COMPUTING Curriculum – What will the children actually learn?

Key Threshold Concepts (Substantive Knowledge)

When constructing our curriculum, we considered key threshold concepts or "the big ideas" which shape the ways pupils think within each subject. These threshold concepts, also known as "substantive knowledge," are explored in every year group which help pupils gradually increase their understanding of them. Over time this approach of revisiting concepts helps children to *know more and remember more.* In our Computing lessons children are taught the key threshold concepts (substantive knowledge) below:

i) Computer Science ii) Information Technology iii) Digital Literacy

The key threshold concepts for each class are set out in our three learning Milestones. Milestone 1 (Years 1 & 2), Milestone 2 (Years 3 & 4) and Milestone 3 (Year 5 & 6). These can be seen below alongside the topics that are to be taught in each class.

Topic Specific Milestones

In addition to the key threshold Milestones our curriculum sets out progression in the form of topic specific 'Milestones' for every topic taught. Each Milestone contains a range of descriptors which provide details of the skills, within each topic, to be covered and taught in class. KS1 children work to achieve the objectives set out in Milestone 1. Lower KS2 children work to achieve the objectives set out in Milestone 2 and upper Key Stage 2 children work to achieve the objectives set out in Milestone 3.

Vocabulary:

Research has shown that pupils with the most extensive vocabulary have:

- better reasoning, inference and pragmatic skills
- academic success and employment
- better mental health in adulthood.

Each milestone introduces a range of age appropriate computing vocabulary that the teacher will teach and revisit throughout the two-year period that the children are working on these milestone targets. These are set out below. In addition to this, each topic assessment tracker (see below) contains vocabulary that is specific to the individual topic.

Key Threshold Milestone 1 (Year 1 & 2)

– Assessment Tracker (print one copy of this page and tick/date the Milestone 1 targets when they are covered in class.

Class name: **Year groups:** **Academic year:**

Computer Science	Information Technology	Digital Literacy
I can explain that an algorithm is a set of instructions (Units 1.4, 1.5)	I can sort sound, pictures and text. (Unit 1.2)	I can say what technology is. (Unit 1.9)
I know that a computer program turns an algorithm into code that the computer can understand. (1.4, 1.7)	I can add sound, pictures and text to a program such as 2Create a Story. (1.6)	I can say what examples of technology are in school. (1.9)
I can work out what is wrong when the steps are out of order in instructions (1.4, 1.5)	I can change content on a file such as text, sound and images. (1.3, 1.6, 1.7, 1.8)	I can say what examples of technology are at home. (1.9)
I can try and fix my code if it isn't working properly (1.7)	I can name my work. (1.2, 1.3, 1.6, 1.7, 1.8)	I know that a chair uses old technology and a smart phone uses new technology. (1.9)
I can make good guesses of what is going to happen in a program (1.5, 1.7)	I can save my work. (1.2, 1.3, 1.6, 1.7, 1.8)	I can keep my login information safe. (1.1 and most units)
I can explain an algorithm is a set of instructions to complete a task. (2.1)	I can find my work. (1.2, 1.3, 1.6, 1.7, 1.8)	I can save my work in a safe place such as 'My Work' folder. (1.1 and most units)
I know I need to carefully plan my algorithm so it will work when I make it into code. (2.1)	I can organise data – for example, using a database such as 2Investigate. (2.3, 2.4)	I can find information I need using a search engine. (2.5)
I can design a simple program using 2Code that achieves a purpose. (2.1)	I can find data using specific searches – for example, using 2Investigate. (2.4, 2.5)	I know the consequences of not searching online safely. (2.2, 2.5)
I can find and correct some errors in my program. (2.1)	I can use several programs to organise information – for example, using binary trees such as 2Question or spreadsheets such as 2Calculate. (2.4, 2.8)	I can share work and communicate electronically – for example using 2Email or the display boards. (2.2 and others)
I can say what will happen in a Program. (2.1)	I can edit digital data such as data in music composition software like 2Sequence. (2.7 and most units)	I can report unkind behaviour and things that upset me online, to a trusted adult. (2.2)
I can spot something in a program that has an action or effect (does something). (2.1)	I can name, save and find my work. (2.3, 2.4, 2.6, 2.7, 2.8 & most units)	I can see where technology is used at school such as in the office or canteen. (2.2)
	I can include photos, text and sound in my creations. (2.8, 2.6)	I understand that my creations such as programs in 2Code, need similar skills to the adult world. e.g., The program used for collecting money for school trips. (2.1)

TOPICS TAUGHT in KS1:

In addition to the specific skills that the children will keep revisiting through the key concepts or substantive knowledge there will be specific learning related to individual topics. At Stapleford Primary School children are taught in mixed age classes e.g. Years 1 & 2 together etc. As a result, we have a two-year topic plan to prevent the children repeating subject matter. More detail is shown below as to what will be taught within each topic.

KS1 (Class 3 – Years 1 & 2) Rolling Programme

Subject	**Year A** (2022-2023), (2024-2025) (2026-2027) etc.			**Year B** (2021-2022), (2023-2024), (2025-2026) etc.		
	Autumn Term	Spring Term	Summer Term	Autumn Term	Spring Term	Summer Term
Computing (see Purple Mash scheme of work)	Unit 1.1. Online Safety & Exploring Purple Mash Unit 2.5 Effective Searching Unit 1.4 Lego Builders Unit 1.9 Technology outside school	Unit 1.2 Grouping & Sorting Unit 2.6 Creating Pictures Unit 1.8 Spreadsheets	Unit 1.7 Coding Unit 2.1 Coding	Unit 1.1. Online Safety & Exploring Purple Mash Unit 1.5 Maze Explorers Unit 2.4 Questioning	Unit 2.2 Online Safety Unit 1.6 Animated Story Books Unit 2.7 Making Music	Unit 2.3 Spreadsheets Unit 1.3 Pictograms Unit 2.8 Presenting Ideas

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

The Assessment Tracker documents below outline what children will learn within each topic

Computing: KS1 – Assessment tracker: Year 1 & 2 – YEAR A												
Topic: Unit 1.1. Online Safety & Exploring Purple Mash												
Pupils:												
Targets Children can/know/explain/understand:												
Know how to log in safely.												
how to find saved work in the Online Work area and find teacher comments.												
how to search Purple Mash to find resources.												
become familiar with the icons and types of resources available in the												
start to add pictures and text to work.												
explore the Tools and Games section of Purple Mash.												
learn how to open, save and print.												
understand the importance of logging out.												

Topic specific vocabulary:

alert	avatar	button	device	file name	private
icon	log in	log out	menu	notification	password

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram

question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 2.5 Effective searching												
Pupils:												
Targets Children can/know/explain/understand:												
To understand the terminology associated with searching.												
To gain a better understanding of searching on the Internet.												
To create a leaflet to help someone search for information on the Internet.												
To search safely on the Internet												

Topic specific vocabulary:

digital footprint	domain	Internet	network	search engine
web page	world wide web	web site	web address	search

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	Internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 1.4 Lego builders												
Pupils:												
Targets Children can/know/explain/understand:												
To compare the effects of adhering strictly to instructions to completing tasks without complete instructions.												
To follow and create simple instructions on the computer.												
To consider how the order of instructions affect the result.												

Topic specific vocabulary:

algorithm	code	computer	debugging	instructions	program

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 1.9 Technology outside school												
Pupils:												
Targets Children can/know/explain/understand:												
To walk around the local community and find examples of where technology is used.												
To record examples of technology outside school.												

Topic specific vocabulary:

computer	technology

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 1.2 Grouping and sorting												
Pupils:												
Targets Children can/know/explain/understand:												
To sort items using a range of criteria.												
To sort items on the computer using the 'Grouping' activities in Purple Mash.												

Topic specific vocabulary:

criteria	groups	sort

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 2.6 Creating pictures												
Pupils:												
Targets Children can/know/explain/understand:												
To learn the functions of the 2Paint a Picture tool.												
To learn about and recreate the Impressionist style of art (Monet, Degas, Renoir).												
To recreate Pointillist art and look at the work of pointillist artists such as Seurat.												
To learn about the work of Piet Mondrian and recreate the style using the lines template.												
To learn about the work of William Morris and recreate the style using the patterns template.												
To explore surrealism and eCollage												

Topic specific vocabulary:

art	pallette	style	fill	pointillism	impressionism	surrealism

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 1.8 Spreadsheets												
Pupils:												
Targets Children can/know/explain/understand:												
To know what a spreadsheet program looks like.												
To locate 2Calculate in Purple Mash.												
To enter data into spreadsheet cells.												
To use 2Calculate image tools to add clipart to cells.												
To use 2Calculate control tools: lock, move cell, speak and count.												

Topic specific vocabulary:

button	calculations	cell	clip-art	column	count tool	speak tool	value
data	delete	image	lock-cell	move-cell	row	spreadsheet	computer

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 1.7 Coding												
Pupils:												
Targets Children can/know/explain/understand:												
To understand what instructions are and predict what might happen when they are followed.												
To use code to make a computer program.												
To understand what object and actions are.												
To understand what an event is.												
To use an event to control an object.												
To begin to understand how code executes when a program is run.												
To understand what backgrounds and objects are.												
To plan and make a computer program												

Topic specific vocabulary:

action	code	event	algorithm	command
background	debug	debugging	input	execute

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram

question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 2.1 Coding												
Pupils:												
Targets Children can/know/explain/understand:												
To understand what an algorithm is.												
To create a computer program using an algorithm.												
To create a program using a given design.												
To understand the collision detection event.												
To understand that algorithms follow a sequence.												
To design an algorithm that follows a timed sequence.												
To understand that different objects have different properties.												
To understand what different events do in code.												
To understand the function of buttons in a program.												
To understand and debug simple programs.												

Topic specific vocabulary:

action	algorithm	background	bug	button	click events
collsion detection	command	debug	debugging	event	execute

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge

route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2 – YEAR B												
Topic: Unit 1.1. Online Safety & Exploring Purple Mash												
Pupils:												
Targets Children can/know/explain/understand:												
log in safely.												
how to find saved work in the Online Work area and find teacher comments.												
how to search Purple Mash to find resources.												
become familiar with the icons and types of resources available in the												
start to add pictures and text to work.												
explore the Tools and Games section of Purple Mash.												
learn how to open, save and print.												
understand the importance of logging out.												

Topic specific vocabulary:

alert	avatar	button	device	file name	private
icon	log in	log out	menu	notification	password

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram

question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 1.5 Maze explorers												
Pupils:												
Targets Children can/know/explain/understand:												
To understand the functionality of the direction keys.												
To understand how to create and debug a set of instructions (algorithm).												
To use the additional direction keys as part of an algorithm.												
To understand how to change and extend the algorithm list.												
To create a longer algorithm for an activity.												
To set challenges for peers.												
To access peer challenges set by the teacher as 2Dos.												

Topic specific vocabulary:

algorithm	challenge	command	direction	instruction
route	undo	unit	maze	left and right

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 2.4 Questioning												
Pupils:												
Targets Children can/know/explain/understand:												
To learn about data handling tools that can give more information than pictograms.												
To use yes/no questions to separate information.												
To construct a binary tree to identify items.												
To use 2Question (a binary tree database) to answer questions.												
To use a database to answer more complex search questions.												
To use the Search tool to find information.												

Topic specific vocabulary:

binary tree	data	database	field	pictogram
record	search	sort	question	information

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 2.2 Online safety												
Pupils:												
Targets Children can/know/explain/understand:												
To know how to refine searches using the Search tool.												
To use digital technology to share work on Purple Mash to communicate and connect with others locally.												
To have some knowledge and understanding about sharing more globally on the Internet.												
To introduce Email as a communication tool using 2Respond simulations.												
To understand how we should talk to others in an online situation.												
To open and send simple online communications in the form of email.												
To understand that information put online leaves a digital footprint or trail.												
To identify the steps that can be taken to keep personal data and hardware secure												

Topic specific vocabulary:

attachment	digital footprint	email	filter	personal information
secure	search	sharing	internet	private information

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram

question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 1.6 Animated stories												
Pupils:												
Targets Children can/know/explain/understand:												
To introduce e-books and the 2Create a Story tool.												
To add animation to a story.												
To add sound to a story, including voice recording and music the children have composed.												
To work on a more complex story, including adding backgrounds and copying and pasting pages.												
To share e-books on a class display board.												

Topic specific vocabulary:

animation	background	clip-art gallery	e-book	edit
sound	Sound effect	text	font	voice recording

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 2.7 Making music												
Pupils:												
Targets Children can/know/explain/understand:												
To make music digitally using 2Sequence.												
To explore, edit and combine sounds using 2Sequence.												
To edit and refine composed music.												
To think about how music can be used to express feelings and create tunes which depict feelings.												
To upload a sound from a bank of sounds into the Sounds section.												
To record and upload environmental sounds into Purple Mash.												
To use these sounds to create tunes in 2Sequence.												

Topic specific vocabulary:

beat	compose	note	tune	sound effect
speed	tempo	volume	soundtrack	bank of sounds

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing

animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 2.3 Spreadsheets												
Pupils:												
Targets Children can/know/explain/understand:												
To use 2Calculate image, lock, move cell, speak and count tools to make a counting machine.												
To learn how to copy and paste in 2Calculate.												
To use the totalling tools.												
To use a spreadsheet for money calculations.												
To use the 2Calculate equals tool to check calculations.												
To use 2Calculate to collect data and produce a graph.												

Topic specific vocabulary:

block graph	cell	column	copy	data	count tool	table
drag	equals	equals tool	label	row	speak tool	total

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 1.3 Pictograms												
Pupils:												
Targets Children can/know/explain/understand:												
To understand that data can be represented in picture format.												
To contribute to a class pictogram.												
To use a pictogram to record the results of an experiment.												

Topic specific vocabulary:

collect data	compare	data	pictogram	record results	title

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Computing: KS1 – Assessment tracker: Year 1 & 2												
Topic: Unit 2.8 Presenting ideas												
Pupils:												
Targets Children can/know/explain/understand:												
To explore how a story can be presented in different ways.												
To make a quiz about a story or class topic.												
To make a fact file on a non-fiction topic.												
To make a presentation to the class.												

Topic specific vocabulary:

e-book	Fact file	fiction	Non-fiction	Mind map	node	presentation	quiz

Milestone 1: Vocabulary (words to revisit throughout the two-years that the children study Milestone 1).

alert	avatar	button	device	file name	private	digital footprint	domain	internet
icon	log in	log out	menu	notification	password	algorithm	code	computer
network	search engine	web address	web page	world wide web	web site	debugging	intructions	program
technology	criteria	group	sort	cell	calculations	clip-art	column	count tool
data	delete	image	lock cell	move cell	row	speak tool	spreadsheet	value
art	fill	impressionism	palette	pointillism	style	surrealism	action	bug
collsion detection	command	background	execute	click events	event	imput	direction	challenge
route	undo	unit	left	right	binary tree	database	field	pictogram
question	search	attachment	filter	private information	digital footprint	personal information	secure	sharing
animation	e-book	sound	edit	sound effect	clip art gallery	font	text	beat
tune	speed	compose	note	soundtrack	tempo	volume	block graph	copy
drag	label	table	equals tool	equals	total	speak tool	collect data	compare
record results	title	e-book	mind map	presentation	fiction	node	fact file	non-fiction

Key Threshold Milestone 2 (Year 3 & 4)

– Assessment Tracker (print one copy of this page and tick/date the Milestone 2 targets when they are covered in class.

Class name: **Year groups:** **Academic year:**

Computer Science	Information Technology	Digital Literacy
I can make a real-life situation into an algorithm for a program. (3.1)	I can carry out searches to find digital content on a range of online systems, such as within Purple Mash or on an internet search engine. (Across units)	I can create a secure password. (3.2)
I can design an algorithm carefully, thinking about what I want it to do and how I can turn it into code. (3.1)	I can collect data and input it into software. (3.3, 3.6, 3.8)	I can explain the importance of having a secure password and not sharing it with others. (3.2, 3.5)
I can identify an error in my program and fix it. (3.1)	I can analyse data using features within software to help such as, formula in 2Calculate (spreadsheets). (3.3, 3.6, 3.8)	I can explain the negative consequences of not keeping passwords safe and secure. (3.2, 3.5)
I can experiment with timers in my programs. (3.1)	I can present data and information using different software such as 2Question (branching database) or 2Graph (graphing tool). (3.3, 3.6, 3.8,3.9)	I understand the importance of keeping safe online and behaving respectfully. (3.2)
I can identify the difference in using between the effect of a timer or repeat command in my code. (3.1)	I can consider what the most appropriate software to use when given a task by my teacher. (Across units)	I can use communication tools such as 2Email respectfully and use good etiquette. (3.2, 3.5)
I know that a variable stores information while a program is running (executing). (3.1)	I can create purposeful (appropriate) content and attach this to emails. (3.3, 3.5, 3.6, 3.7, 3.8, 3.9)	I can report unacceptable content and contact online in more than one way to a trusted adult. (3.2)
I can identify 'If' statements, repetition and variables. (3.1)	I understand the purpose of a search engine and the main features within it. (4.7)	I have a good understanding of the online safety rules we learn at school. (4.2 & across curriculum)
I can read programs with several steps and predict what it will do. (3.1)	I can look at information on a webpage and make predictions about the accuracy of information contained within it. (4.7)	I can demonstrate how to use different online technologies safely. (4.2 & across curriculum)
I can identify different ways that the internet can be used for communication. (3.5)	I can create and improve my solutions to a problem based on feedback. For example, create a program using 2Code. (4.1, 4.2)	I can demonstrate how to use a few different online services safely. (4.2 & across curriculum)
I can use email such as 2Email to respond to others appropriately and attach files. (3.5)	I can review solutions that others have created, using a checklist of criteria. (4.1, 4.2)	I know I have a right to privacy both on and offline. (4.2 & across curriculum)
I can turn a real-life situation to solve into an algorithm, using a design that shows how I can accomplish this in code. (4.1, 4.5)	I can work collaboratively to create content and solutions. (4.1, 4.3, 4.4,48)	I recognise that my wellbeing can be affected by how I use technology. (4.2 & across curriculum)
I can use repetition in my code. For example, using a loop that continues until a condition is met such as the correct answer being entered. (4.1)	I can share digital content using a variety of applications such as: 2Blog, 2Email and Display Boards. (Across units)	I can report with ease any concerns with content and contact online and know immediate strategies to keep safe. (4.2 & across curriculum)

I can use timers within my program designs more accurately to create repetition effects. For example, I can create a counting machine. (4.1)		
I can use selection (decision) in my programming. For example, using an 'if statement' for a question being asked and the program takes one of two paths. (4.1)		
I can use variables within my program and know how to change the value of variables. (4.1)		
I can use the user inputs and output features within my program, such as 'Print to screen'. (4.1)		
I can identify errors in my code by using different methods, such as steeping through lines of code and fixing them. (4.1)		
I can read programs that contain several steps and predict the outcomes with increasing accuracy. (4.1, 4.5)		
I recognise the main component parts of hardware which allow computers to join and form a network. (4.8)		
I understand that network and communication components can be found in many different devices which allow them to join the internet. (4.2, 4.7, 4.8)		

TOPICS TAUGHT in Lower KS2:

In addition to the specific skills that the children will keep revisiting through the key concepts or substantive knowledge there will be specific learning related to individual topics. At Stapleford Primary School children are taught in mixed age classes e.g. Years 3 & 4 together etc. As a result, we have a two-year topic plan to prevent the children repeating subject matter. More detail is shown below as to what will be taught within each topic.

Lower KS2 (Class 2 – Year 3 & 4) Rolling Programme

Subject	**Year A** (2022-2023), (2024-2025) (2026-2027) etc.			**Year B** (2021-2022), (2023-2024), (2025-2026) etc.		
	Autumn Term	Spring Term	Summer Term	Autumn Term	Spring Term	Summer Term
Computing (see Purple Mash scheme of work)	Unit 3.1 Coding Unit 3.2 Online safety Unit 3.3 Spreadsheets	Unit 3.4 Touch Typing Unit 3.5. Email	Unit 3.6 Branching Databases Unit 3.7 Simulations Unit 3.8 Graphing	Unit 4.1 Coding Unit 4.2 Online Safety	Unit 4.3 Spreadsheets Unit 4.4 Writing for different audiences	Unit 4.5 Logo Unit 4.6 Animation Unit 4.7 Effective Search Unit 4.8 Hardware Investigators

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

The Assessment Tracker documents below outline what children will learn within each topic

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 3.1 Coding												
Pupils:												
Targets Children can/know/explain/understand:												
Knows what a flowchart is and how flowcharts are used in computer programming.												
Knows how to use a flowchart to create a computer program.												
Knows that there are different types of timers used in coding environments such as 2Code.												
Knows which timer should be used for a given purpose.												
Know what a repeat command is and how to use the repeat command.												
Know how to create a range of programs using coding knowledge.												
Know how to run, test and debug their own programs.												
Know what nesting is and that this should be considered when debugging.												
Know how to change attributes/properties of any objects in a program they have made.												

Topic specific vocabulary:

collision detection event	alert	algorithm	background	bug	button	click event	code	command	debug	debugging	action

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious

border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 3.2 Online safety												
Pupils:												
Targets Children can/know/explain/understand:												
Knows what makes a safe password and how to keep it safe.												
Knows the main outcomes of not keeping passwords safe.												
Knows all the common ways the Internet enables people to effectively communicate.												
Know that a blog can be used to help communicate with a wider audience.												
Know how to contribute to a blog with clear and appropriate messages.												
Know that some information held on websites may not be accurate or true.												
Beginning to know how to search the Internet and how to think critically about the results returned.												
Know why there are age restrictions on digital media and devices.												
Know where to turn to for help if they see inappropriate content or have inappropriate contact from others.												

Topic specific vocabulary:

appropriate	inappropriate	blog	internet	personal information	reputable source	reliable source	spoof	vlog	verify	website	permission

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch

personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 3.3 Spreadsheets												
Pupils:												
Targets Children can/know/explain/understand:												
Know how to create tables of data within a spreadsheet.												
Know how to use a spreadsheet program to automatically create charts and graphs from data.												
Know how to use various features within a spreadsheet to support solutions to calculations. For example, 'more than', 'less than', and 'equals'.												
Know how to describe a cell location in a spreadsheet.												
Know how to find specified locations in a spreadsheet												

Topic specific vocabulary:

advance mode	bar graph	equals	data	cell address	spreadsheet	columns
table	pie chart	quiz tool	rows	equal to	more than	less than

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software

smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 3.4 Touch typing												
Pupils:												
Targets Children can/know/explain/understand:												
Know typing terminology including names of fingers.												
Know the home, top and bottom row sections on a keyboard.												
Knows the keys typed with left hand.												
Knows the keys typed with right hand.												
Knows the correct way to sit at a keyboard.												

Topic specific vocabulary:

posture	keys	typing	space bar

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output

multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 3.5 Email												
Pupils:												
Targets Children can/know/explain/understand:												
Know the different methods of communication and know the strengths and weaknesses of his form.												
Know how to open and responding to email.												
Know how to use an address book to write an email.												
Know how to use an email environment safely including the importance of the draft feature.												
Know how to add attachments to an email.												
Can explore a simulated email scenario.												

Topic specific vocabulary:

address book	BCC	CC	attatchment	communication	compose	email	inbox	password	personal information	trusted contact	saved to draft

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM

onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 3.6 Branching databases												
Pupils:												
Targets Children can/know/explain/understand:												
Know how to sort objects using just YES/NO.												
Know how YES/NO questions are structured and answered.												
Know how to complete a branching database.												
Know how to edit and adapt a branching database.												
Know how to create a branching database including debugging it.												

Topic specific vocabulary:

binary tree	database	debugging	branching database	data

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 3.7 Simulation												
Pupils:												
Targets Children can/know/explain/understand:												
Know that a computer simulation can represent real and imaginary situations												
Know advantages and problems of using simulations.												
Know how to use a simple simulation to try out different options and test predictions.												
Begin to know how to evaluate simulations by comparing them with real simulations and considering their usefulness.												

Topic specific vocabulary:

analysis	modelling	simulation	evaluation	decision

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
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personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 3.8 Graphing												
Pupils:												
Targets Children can/know/explain/understand:												
Know how to set up a graph with a given number of fields using graphing software (2Graph).												
Know how to enter data for a graph.												
Know how to select the most appropriate chart type for their data and explain reasoning.												
Know how to sort data in graphing software to enable easier analysis.												

Topic specific vocabulary:

column	chart	axis	data	graph	investigation	row	sorting	tally chart

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 3.9 Presenting												
Pupils:												
Targets Children can/know/explain/understand:												
Know what presentation is and how it can be used.												
Know how to add pages/slides, text and shapes to pages, and also format them.												
Know how to add media such as images, audio and videos.												
Know how to use effects and features such as animations and slide transitions.												
Know how timings can help when presenting and know how to include them in presentations.												
Know how to effectively present to an audience using presentation software.												

Topic specific vocabulary:

animation	text box	theme	audio	fill colour	media	review	preview	slide	slideshow	transition	font formatting	sound effect

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM

onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 4.1 Coding												
Pupils:												
Targets Children can/know/explain/understand:												
Begin to know what selection is in computer programming.												
Know how an IF statement works.												
Know how to interpret an IF statement and therefore know how to create a program that includes an IF statement.												
Know how to use co-ordinates in computer programming.												
Know what the 'repeat until' command is.												
Know how an IF/ELSE statement works.												
Know what a variable is in programming.												
Know how to use variables within their programs.												
To know how to create a playable game using a block coding environment.												

Topic specific vocabulary:

action	algorithm	alert	background	code blocks	button	debugging	command	design	execute

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody

saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 4.2 Online safety												
Pupils:												
Targets Children can/know/explain/understand:												
Know that information put online leaves a digital footprint or trail and can expand on prior years' scope of this fact.												
Know some of the ways children can protect themselves from online identity theft.												
Know that information put online by users could be used for identity theft.												
Know the main risks and benefits of installing software and applications.												
Know that copying work of others and presenting it as their own is plagiarism.												
Knows the consequences of plagiarism.												
Knows appropriate behaviour when participating or contributing to collaborative online projects for learning.												
Know some of the main positive and negative influences technology has on health and the environment.												
Knows the importance of balancing screen time with non-screen time.												

Topic specific vocabulary:

citation	adfly	collaborate	cookies	copyright	digital footprint	malware	phishing	plagiarism	ransomware	spam	virus	watermark	smart rules

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch

personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 4.3 Spreadsheets												
Pupils:												
Targets Children can/know/explain/understand:												
Know what cell formatting is.												
• Know how to format cells as currency, percentage, decimal or fraction.												
• Know how to use formula wizard tools.												
• Know how to combine spreadsheet tools to create a purposeful spreadsheet e.g. a timed times table test.												
• Know how to use a spreadsheet to model a real-life situation e.g. budget planner.												
• Know how to add a formula to a cell in order to automatically make a calculation in that cell.												

Topic specific vocabulary:

spreadsheet	average	formula	column	budget	chart

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM

onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 4.4 Writing for different audiences												
Pupils:												
Targets Children can/know/explain/understand:												
Know how font size and style can affect the impact of a text.												
Know how to use a simulated scenario to produce a news report												
Know how to use a simulated scenario to write for a community campaign.												

Topic specific vocabulary:

campaign	font	genre	opinion	reporter	viewpoint	format

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 4.5 Logo												
Pupils:												
Targets Children can/know/explain/understand:												
Know the structure of the coding language of Logo.												
Know how to input simple instructions in Logo language environment.												
Know how to create letter shapes using Logo.												
Know what the repeat function in Logo is and its usefulness. Use it to create shapes such as squares.												
Know what procedures are and use this knowledge to build procedures in Logo												

Topic specific vocabulary:

LOGO	grid	prediction	pen up	pen down	procedure	debugging	multi line mode

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals

reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 4.6 Animation												
Pupils:												
Targets Children can/know/explain/understand:												
Know how animations are created by hand.												
Know how animations are created using computers.												
Know what onion skinning is when referring to animation.												
Know that animations can be enhanced using features in software such as background and sounds.												
Know what 'stop motion' animation is												

Topic specific vocabulary:

FPS frames per second	stop motion	frame	pause	animation	onion skinning

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
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personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
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border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals

reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 4.7 Effective searching												
Pupils:												
Targets Children can/know/explain/understand:												
Know how to find information from a search results page.												
Know how to search effectively to find out information.												
Know how to identify if an information source is true and reliable.												

Topic specific vocabulary:

search engine	balanced view	Easter eggs	internet	key words	reliability	results page

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
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personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
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border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 4.8 Hardware investigators												
Pupils:												
Targets Children can/know/explain/understand:												
Know there are key parts that make up a computer.												
Know what each of the key parts is called and the function of them.												

Topic specific vocabulary:

CPU	graphics card	hard drive	motherboard	software	RAM	peripherals	input	output	graphics card	network card

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
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personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
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artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
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Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 4.9 Making music												
Pupils:												
Targets Children can/know/explain/understand:												
Know the main elements of music.												
Know what rhythm and tempo is and able to use this knowledge to experiment with it.												
Know that computers can be used to create music compositions.												
Know how to apply knowledge of music to create own composition using software.												

Topic specific vocabulary:

BPM	tempo	rhythm	melody	harmonious	pitch	pulse	synths	texture	dynamics

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output
multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Computing: KS2 – Assessment tracker: Year 3 & 4												
Topic: Unit 4.10 Artificial intelligence												
Pupils:												
Targets Children can/know/explain/understand:												
Know the basic concept of what artificial intelligence is.												
Know the key impact of artificial intelligence on daily life.												
Know real-life examples of the current use of artificial intelligence.												
Know how to think critically about artificial intelligence including its use in the future.												
Know how to utilise artificial intelligence to create media such as images and music.												

Topic specific vocabulary:

algorithm	artificial intelligence	data

Milestone 2: Vocabulary (words to revisit throughout the two-years that the children study Milestone 2).

advance mode	algorithm	background	bug	button	click event	code	password	review
collision detection event	command	debug	debugging	appropriate	inappropriate	blog	internet	texture
personal information	spoof	alert	action	permission	less than	more than	equal to	synths
reputable source	verify	vlog	website	rows	columns	spin tool	spreadsheet	tempo
reliable source	bar graph	equals	data	cell address	pie chart	quiz tool	table	rhythm
posture	keys	typing	space bar	address book	BCC	CC	attatchment	pulse
communication	compose	email	inbox	password	axis	chart	graph	pitch
personal information	trusted contact	design	analysis	modelling	simulation	evaluation	decision	melody
saved to draft	binary tree	database	investigation	tally chart	sorting	animation	audio	harmonious
border properties	text box	duration	editing	fill colour	font colour	font formating	preview	dynamics
artificial intelligence	slide	slideshow	timing	transition	sound effect	media	code blocks	BPM
branching database	execute	adfly	citation	collaborate	cookies	copyright	digital footprint	software
smart rules	malware	phishing	plagiarism	ransomware	spam	virus	watermark	RAM
onion skinning	budget	formula	chart	campaign	font	genre	opinion	peripherals
reporter	viewpoint	LOGO	grid	prediction	pen up	pen down	procedure	input and output

multi line mode	pause	frame	animation	balanced view	key words	reliability	results page	network card
FPS frames per second	stop motion	search engine	components	Easter eggs	CPU	graphics card	hard drive	motherboard

Key Threshold Milestone 3 (Year 5 & 6)

– Assessment Tracker (print one copy of this page and tick/date the Milestone 3 targets when they are covered in class.

Class name: **Year groups:** **Academic year:**

Computer Science	Information Technology	Digital Literacy
I can make more complex real-life problems into algorithms for a program. (5.1)	I can search precisely when using a search engine. For example, I know I can add additional words or removes words to help find better results. (5.2)	I have a secure knowledge of online safety rules taught at school. (5.2 & across units)
I can test and debug my programs as I work. (5.1, 5.5)	I can explain in detail how accurate, safe and reliable the content is on a webpage. (5.2)	I can demonstrate the safe and respectful use of different online technologies and online services. (5.2 & across units)
I can convert (translate) algorithms that contain sequence, selection and repetition into code that works. (5.1)	I can make appropriate improvements to digital work I have created. (Across units)	I always relate appropriate online behaviour to my right to have personal privacy. (5.2 & across units)
I can use sequence, selection, repetition, and some other coding structures in my code. (5.1)	I can comment on how successful a digital solution is that I have created. For example, a program built in 2Code that sorts decimals numbers. (Across units)	I know how to not let my mental wellbeing or others be affected by use of online technologies and services. (5.2 & across units)
I can organise my code carefully for example, naming variables and using tabs. I know this will help me debug more efficiently. (5.1)	I can work collaboratively with others creating solutions to problems using appropriate software such as 2Code. (Across units)	I can demonstrate safe and respectful use of a range of different technologies and online services. (6.2, 6.4)
I can use logical methods to identify the cause of any bug with support to identify the specific line of code. (5.1)	I can use collaborative modes such as within 2Connect to work with others and share it. (5.7)	I can identify more discrete inappropriate behaviours online. For example, someone who may be trying to groom me or someone else. (6.2)
I know the importance of computer networks and how they help solve problems and enhance communication. (5.2)	I can use filters when searching for digital content. (6.2,6.9)	I can use critical thinking to help me stay safe online. (6.2)
I recognise the main dangers that can be perpetuated via computer networks. (5.2)	I can explain in detail how accurate and reliable a webpage and its content is. (6.2)	I know the value of protecting my privacy and others online. (6.2, 6.4)
I can explain what personal information is and know strategies for keeping this safe. (5.2)	I can compare a range of digital content sources and rate them in terms of content quality and accuracy. (6.1, 6.3, 6.4, 6.5, 6.7,6.9)	
I can use the most appropriate form of online communication according to the digital content. For example, use 2Email, 2Blog and Display Boards. (5.2 & others)	I can consider the intended audience carefully when I design and make digital content. (6.1, 6.3, 6.4, 6.5, 6.7,6.9)	
I can turn a complex programming task into an algorithm. (6.1)	I can design and create my own online blogs. (6.4)	
I can identify the important aspects of a programming task (abstraction). (6.1)	I can use criteria to evaluate the quality of my own and others digital solutions, suggesting refinements. (6.1, 6.3, 6.4, 6.5, 6.7,6.9)	

I can decompose important aspects of a programming task in a logical way, identifying appropriate coding structures that would work. (6.1)		
I can test and debug my program as I work on it and use logical methods to identify a cause of a bug. (6.1)		
I can identify a specific line of code that is causing a problem in my program and attempt a fix. (6.1)		
I can translate algorithms that include sequence, selection and repetition into code and nest these structures within each other. (6.1)		
I can use inputs and outputs within my coded programs such as sound, movement and buttons and represent the state of an object (6.1, 6.7)		
I can interpret (understand) a program in parts and can make logical attempts to put the separate parts together in an algorithm to explain the program as a whole. (6.1)		
I can explain the difference between the internet and the World Wide Web. (6.2, 6.4,6.6)		
I can explain what a WAN and LAN is and describe the process of how access to the internet in school is possible. (6.2,6.6)		

TOPICS TAUGHT in Upper KS2:

In addition to the specific skills that the children will keep revisiting through the key concepts or substantive knowledge there will be specific learning related to individual topics. At Stapleford Primary School children are taught in mixed age classes e.g. Years 5 & 6 together etc. As a result, we have a two-year topic plan to prevent the children repeating subject matter. More detail is shown below as to what will be taught within each topic.

Upper KS2 (Class 1 – Years 5 & 6) Rolling Programme

Subject	**Year A** (2022-2023), (2024-2025) (2026-2027) etc.			**Year B** (2021-2022), (2023-2024), (2025-2026) etc.		
	Autumn Term	Spring Term	Summer Term	Autumn Term	Spring Term	Summer Term
Computing (see Purple Mash scheme of work)	Unit 5.1 Coding Unit 5.2 Online Safety	Unit 5.3 Spreadsheets Unit 5.4 Databases	Unit 5.5 Game Creator Unit 5.6 3D Modelling Unit 5.7 Concept Maps	Unit 6.1 Coding Unit 6.2 Online Safety	Unit 6.3 Spreadsheets Unit 6.4 Blogging	Unit 6.5 Text Adventures Unit 6.6 Networks Unit 6.7 Quizzing

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
phishing	password	smart rules	validity	identity theft	rows	columns	data	spreadsheet
formula	format	formula bar	variable	personal information	how many tool	arrange	avatar	chart
collaborative	database	formula wizard	field	reliable source	group	record	search	statistics
sort	animation	image	texture	advance mode	computer game	instructions	perspective	customise
interactive	evaluation	screenshot	playability	totalling tool	2D	3D	3D printing	design brief
template	pattern fill	points	net	database report	concept	concept map	connection	collaborate
node	caps lock	captions	cursor	CAD – computer aided design	document	font	hyperlink	formatting
merge cells	reliability	command	story mode	presentation mode	emulator	simulator	external device	host
input	QR code	output	sensor	bulleted lists	co-ordinates	event	decomposition	execute
data analysis	digital footprint	inappropriate	print screen	copy and paste	screen time	spoof	secure websites	run
approval	archive	blog	blog post	creative commons	commenting	Vlog	sprite	selection
function	flow of control	step through	hub	page orientation	switch	router	audience	audio
clone	preview	wide area network	network	location sharing	quiz	base 2	bit	base 10
digit	integer	world wide web	internet	text-based adventure	nibble	byte	kilobyte	megabyte
transistor	range	case-sensitive	Wi-Fi	Local area network	gigabyte	terabyte	cell reference	text wrapping

The Assessment Tracker documents below outline what children will learn within each topic

Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 5.1 Coding												
Pupils:												
Targets Children can/know/explain/understand:												
Begin to know how to simplify code in order to make own programming more efficient.												
Know how to create a simple simulation using 2Code. For example, a traffic light sequence.												
Know what decomposition and abstraction are in computer science.												
Know the need to start coding at a basic level of abstraction to remove superfluous details from own programs.												
Know how to use decomposition to make a plan of a real-life situation.												
Know what a function is in coding and know how to use a function in own program to make it more efficient.												
Know what different variable types are.												
Know what strings are and how to use them.												
Know how to set and change variable values in code.												
Know some of the common ways that text variables can be used in programming.												
Know and use concatenation in own programs.												

Topic specific vocabulary:

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
phishing	password	smart rules	validity	identity theft	rows	columns	data	spreadsheet
formula	format	formula bar	variable	personal information	how many tool	arrange	avatar	chart
collaborative	database	formula wizard	field	reliable source	group	record	search	statistics

sort	animation	image	texture	advance mode	computer game	instructions	perspective	customise
interactive	evaluation	screenshot	playability	totalling tool	2D	3D	3D printing	design brief
template	pattern fill	points	net	database report	concept	concept map	connection	collaborate
node	caps lock	captions	cursor	CAD – computer aided design	document	font	hyperlink	formatting
merge cells	reliability	command	story mode	presentation mode	emulator	simulator	external device	host
input	QR code	output	sensor	bulleted lists	co-ordinates	event	decomposition	execute
data analysis	digital footprint	inappropriate	print screen	copy and paste	screen time	spoof	secure websites	run
approval	archive	blog	blog post	creative commons	commenting	Vlog	sprite	selection
function	flow of control	step through	hub	page orientation	switch	router	audience	audio
clone	preview	wide area network	network	location sharing	quiz	base 2	bit	base 10
digit	integer	world wide web	internet	text-based adventure	nibble	byte	kilobyte	megabyte
transistor	range	case-sensitive	Wi-Fi	Local area network	gigabyte	terabyte	cell reference	text wrapping

Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 5.2 Online Safety												
Pupils:												
Targets Children can/know/explain/understand:												
Know in more detail from prior learning of the impact that sharing digital content can have.												
Know how to think critically about information they share online.												
Know responsibilities they have for themselves and others regarding online behaviour.												
Know and have developed knowledge from prior years about maintaining secure passwords.												
Know about image manipulation using software and the advantages or disadvantages of this when shared online.												
Know what is meant by appropriate and inappropriate text, photographs and videos.												
Know about the impact of sharing media such as photographs and videos online.												
Know about the importance of citing content online from others and know how to do this.												
Know how to select keywords and search techniques to find relevant information to increase reliability.												

Topic specific vocabulary:

citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
phishing	password	smart rules	validity	identity theft	spoof	reliable source	personal inofrmation	inappropriate

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
phishing	password	smart rules	validity	identity theft	rows	columns	data	spreadsheet
formula	format	formula bar	variable	personal information	how many tool	arrange	avatar	chart
collaborative	database	formula wizard	field	reliable source	group	record	search	statistics
sort	animation	image	texture	advance mode	computer game	instructions	perspective	customise

interactive	evaluation	screenshot	playability	totalling tool	2D	3D	3D printing	design brief
template	pattern fill	points	net	database report	concept	concept map	connection	collaborate
node	caps lock	captions	cursor	CAD – computer aided design	document	font	hyperlink	formatting
merge cells	reliability	command	story mode	presentation mode	emulator	simulator	external device	host
input	QR code	output	sensor	bulleted lists	co-ordinates	event	decomposition	execute
data analysis	digital footprint	inappropriate	print screen	copy and paste	screen time	spoof	secure websites	run
approval	archive	blog	blog post	creative commons	commenting	Vlog	sprite	selection
function	flow of control	step through	hub	page orientation	switch	router	audience	audio
clone	preview	wide area network	network	location sharing	quiz	base 2	bit	base 10
digit	integer	world wide web	internet	text-based adventure	nibble	byte	kilobyte	megabyte
transistor	range	case-sensitive	Wi-Fi	Local area network	gigabyte	terabyte	cell reference	text wrapping

Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 5.3 Spreadsheets												
Pupils:												
Targets Children can/know/explain/understand:												
Know how to use formulae within a spreadsheet to convert measurements of length and distance.												
Know how to use more advanced formulae effectively. For example, to use formulae to calculate area and perimeter of shapes.												
Know how to create formulae that use text variables.												
Know how to use tools within a spreadsheet e.g. 2Calculate and the count tool to answer hypotheses. For example, to answer hypotheses about common letters in use.												

Topic specific vocabulary:

rows	columns	data	spreadsheet	formula	format	formula bar	variable	advance mode	totalling tool	how many tool	formula wizard

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
phishing	password	smart rules	validity	identity theft	rows	columns	data	spreadsheet
formula	format	formula bar	variable	personal information	how many tool	arrange	avatar	chart
collaborative	database	formula wizard	field	reliable source	group	record	search	statistics
sort	animation	image	texture	advance mode	computer game	instructions	perspective	customise
interactive	evaluation	screenshot	playability	totalling tool	2D	3D	3D printing	design brief
template	pattern fill	points	net	database report	concept	concept map	connection	collaborate
node	caps lock	captions	cursor	CAD – computer aided design	document	font	hyperlink	formatting
merge cells	reliability	command	story mode	presentation mode	emulator	simulator	external device	host
input	QR code	output	sensor	bulleted lists	co-ordinates	event	decomposition	execute
data analysis	digital footprint	inappropriate	print screen	copy and paste	screen time	spoof	secure websites	run
approval	archive	blog	blog post	creative commons	commenting	Vlog	sprite	selection
function	flow of control	step through	hub	page orientation	switch	router	audience	audio
clone	preview	wide area network	network	location sharing	quiz	base 2	bit	base 10
digit	integer	world wide web	internet	text-based adventure	nibble	byte	kilobyte	megabyte
transistor	range	case-sensitive	Wi-Fi	Local area network	gigabyte	terabyte	cell reference	text wrapping

Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 5.4 Databases												
Pupils:												
Targets Children can/know/explain/understand:												
Know how to search for information within a database.												
• Know the different ways to search for information in a database.												
• Know how to add information into a shared database.												
• Know how to create own database.												
• Know how to create new records.												
• Know what fields are and know how to correctly add information.												
• Know how to phrase questions so they can be correctly answered using a search of database.												

Topic specific vocabulary:

arrange	avatar	chart	collaborative	database	field	group	record	data	database report	statistics	sort	search

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
phishing	password	smart rules	validity	identity theft	rows	columns	data	spreadsheet
formula	format	formula bar	variable	personal information	how many tool	arrange	avatar	chart
collaborative	database	formula wizard	field	reliable source	group	record	search	statistics
sort	animation	image	texture	advance mode	computer game	instructions	perspective	customise
interactive	evaluation	screenshot	playability	totalling tool	2D	3D	3D printing	design brief
template	pattern fill	points	net	database report	concept	concept map	connection	collaborate
node	caps lock	captions	cursor	CAD – computer aided design	document	font	hyperlink	formatting
merge cells	reliability	command	story mode	presentation mode	emulator	simulator	external device	host
input	QR code	output	sensor	bulleted lists	co-ordinates	event	decomposition	execute
data analysis	digital footprint	inappropriate	print screen	copy and paste	screen time	spoof	secure websites	run
approval	archive	blog	blog post	creative commons	commenting	Vlog	sprite	selection

function	flow of control	step through	hub	page orientation	switch	router	audience	audio
clone	preview	wide area network	network	location sharing	quiz	base 2	bit	base 10
digit	integer	world wide web	internet	text-based adventure	nibble	byte	kilobyte	megabyte
transistor	range	case-sensitive	Wi-Fi	Local area network	gigabyte	terabyte	cell reference	text wrapping

Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 5.5 Game creator												
Pupils:												
Targets Children can/know/explain/understand:												
Know what some of the main elements are that make a successful game.												
Know how to plan a playable game.												
Know how to incorporate media such as sound and images.												
Know how to manipulate media including adding animation.												
Know how to successfully evaluate games.												

Topic specific vocabulary:

animation	image	texture	computer game	instructions	perspective	customise	interactive	evaluation	screenshot	playability

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
phishing	password	smart rules	validity	identity theft	rows	columns	data	spreadsheet
formula	format	formula bar	variable	personal information	how many tool	arrange	avatar	chart
collaborative	database	formula wizard	field	reliable source	group	record	search	statistics
sort	animation	image	texture	advance mode	computer game	instructions	perspective	customise
interactive	evaluation	screenshot	playability	totalling tool	2D	3D	3D printing	design brief
template	pattern fill	points	net	database report	concept	concept map	connection	collaborate
node	caps lock	captions	cursor	CAD – computer aided design	document	font	hyperlink	formatting
merge cells	reliability	command	story mode	presentation mode	emulator	simulator	external device	host
input	QR code	output	sensor	bulleted lists	co-ordinates	event	decomposition	execute
data analysis	digital footprint	inappropriate	print screen	copy and paste	screen time	spoof	secure websites	run
approval	archive	blog	blog post	creative commons	commenting	Vlog	sprite	selection
function	flow of control	step through	hub	page orientation	switch	router	audience	audio
clone	preview	wide area network	network	location sharing	quiz	base 2	bit	base 10
digit	integer	world wide web	internet	text-based adventure	nibble	byte	kilobyte	megabyte
transistor	range	case-sensitive	Wi-Fi	Local area network	gigabyte	terabyte	cell reference	text wrapping

Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 5.6 3D Modelling												
Pupils:												
Targets Children can/know/explain/understand:												
Know what modelling software is and the skills of computer aided design.												
Know the effect of moving points when designing.												
Know how to design a 3D model to fit certain criteria.												
Know how to refine and print a model.												

Topic specific vocabulary:

2D	3D	3D printing	design brief	pattern fill	CAD – computer aided design	template	points	net

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
phishing	password	smart rules	validity	identity theft	rows	columns	data	spreadsheet
formula	format	formula bar	variable	personal information	how many tool	arrange	avatar	chart
collaborative	database	formula wizard	field	reliable source	group	record	search	statistics
sort	animation	image	texture	advance mode	computer game	instructions	perspective	customise
interactive	evaluation	screenshot	playability	totalling tool	2D	3D	3D printing	design brief
template	pattern fill	points	net	database report	concept	concept map	connection	collaborate
node	caps lock	captions	cursor	CAD – computer aided design	document	font	hyperlink	formatting
merge cells	reliability	command	story mode	presentation mode	emulator	simulator	external device	host
input	QR code	output	sensor	bulleted lists	co-ordinates	event	decomposition	execute
data analysis	digital footprint	inappropriate	print screen	copy and paste	screen time	spoof	secure websites	run
approval	archive	blog	blog post	creative commons	commenting	Vlog	sprite	selection
function	flow of control	step through	hub	page orientation	switch	router	audience	audio
clone	preview	wide area network	network	location sharing	quiz	base 2	bit	base 10
digit	integer	world wide web	internet	text-based adventure	nibble	byte	kilobyte	megabyte
transistor	range	case-sensitive	Wi-Fi	Local area network	gigabyte	terabyte	cell reference	text wrapping

Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 5.7 Concept maps												
Pupils:												
Targets Children can/know/explain/understand:												
Know the need for visual representations when generating and discussing complex ideas.												
Know the uses of a 'concept map.'												
Know what is meant by 'concept map', 'stage', 'nodes' and 'connections.'												
Know how to create a concept map using software such as 2Connect.												
Know that concept maps can be used to retell stories and information.												
Know how to present a concept map to an audience.												

Topic specific vocabulary:

concept	concept map	connection	collaborate	node	story mode	presentation mode

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
phishing	password	smart rules	validity	identity theft	rows	columns	data	spreadsheet
formula	format	formula bar	variable	personal information	how many tool	arrange	avatar	chart
collaborative	database	formula wizard	field	reliable source	group	record	search	statistics
sort	animation	image	texture	advance mode	computer game	instructions	perspective	customise
interactive	evaluation	screenshot	playability	totalling tool	2D	3D	3D printing	design brief
template	pattern fill	points	net	database report	concept	concept map	connection	collaborate
node	caps lock	captions	cursor	CAD – computer aided design	document	font	hyperlink	formatting
merge cells	reliability	command	story mode	presentation mode	emulator	simulator	external device	host
input	QR code	output	sensor	bulleted lists	co-ordinates	event	decomposition	execute
data analysis	digital footprint	inappropriate	print screen	copy and paste	screen time	spoof	secure websites	run
approval	archive	blog	blog post	creative commons	commenting	Vlog	sprite	selection
function	flow of control	step through	hub	page orientation	switch	router	audience	audio
clone	preview	wide area network	network	location sharing	quiz	base 2	bit	base 10

digit	integer	world wide web	internet	text-based adventure	nibble	byte	kilobyte	megabyte
transistor	range	case-sensitive	Wi-Fi	Local area network	gigabyte	terabyte	cell reference	text wrapping

Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 5.8 Word processing (MS Word) – additional unit taught when word processing in other subjects.												
Pupils:												
Targets Children can/know/explain/understand:												
Know what a word processing tool is for.												
Know how to create a word processing document.												
Know how to alter the look of text and navigate around a document.												
Know how to alter page layout including heading and columns.												
Know how to add and edit images.												
Know how to add features to enhance look and usability within a document. For example: textboxes, hyperlinks, contents pages.												
Know how to use tables to present information.												

Topic specific vocabulary:

creative commons	hyperlink	formatting	caps lock	captions	cursor	bulleted lists	copy and paste	merge cells
word processing tool	readability	copyright	document	font	page orientation	text wrapping	word art	edit

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
phishing	password	smart rules	validity	identity theft	rows	columns	data	spreadsheet
formula	format	formula bar	variable	personal information	how many tool	arrange	avatar	chart
collaborative	database	formula wizard	field	reliable source	group	record	search	statistics
sort	animation	image	texture	advance mode	computer game	instructions	perspective	customise
interactive	evaluation	screenshot	playability	totalling tool	2D	3D	3D printing	design brief
template	pattern fill	points	net	database report	concept	concept map	connection	collaborate
node	caps lock	captions	cursor	CAD – computer aided design	document	font	hyperlink	formatting
merge cells	reliability	command	story mode	presentation mode	emulator	simulator	external device	host
input	QR code	output	sensor	bulleted lists	co-ordinates	event	decomposition	execute
data analysis	digital footprint	inappropriate	print screen	copy and paste	screen time	spoof	secure websites	run

approval	archive	blog	blog post	creative commons	commenting	Vlog	sprite	selection
function	flow of control	step through	hub	page orientation	switch	router	audience	audio
clone	preview	wide area network	network	location sharing	quiz	base 2	bit	base 10
digit	integer	world wide web	internet	text-based adventure	nibble	byte	kilobyte	megabyte
transistor	range	case-sensitive	Wi-Fi	Local area network	gigabyte	terabyte	cell reference	text wrapping

Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 6.1 Coding												
Pupils:												
Targets Children can/know/explain/understand:												
Know how to implement a game which includes timers and a score.												
Know what the launch command is.												
Build on knowledge of functions.												
Know how to use multiple functions in own program.												
Know how to arrange code in multiple tabs.												
Know how to develop creativity when coding to generate novel effects.												
Know the different options of generating user input in 2Code.												
Know how to attribute variables to user input.												
Know the need to code for all possibilities when using user inputs.												
Know how 2Code can be used to make a text based adventure game.												
Know with improving understanding of how they can alter existing programs to reflect their own ideas.												
Building on existing knowledge of debugging, children know how to debug more effectively.												

Topic specific vocabulary:

action	algorithm	command	co-ordinates	event	decomposition	execute	flowchart	debug	debugging	run

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
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phishing	password	smart rules	validity	identity theft	rows	columns	data	spreadsheet
formula	format	formula bar	variable	personal information	how many tool	arrange	avatar	chart

collaborative	database	formula wizard	field	reliable source	group	record	search	statistics
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data analysis	digital footprint	inappropriate	print screen	copy and paste	screen time	spoof	secure websites	run
approval	archive	blog	blog post	creative commons	commenting	Vlog	sprite	selection
function	flow of control	step through	hub	page orientation	switch	router	audience	audio
clone	preview	wide area network	network	location sharing	quiz	base 2	bit	base 10
digit	integer	world wide web	internet	text-based adventure	nibble	byte	kilobyte	megabyte
transistor	range	case-sensitive	Wi-Fi	Local area network	gigabyte	terabyte	cell reference	text wrapping

Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 6.2 Online safety												
Pupils:												
Targets Children can/know/explain/understand:												
Know the benefits and risks of mobile devices broadcasting the location of the user/device, e.g., apps accessing location.												
Know what secure sites are.												
Know that secure sites will have industry standard seals of approval.												
Build on knowledge of Digital Footprints. For example, know how and why people use their information.												
Build on knowledge of appropriate online behaviours and how this can protect themselves and others from possible online dangers. For example, the dangers of promoting inappropriate content online.												
Have greater knowledge of how to make more informed choices of how free time is used.												
Know the effects on individual health when having too much screen time.												

Topic specific vocabulary:

data analysis	digital footprint	inappropriate	print screen	copy and paste	screen time	spoof	secure websites	location sharing	PEGI rating	password

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
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phishing	password	smart rules	validity	identity theft	rows	columns	data	spreadsheet
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interactive	evaluation	screenshot	playability	totalling tool	2D	3D	3D printing	design brief
template	pattern fill	points	net	database report	concept	concept map	connection	collaborate
node	caps lock	captions	cursor	CAD – computer aided design	document	font	hyperlink	formatting

merge cells	reliability	command	story mode	presentation mode	emulator	simulator	external device	host
input	QR code	output	sensor	bulleted lists	co-ordinates	event	decomposition	execute
data analysis	digital footprint	inappropriate	print screen	copy and paste	screen time	spoof	secure websites	run
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function	flow of control	step through	hub	page orientation	switch	router	audience	audio
clone	preview	wide area network	network	location sharing	quiz	base 2	bit	base 10
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transistor	range	case-sensitive	Wi-Fi	Local area network	gigabyte	terabyte	cell reference	text wrapping

Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 6.3 Spreadsheets												
Pupils:												
Targets Children can/know/explain/understand:												
Know how to create a spreadsheet to help answer a mathematical question relating to probability.												
Know how to take 'copy' and 'paste' shortcuts.												
Know how to problem solve during mathematical investigations when using spreadsheets by using tools such as the 'Count tool'.												
Know how to create a spreadsheet to produce computational models. For example, creating a spreadsheet that works out discounts and final price sales. Children will know how to use advanced formula to assist with this.												
Know how to use a spreadsheet to help plan actions. For example, create a spreadsheet to plan how to spend pocket money and the effect of saving.												

Topic specific vocabulary:

advance mode	budget	chart	how many tool	dice tool	expense	formula bar	formula wizard	format cell	move cell tool	probability	profit

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
phishing	password	smart rules	validity	identity theft	rows	columns	data	spreadsheet
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merge cells	reliability	command	story mode	presentation mode	emulator	simulator	external device	host
input	QR code	output	sensor	bulleted lists	co-ordinates	event	decomposition	execute

data analysis	digital footprint	inappropriate	print screen	copy and paste	screen time	spoof	secure websites	run
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Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 6.4 Blogging												
Pupils:												
Targets Children can/know/explain/understand:												
Know the purpose of writing a blog.												
Know the features of successful blog writing.												
Know how to plan a blog.												
Know how to write a blog.												
Know how to write a blog post.												
Know that the way information is presented within a blog has an impact upon the audience.												
Know how to contribute to others' blogs.												
Know the importance of having an approval process when creating blog content or modifying it.												
Know from Online Safety knowledge that content within blogs applies. For example, children know the issues surrounding inappropriate posts and cyberbullying.												

Topic specific vocabulary:

approval	archive	blog	blog post	commenting	Vlog	collaborate

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
phishing	password	smart rules	validity	identity theft	rows	columns	data	spreadsheet
formula	format	formula bar	variable	personal information	how many tool	arrange	avatar	chart
collaborative	database	formula wizard	field	reliable source	group	record	search	statistics
sort	animation	image	texture	advance mode	computer game	instructions	perspective	customise
interactive	evaluation	screenshot	playability	totalling tool	2D	3D	3D printing	design brief

template	pattern fill	points	net	database report	concept	concept map	connection	collaborate
node	caps lock	captions	cursor	CAD – computer aided design	document	font	hyperlink	formatting
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Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 6.5 Text adventures												
Pupils:												
Targets Children can/know/explain/understand:												
Know what a text based adventure is.												
Know how to convert a simple story with 2 or 3 levels of decision making into a logical design.												
Know how to use the functionality of 2Create a Story Adventure mode to create, test and debug using plans.												
Know the difference between a map-based game and a sequential story-based game.												
Know how to use written plans to code a map-based adventure using 2Code.												
Know how to recall existing knowledge to support coding a map-based adventure game. For example, using functions, two-way selection (IF/ELSE statements) and repetition.												

Topic specific vocabulary:

text-based adventure	function	flow of control	step through	sprite	selection	debug	debugging

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
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Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 6.6 Networks												
Pupils:												
Targets Children can/know/explain/understand:												
Know the difference between the World Wide Web and the Internet.												
Know what a WAN and LAN is and the key differences between them.												
Know how a school network accesses the Internet.												
Know the history of the Internet.												
Know some of the major changes in technology which have taken place in their lifetime.												

Topic specific vocabulary:

wide area network	network	world wide web	internet	switch	router	Wi-Fi	local area network

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
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Computing: KS2 – Assessment tracker: Year 5 & 6												
Topic: Unit 6.7 Quizzing												
Pupils:												
Targets Children can/know/explain/understand:												
Know how to use create activities for younger children using software such as 2DIY.												
Know about different question types within quizzing software tools such as 2Quiz.												
Know how to give and respond to feedback based on quizzes made.												
Know how to create their own grammar games.												
Know how to use multiple pieces of software to enhance a quiz. E.g. creating a quiz that requires children to look up information on a database												

Topic specific vocabulary:

audience	audio	clone	preview	cloze	case-sensitive

Milestone 3: Vocabulary (words to revisit throughout the two-years that the children study Milestone 3).

abstraction	action	algorithm	concatenation	debug	debugging	decomposition	efficient	flowchart
citation	collaborate	communication	copyright	creative commons license	encrypt	ownership	PEGI rating	malware
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