

Subject name	Subject content Key Stage 1
Computing	

The EYFS framework is structured very differently to the national curriculum. The Early Years Foundation Stage sets standards for the development, learning and care of children from birth.

The most relevant statements for computing are taken from the following areas of learning:

- •Personal, Social and Emotional Development
- Physical Development
- •Understanding the World
- •Expressive Arts and Design

	Personal, Social and Emotional Development	Physical Development	Understanding the World	Expressive Arts and Design
Foundation	Show resilience and perseverance in the face of a challenge. Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. Explain the reasons for rules, know right from wrong and try to behave accordingly.	Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Know and talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time'.	Explore, use and refine a variety of artistic effects to express their ideas and feelings.	Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function



Subject name Computing		Subject conte	Subject content Key Stage 1 Year 1		
National Curriculum	Topic	Sticky Knowledge	Skills		Vocabulary
 understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions create and debug simple programs use logical reasoning to predict the behaviour of simple programs use technology purposefully to create, organise, store, manipulate and retrieve digital content recognise common uses of information technology beyond school use technology safely and respectfully, keeping personal information private; identify where 	Multimedia	Know how to use a graphics programme Know how to use a key board Know how to record sound Know to capture video Know how to present information (creating a slideshow)	I can use various tools such as brushe stamps, shapes. I can print work. I can save my work. I can use spacebar, backspace, delete return. I can start to use two hands when ty I can use Word to create short texts. I can start to use a mouse. I can record sound away from a com I can use software to record sounds. I can change sounds recorded. I can capture video. I can discuss which videos to keep ar I can arrange clips to create a short f I can collect some information. I can create a slide show. I can present the information to a greater of the start of the	e, arrow keys, and ping. puter. and which to delete. ilm.	Icons: brush, pen, rubber, stamps, shapes Print, Save Keyboard keys: spacebar, backspace, delete, arrow keys, return Microsoft Word Screen, Mouse Record, Software Images, Keyboard Paint, Videos Camera stills Sounds, Image bank Clips, Slide show Slides, Presentation
to go for help and support when they have concerns about content or contact on the internet or other online technologies	Programming	Know how to programme	I can explore what happens when a sis given. I can give a set of simple instructions I can program an avatar/Bee-Bot to fi can debug a simple program. I can begin to use the terms, program and coding.	to follow out a task. follow simple task.	Sequence Chronological Avatar Bee-Bot Equipment Buttons Movement Instructions Robots Patterns Program Algorithm Debug Coding



Online	Know how to use the internet for research Know what an email is	I can talk about websites I have been on. I can Explore a website. I can recognise an email address. I can find the @ key on the keyboard and understand what	Internet Google Chrome Web browser Website Web address Technology Share Create Internet Purpose Online tools Communicate
		it is used for.	
Data	Know how to collect and use data	I can know that images give information. I can sort objects and pictures into lists or simple tables.	Collect Set of photos Count Organise Photographs Video Sound Data Pictogram Digitally
E-Safety	Know how to be safe when using the internet	I can make decisions about whether or not statements found on the internet are true or not. I can Identify devices that can be used to search the Internet. I can Identify what things count as personal information. I can search safely on the internet. I can know to tell a trusted adult if I see or hear something on the internet that upsets me. I can consider other people's feelings on the Internet.	Choices Internet Website Rules Online Email Online and offline Safety Personal/private information



Subject name Computing S		ject content Key Stage 1	Year 2		
National Curriculum	Topic	Sticky Knowledge	Skills	Vocabulary	
 understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions create and debug simple programs use logical reasoning to predict the behaviour of simple programs use technology purposefully to create, organise, store, manipulate and retrieve digital content recognise common uses of information technology beyond school use technology safely and respectfully, keeping personal information private; identify where to 	Multimedia	Know how to use a key board and word-processing programme Know how to record sound Know how to capture video Know how to present information (creating a slideshow)	I can use ICT to generate (search) ideas for my work. I can use various tools such as brushes, pens, rubber, stamps, shapes, text, fill to create a piece of work. I can print work. I can save my work. I can retrieve a saved file. I can use the keyboard to control the text .(using the keyboard functions) I can use two hands when typing. I can use Word to create texts to present and print. I can use a mouse confidently. I can record sound at and away from a computer. I can use software to record sounds. I can change sounds recorded. I can Save, retrieve and edit sounds. I can capture video. I can keep and delete videos. I can arrange clips to create a short film. I can add a title and credits. I can Choose a suitable subject and collect some information. I can create a mind-map or slide show. I can present the information to a group. I can store and retrieve data/presentation.	Paint effects, Templates Tools: brush, pen, paint, shape, rubber, stamp, text, fill, File, Retrieve, Animation, Documents , Index finger typing, Enter/return Caps lock, Sound clip, Record, Edit, Combine, Title, Credits Mind-map or Slide show	



go for help and support when they have concerns about content or contact on the internet or other online technologies	Programming	Know how to programme	I can explore what happens when a sequence of instructions is given. I can give a set of instructions to follow out a task (algorithms and coding) I can program an avatar/Bee-Bot to follow a task. I can debug simple programs. I can use the terms, program, debug, algorithms and coding confidently and accurately. I can use logical reasoning to predict the behaviour of simple programs.	Forward , Backward, Right-angle, turn, Algorithm, Sequence, Debug Predict, Input, Output , Code Prediction
	Online	Know how to use the internet for research	I can explore a website by clicking on arrows, menus, search engines and hyperlinks.	Information sources, Communication, Purposes, Website, content, Search engine, Hyperlink
	Ю	Know what and how to create an email	I can contribute to a class email. I can open and select to reply to an email as a class.	
	Data	Know how to collect and use data	I can understand what a pictogram is showing. I can put data into a program . I can make a simple Y/N tree diagram to sort information	Capturing moments, Magnified images, Questions , Data collection Graphs, Charts, Save, Retrieve
	E-Safety	Know how to be safe when using the internet	I can identify and use devices safely that can be used to search the Internet. I can Identify when inappropriate content is accessed and act appropriately. I can safely search the internet. Recognise that a variety of devices can be used to connect a number of people. I can consider other people's feelings on the Internet.	Appropriate/inappropriate sites Cyber-bullying, Digital footprint, Keyword searching



Subject name Computing		Subject content Key Stage 2	!	Year 3	
National Curriculum	Topic	Sticky Knowledge	Skills		Vocabulary
design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve	Multimedia	Know how to use a graphics programme	I can acquire and store images from cameras for a purpose. I can use the print screen function to capture I can select certain areas of an image and resi invert the image.	an image.	Multimedia, Presentations, Alignment, Brush size, Repeats Reflections, Green screening Amend, Copy, Paste, Google pictures, Crop, Rotate, Invert,
 problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output use logical reasoning to explain 		Know how to create an animation	I can plan what they would like to happen in tanimation. I can take a series of pictures to form an anim I can move items within my animation to creaton playback. I can edit and improve my animation. I can use sound within my animation to enhance video/animation.	ation. ite movement	Resize, Playback, Merge, Trim Font, Size, Font style, Align text Slide transitions, Design Format background, Solid fill Gradient fill, Duplicate slides Animations (on PowerPoint)
how some simple algorithms work and to detect and correct errors in algorithms and programs	Σ	Know how to use a word- processing programme	I can get quicker at typing with both hands. I can use a variety of font sizes, styles and color can align text left, right and centre.	ours.	
understand computer networks, including the internet; how they can provide		Know how to capture and edit video	I can capture video for a purpose. I can choose which clips to keep and which to I can Add titles, credits and slide transitions. I can use sounds in my video to enhance it.	discard.	
multiple services, such as the World Wide Web, and the opportunities they offer for communication and		Know how to present information	I can create a title slide and choose a style. I can Insert a picture/text/graph from the Interpersonal files. I can store and retrieve data.	ernet or	
 use search technologies effectively, appreciate how results are selected and 	Programming	Know how to programme	I can navigate the scratch programming environment of the		Sequence instructions, Sequence debugging, Test + improve, Logo commands Sequence programming



•	ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that	Online	Know how to use the internet for research Know how to create an email	I can type in a URL to find a website. I can use a search engine to find a range of media, e.g. images, texts. I can talk about the reliability of information on the Internet e.g. the difference between fact and opinion (link to history and sources of evidence). I can log into an email account, open, create and send an email.	School network, Devices, Computer parts, Collaborate, Appropriate online, communication, Search tools Appropriate websites, Owner URL, Factual and opinions Open, create and send emails
	 accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact 	Data	Know how to collect and use data	I can choose information to put into a data table. I can recognise which information is suitable for their topic. I can design a questionnaire to collect information.	Questioning , Database, Construct, Contribute, Recording data, Data logger, Present data
•		E-Safety	Know how to be safe when using the internet	I can question the 'validity' of what they see on the internet. I can think before sending and comment on consequences of sending/posting. I can recognise online behaviours that would be unfair. I can make judgments in order to stay safe, whilst communicating with others online I can tell an adult if anything worries them online. I can Identify dangers when presented with scenarios, social networking profiles etc I can articulate examples of good and bad behaviour online.	E-safety rules, Secure passwords Report abuse button, Gaming, Blogs, Validity, Posting ,Online chat, Social networks/social networking eg - Facebook, Twitter, LinkedIn, YouTube, Pinterest, Instagram, TumbIr, Flickr.



Subject name Computing	Subject name Computing Subject content Key Stage 2		Year 4	
National Curriculum	Topic	Sticky Knowledge	Skills	Vocabulary
 design, write and debug programs that accomplish specific goals, including 		Know how to use a graphics programme	I can acquire, store and combine images from cameras or the internet for a purpose. I can edit pictures using a <u>range of tools</u> in a graphics program.	Creating + modifying, Specific purpose, Photo modifying Keyboard shortcuts, Bullet
controlling or simulating physical systems; solve problems by decomposing them into smaller parts		Know how to use a design programme	I can use internet-based software to create a 3D representation. I can use the tools available to design my own fit for purpose object. (using simple shapes)	points, Spell check, Constructive feedback, Graphics program (edit tools related to that programme)
 use sequence, selection, and repetition in programs; work with variables and 	Multimedia	Know how to use a word-processing programme	I can type at speed using both hands. I can use a variety function. (including changing font, text size, paragraphs, styles, colour etc	Special effects and transitions
various forms of input and output use logical reasoning to	Mu	Know how to capture and edit video and sound	I can capture video for a purpose. I can trim and arrange clips to convey meaning. I can add titles, credits, slide transitions, and special effects. I can capture and use sounds within the video to enhance it.	
explain how some simple algorithms work and to detect and correct errors in algorithms and programs understand computer		Know how to present information	I can change the layout of a slide. I can insert a picture/text/graph from the Internet or personal files. I can decide upon and use effective transitions.	
networks, including the	Programming	Know how to programme	I can navigate the scratch programming environment. I can create a background and a sprite for a game. I can add inputs to control my sprite. I can use conditional statements within the program to control the sprite .ifthen	Type + edit logo commands Sensors, Open-ended problems, Bugs in programs Complex programming, Conditional statements



communication and collaboration use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services)	Online	Know how to use the internet for research Know how to create an	I can type in a URL to find a website. I can add websites to a favourites list. I can use a search engine to find a range of media, e.g. images, texts. I can think of search terms to use linked with questions they wish to answer. I can talk about the reliability of information on the Internet . e.g. the difference between fact and opinion (link to history and sources of evidence). I can Log into an email account, open, create and send an email.	Different networks, Information collection, Reliability , Owners, Blog , Blogging, Content
on a range of digital devices to design and create a range of programs, systems		email Know how to blog	I can attach documents or pictures to an email and send. I can navigate to view their class blog. I can understand that it can be updated from a range of devices. I can comment on my class blog.	
and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	Data	Know how to collect and sort data	I can use a questionnaire to collect information. I can sort and organize information to use in other ways. I can create and search a branching database. I can create a database from information I have selected.	Database creation, Database searches, Inaccurate data, Branching database
use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	E-Safety	Know how to be safe when using the internet	I can question the 'validity' of what they see on the internet. I can use a browser address bar not just search box and shortcuts. I can think before sending and comment on consequences of sending/posting. I can recognise online behaviours that would be unfair. I can recognise social networking sites and social networking features built into other things. (such as online games and handheld games consoles) I can make judgments in order to stay safe, whilst communicating with others online. I can tell an adult if anything worries them online. I can Identify dangers when presented with scenarios, social networking profiles etc I can articulate examples of good and bad behaviour online.	E-safety rules , Secure passwords, Report abuse button, Gaming, Blogs, Brower address , Social networking features



S	Subject name Computing		ect content KS2	Year 5	
١	lational Curriculum	Topic	Sticky Knowledge	Skills	Vocabulary
•	design, write and debug programs that accomplish specific goals, including controlling or simulating		Know how to use a graphics programme	I can acquire, store and combine images from cameras or the internet for a purpose. I can edit pictures using a range of tools and previous knowledge in a graphics program for a specific purpose.	Online sharing, Multimedia effects, Multimedia modification, Transitions, Hyperlinks, Editing tools, Refining, Online sharing,
	physical systems; solve problems by decomposing them into smaller parts use sequence, selection,		Know how to use a word-processing programme	I can use both hands to type. I can use a variety of font sizes, styles and colours. I can copy and paste within specific text. I can save and retrieve documents.	Camera angles , Playback rate/speed
	and repetition in programs; work with variables and		Know how to collect sound recordings	I can collect audio from a variety of resources including own recordings and internet clips.	
	various forms of input and output	edia	Know how to create an animation	I can plan a multi-scene animation including characters, scenes, camera angles and special effects.	
•	use logical reasoning to explain how some simple algorithms work and to detect and correct errors in	Multimedia		I can adjust the number of photographs taken and the playback rate to improve the quality of the animation. I can publish their animation and use a movie editing package to edit/refine and add titles.	
•	algorithms and programs understand computer networks, including the		Know how to capture and edit video and sound	I can storyboard and capture videos for a purpose. I can plan for the use of special effects and transitions. I can insert music to enhance video. I can save my file.	
	internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for		Know how to present information	I can create a multi slide presentation within a group or with a partner. I can use transitions and animations to improve the quality of the presentation. I can Include sounds within my presentation. I can present to a large group or class using the notes made.	



•	communication and collaboration use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	Programming	Know how to programme	I can use infinite loops to control sprites. I can create and edit variables. I can use a range of conditional statements . I can design my own game including sprites and backgrounds . I can use conditional statements, loops and variables within my game. I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	Explore procedures ,Refine procedures, Variable, Hardware + software,, control, Change inputs, Different outputs, Articulate solutions, Commands
•	select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and	Online	Know how to use the internet for research Know how to create an email	I can type in a URL or use a range of search engines to find a website. I can add and use websites from a favourites list. I can use strategies to check the reliability of information (cross check with another source such as books). I can log into an email account, open, create and send an email. I can attach files to an email. I can download and save files from an email. I can email more than one person and reply to all.	Computing devices, Internet parts, Collaboration, Responsibility, Searching strategies, Webpages, Draft and post, Favourite list ,Book mark, Attachments
	presenting data and information		Know how to blog	I can register for a blog. I can create a new post, save it as a draft and publish it. I can embed photos and videos into my posts.	
	use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns	Data	Know how to collect and sort data	I can create data collection forms and enter data from these. I can understand how to check for and spot inaccurate data. I can sort and filter information. I can present my data.	Spreadsheets, Complex searches (and/or:), Problem solving, Present answers, Analyse, information, Question data, Interpret
	about content and contact	E-Safety	Know how to be safe when using the internet	I can judge what sort of privacy settings might be relevant to reducing different risks. I can judge when and when not to answer a question online. I can be a good online citizen and friend and understand what it means to be a good citizen and friend online. I can articulate what constitutes good behaviour online. I can use different sources to double check information found online. I can discuss scenarios involving online risk.	Responsible online, communication, Informed choices, Virus threats, Blogs, Messaging, Online citizen, Digital footprint



Subject name Computing		ect content Key Stage 2	Year 6	
National Curriculum	Topic	Knowledge	Skills	Vocabulary
 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs understand computer networks, including the 	Multimedia	Know how to modifying or improving digital photographic images using different techniques, tools or software Know how to use a design programme Know how to use a word-processing programme Know how to collect and edit sound recordings	I can acquire, store and combine images from cameras or the internet for a purpose. I can edit pictures using a range of tools and previous knowledge in a graphics program for a specific purpose. I can use internet-based software to create a 3D representation. I can use available tools to move, manipulate, change and modify my design .(using arrange of shapes, changing shapes, changing sizes etc) I can present my final design and product. I can use both hands to type and speed. I can copy and paste within specific texts. I can insect tables, graphs or pictures. I can use a range of functions to change and manipulate texts. I can use short cuts to copy and paste. I can create a multi-track recording using effects. I can edit and refine their work to improve outcomes.	Appropriate online tools, Audience, Atmosphere, Structure, Copyright, Information collection, HTML code, Storing, Design programme tools: move, cut, edit, manipulate, change, modify. Short cuts — Ctrl C Ctrl V, Speaker notes, Moving graphics
internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for		Know how to capture and edit video and sound	I can capture videos for a purpose. I can use of special effects and transitions to enhance my video. I can trim, arrange and edit audio levels to improve quality of their outcome. I can export my video.	
communication and collaboration use search technologies effectively, appreciate how results are selected and		Know how to present information	I can work independently to create a multi slide presentation that includes speakers notes. I can use transitions and animations to improve the quality of the presentation. I can Include sounds and moving graphics in the slides. I can present to a large group or class using the notes made.	



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	ranked, and be discerning in	ning	Know how to programme	I can use external triggers and infinite loops to control sprites.	Predicting outputs, Plan,
	evaluating digital content			I can create and edit variables.	program, test & review a
•	 select, use and combine a 			I can use conditional statements effectively.	program, Program writing,
	variety of software			I can design my own game including sprites, backgrounds, scoring	Control mimics + devices,
	(including internet services)			and/or timers.	Sensors, Measure input,
	on a range of digital devices	aп		I can use conditional statements, loops, variables and broadcast	Create variables, Link errors,
	to design and create a	gc		messages in the game.	Infinite loop
		Pro		I can ensure that the game finishes when a player wins or loses	
	range of programs, systems and content that			and ensure that the player knows they have won or lost.	
				I can evaluate the effectiveness of the game and debug as	
	accomplish given goals,			required.	
	including collecting,		Know how to use the	I can use advance search functions in Google.	Informed choices, Virus
l l	analysing, evaluating and		internet for research	I can understand websites such as Wikipedia are made by users	threats, Report abuse
	presenting data and information		miternet for research	(link to E-Safety) .	button, Responsibility ,
				I can use strategies to check the reliability of information (cross	Favourite list , Book mark,
•	use technology safely, respectfully and responsibly; recognise acceptable/unacceptable			check with another source such as books).	Attachments , Domain name
				I can use my knowledge of domain names to aid their judgment of	Blogging: appearance,
				the validity of websites.	theme, backgrounds,
		ine	Karan kanaka bilan		_
	behaviour; identify a range	Online	Know how to blog	I can register for a blog, select a URL and navigate to their blog	images. Publish, Hyperlinks,
	of ways to report concerns	ns		once it is created.	Blog content
	about content and contact			I can alter the theme and appearance of my blog, adding	
	assac sometic and contact			background images etc.	
				I can create a new post, save it as a draft and publish it.	
				I can embed photos, hyperlinks and videos into posts.	
				I can reorganise posts and remove posts I no longer want.	
				I can build up my blog content over the year.	



Know how to collect, sort and present data	I can create data collection forms and enter data accurately from these. I can know how to check for and spot inaccurate data. I can know which formulas to use when I want to change my spreadsheet model. I can make graphs from the calculations on my spreadsheet. I can sort and filter information. I can understand that changing the numerical data effects a calculation.	Generate, Process, Interpret Store, Present information, Plausibility, Appropriate data tool, Interrogate, Investigations
Know how to be safe when using the internet	I can present and answer questions about my data. I can judge and explain what sort of privacy settings might be relevant to reducing different risks. I can judge and explain when and when not to answer a question online. I can be a good online citizen and friend. I can articulate what constitutes good behaviour online across different media platforms. I can use different sources to double check information found online. I can discuss scenarios involving online risk using a range of different media platforms. I can find 'report' and 'flag' buttons in commonly used sites and name sources of help (childline, cybermentors etc). I can discuss and explain different scenarios involving online risk. I can state the source of information found on the Internet. I can act as a role model for younger pupils.	Responsible online, communication, Informed choices, Virus threats, Blogs, Messaging, Report and flag Help – ChildLine,, cybermentors, NSPCC, Digital footprint