	responsibly and	including collecting and	their route and the	communicate with one	understand how	competently and
	securely, including	analysing data and	distances	another and with other	numbers can be	accurately using this
	protecting their online	meeting the needs of		systems	represented in binary,	knowledge.
	identity and privacy;	known users	Stage 3-5 (backfill 1		and be able to carry out	-understand that when

recognise inappropriate	AND	and 2)	Skills from Prior	simple operations on	food it cooked it
content, contact and	create, reuse, revise	design, use and	Learning	binary numbers [for	changes the properties
conduct, and know how	and repurpose digital	evaluate computational	Effective research	example, binary	of the food and can
to report concerns	artefacts for a given	abstractions that model	Effective research	addition, and	explain this in
to report concerns	audience, with	the state and behaviour	Links to Future	conversion between	developing detail
Skills for Future					
	attention to	of real-world problems	Learning	binary and decimal]	-understand and can
Learning	trustworthiness, design	and physical systems	Effective research, use		explain in developing
Saving, folder structure,	and usability	AND SOME OF	of Presentation	ci ili c	detail the different
staying safe,	CLIII C. D.	understand how	Software, audience	Skills from Prior	cooking methods and
learning about	Skills from Prior	instructions are stored	consideration, layout,	Learning	the effect that they
programming in	Learning	and executed within a	formatting all directly	Computational thinking	have on all foods and
preparation for	Saving, folder structure,	computer system;	linked to the	in HTML and Formulas	any nutritional
complex spreadsheets	safety with images	understand how data of	requirements of the		benefits/downfalls off
	(people in the	various types (including	Pearson FS Level 1 and	Links to Future	certain methods of
	background)	text, sounds and	2	Learning	cooking.
		pictures) can be		Computational thinking	-understand and can
	Links to Future	represented and		in preparation of	explain in developing
	Learning	manipulated digitally, in		formulas in Pearson FS	detail why sometimes
	Creative task to embed	the form of binary		Level 1 and 2	recipes don't work out.
	the importance of	digits			E.g. a cake that doesn't
	sequencing, saving				rise or a lumpy sauce.
	correctly, folder and file	Skills from Prior			
	structures	Learning			
		HTML and			
		programming, structure			
		of formulas, effective			
		research			
		Links to Future			
		Learning			
		Creative task to embed			
		the importance of			
		sequencing, saving			
		correctly, folder and file			
		structures.			
		Direct links to Pearson			

			FS Level 1 and 2 via			
			multiple programme			
			use to complete a task,			
			formulas (=sum(_:_),			
			=average(_:_),			
			=min(_:_), =max_:_)			
Year 8	Project	Project	Project	Project	Project	Project
	Fusion Project of					
	combined Computing	Stop Motion with	Pay Spreadsheet	Interactive information	Binary addition and	HTML from Notepad++
	and ICT.	multiple scenes, credits		kiosk for a chosen	subtraction, team	multiple pages with
	Safe computer and	and audio	Stage 6-10	topic, i.e. SS Breat	challenges, peer tasks,	Homepage and links
	internet use webpage		design, use and	Britain	spreadsheet model	and project
	using Notepadd++ and	Stage 6-10	evaluate computational		creation	
	HTML coding	undertake creative	abstractions that model	Stage 6-10		Stage 3-5 (backfill 1
		projects that involve	the state and behaviour	understand the	Stage 6-10	and 2)
	Stage 6-10	selecting, using, and	of real-world problems	hardware and software	understand simple	use 2 or more
	understand a range of	combining multiple	and physical systems	components that make	Boolean logic [for	programming
	ways to use technology	applications, preferably	AND SOME OF	up computer systems,	example, AND, OR and	languages, at least one
	safely, respectfully,	across a range of	understand how	and how they	NOT] and some of its	of which is textual, to
	responsibly and	devices, to achieve	instructions are stored	communicate with one	uses in circuits and	solve a variety of
	securely, including	challenging goals,	and executed within a	another and with other	programming;	computational
	protecting their online	including collecting and	computer system;	systems	understand how	problems; make
	identity and privacy;	analysing data and	understand how data of		numbers can be	appropriate use of data
	recognise inappropriate	meeting the needs of	various types (including	Skills from Prior	represented in binary,	structures [for example,
	content, contact and	known users	text, sounds and	Learning	and be able to carry out	lists, tables or arrays];
	conduct, and know how	AND	pictures) can be	Effective research	simple operations on	design and develop
	to report concerns	create, reuse, revise	represented and		binary numbers [for	modular programs that
	· '	and repurpose digital	manipulated digitally, in	Links to Future	example, binary	use procedures or
	Skills for Future	artefacts for a given	the form of binary	Learning	addition, and	functions
	Learning	audience, with	digits	Effective research, use	conversion between	
	Saving, folder structure,	attention to		of Presentation	binary and decimal]	Skills from Prior
	staying safe,	trustworthiness, design	Skills from Prior	Software, audience	,	Learning
	learning about	and usability	Learning	consideration, layout,		HTML from term 1 and
	programming in		HTML and	formatting all directly	Skills from Prior	general computational
	preparation for	Skills from Prior	programming, structure	linked to the	Learning	thinking
	complex spreadsheets	Learning	of formulas, effective	requirements of the	Computational thinking	
	complex spicadsfieets	Learning	or formulas, criccuve	requirements of the	computational trimking	

Saving, folder structure, safety with images (people in the background) Links to Future Learning Creative task to embed the importance of sequencing, saving correctly, folder and file structures	research Links to Future Learning Creative task to embed the importance of sequencing, saving correctly, folder and file structures. Direct links to Pearson FS Level 1 and 2 via multiple programme use to complete a task,	Pearson FS Level 1 and 2	in HTML and Formulas Links to Future Learning Computational thinking in preparation of formulas in Pearson FS Level 1 and 2	Links to Future Learning Computational thinking in preparation of formulas in Pearson FS Level 1 and 2
structures	multiple programme use to complete a task, formulas (=sum(_:_), =average(_:_), =min(_:_), =max_:_)			

Year 9	Project	Project	Project	Project	BOOK EXAMINATIONS	EXAMINATIONS
	Zoo Spreadsheet Functional Skills	Abandoned Zoo and choice of topic, from Window Cleaner, Lost	January 2018 Past Paper Level 2	January 2018 Past Paper Level 1	Project June 2012 Past Paper	Functional Skills Level 1 (Edexcel/NCFE) Core Skills
	Level 1/2	Animal or Outlet	REVISED JAN 2022 TO	Functional Skills	Level 2	MOCKS and
	(Edexcel/NCFE) Core	Expansion. Create Flyer	NOV 10 L1	Level 1/2		EXAMINATION for Level
	Skills	in Publisher		(Edexcel/NCFE) Core	Functional Skills	1
	Spreadsheets and Data		Functional Skills	Skills	Level 1/2	
	Links to Future	Functional Skills	Level 1/2	Spreadsheets	(Edexcel/NCFE) Core Skills	
	Links to Future Learning	Level 1/2 (Edexcel/NCFE) Core	(Edexcel/NCFE) Core Skills	Skills from Prior	Effective Internet	
	=sum	Skills	Presentations	Learning	Research and	
	=vlookup	Leaflets, Factsheets and	T resentations	Formatting and	Newsletters	
	=if	Brochures	Skills from Prior	formulas		
	=average		Learning		Skills from Prior	
	=min	Skills from Prior	Formatting	Links to Future	Learning	
	=max	Learning		Learning	Keywords and	
	Absolute Cell	Filenames, folder	Links to Future	Formatting and	evidencing, layout and	
	Referencing	structures, formatting	Learning	filenames	formatting	
	=click Formatting	Links to Future	Formatting and filenames		Links to Future	
	Filenames and folder	Links to Future Learning	menames		Learning	
	structures	Formatting and			Formatting for task 2	
	Stractares	filenames			and 3	
Year 10	Project	Project	Project	Project	Project	EXAMINATIONS
	-		·			
	Event Spreadsheet	Create Flyers in	May 2012 Past Paper	June 2013 Past Paper	November 2013 Past	Functional Skills
		Publisher, an	Level 2	Level 1	Paper Level 2	Level 1 (Edexcel/NCFE)
	Functional Skills	exploration of	DEL ((CED.) A N. COCC. TO			Core Skills
	Level 1 (Edexcel/NCFE) Core Skills	formatting features	REVISED JAN 2022 TO NOV 10 L1	Functional Skills	Functional Skills Level 1/2	MOCKS and EXAMINATION for Level
	Spreadsheets and Data	Functional Skills	NOV 10 L1	Level 1 (Edexcel/NCFE) Core Skills	(Edexcel/NCFE) Core	1
	Spicausifeets and Data	Level 1/2	Functional Skills	Spreadsheets	Skills	1
	Links to Future	(Edexcel/NCFE) Core	Level 1 (Edexcel/NCFE)	Spicausileets	Effective Internet	

	Learning	Skills	Core Skills	Skills from Prior	Research and	
	=sum	Leaflets, Factsheets and	Presentations	Learning	Newsletters	
	=vlookup	Brochures		Formatting and	a 6 a	
	=if		Skills from Prior	formulas	Skills from Prior	
	=average	Skills from Prior	Learning		Learning	
	=min	Learning	Formatting	Links to Future	Keywords and	
	=max	Filenames, folder		Learning	evidencing, layout and	
	Absolute Cell	structures, formatting	Links to Future	Formatting and	formatting	
	Referencing		Learning	filenames		
	=click	Links to Future	Formatting and		Links to Future	
	Formatting	Learning	filenames		Learning	
	Filenames and folder	Formatting and			Formatting for task 2	
	structures	filenames			and 3	
Year 11	PLAN EXAMINATION	BOOK EXAMINATIONS	EXAMINATIONS	RESITS/LEVEL 2	RESITS/LEVEL 2	RESITS/LEVEL 2
	DATES					,
	27.11.20	Project	Project	Project	Project	Study Leave
	Project	Troject	Troject	Troject	Troject	Study Leave
	Troject	June 2013 Past Paper	Jan 2018 Past Paper	June 2013 Past Paper	November 2013 Past	
	May 12 Past Paper	Level 2	Level 2	Level 2	Paper Level 2	
	Level 2	Level 2	Level 2	Level 2	l aper Level 2	
	Leverz	Functional Skills	Functional Skills	Functional Skills	Functional Skills	
	Functional Skills				Level 1/2	
		Level 1 (Edexcel/NCFE) Core Skills	Level 1 (Edexcel/NCFE) Core Skills	Level 1 (Edexcel/NCFE) Core Skills	*	
	Level 1 (Edexcel/NCFE)				(Edexcel/NCFE) Core	
	Core Skills	Spreadsheets	Presentations	Spreadsheets	Skills	
	Presentations	S S		S 6 5 .	Effective Internet	
		Skills from Prior	Skills from Prior	Skills from Prior	Research and	
	Skills from Prior	Learning	Learning	Learning	Newsletters	
	Learning	Formatting and	Formatting	Formatting and		
	Formatting	formulas		formulas	Skills from Prior	
			Links to Future		Learning	
	Links to Future	Links to Future	Learning	Links to Future	Keywords and	
	Learning	Learning	Formatting and	Learning	evidencing, layout and	
	Formatting and	Formatting and	filenames	Formatting and	formatting	
	filenames	filenames		filenames		
					Links to Future	
					Learning	

		Formatting for task 2	
		and 3	