

Key: O = Oracy skills. LT = Learning Technologies. PSE = Personal, social and emotional skills. MC = Metacognitive skills

COMPUTING End Points

Aspect	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1i) CONNECTING (e-Communication)								
a) Writing e-mails			To recognise e-mail addresses	To contribute to e-mails written as a class.	To write personal e-mails to other people and to groups of people. To register, set up and post to a personal blog.	To send and receive files via e-mail, and use CC, BC.	To create and edit contact lists.	
b) Blogging			To navigate to view a class blog.	To post and comment on class blogs.	To confidently embed photos, hyperlinks and videos into posts	To like/follow other blogs and maintain their blog over a period of time by posting, deleting and monitoring.	To confidently call and receive calls using a video conference software	
c) Video Conferencing			To understand that videos can be live or recorded.	To begin to use webcams for class video conferencing.	To use a class video conferencing account to talk to another class.			
d) Evaluating forms of communication	Be able to talk about what they have done on the website	Be able to recall information from a website	To understand that the internet can be used to communicate.	To be able to simply explain why one form of communicating is best for a specific task.	To begin to independently select a form of electronic communication for their need.	To evaluate the effectiveness of using different types of electronic communication for different purposes		
1ii) CONNECTING (Research and Browsing)								
a) Using an internet browser		Begin to navigate around a website	To explore pre-loaded websites using an internet browser, and talk about what they saw.	To use the address bar and favourites bar to access pre-selected websites.	To add websites to favourites.	To confidently use appropriate tools to save and retrieve accessed Information.	To temporarily allow useful pop-ups from an useful website when appropriate.	

b) Searching online

			To use a search engine to find a range of media.	To consider the effectiveness of their search terms, refine where necessary and improve with advanced search functions.
		To complete a search with given search terms.	To complete a search for a given topic.	To think of search terms to find a range of media to answer a specific question

c) Evaluating the source

				To talk about the reliability of information on the internet and begin to independently decide when they need to use the internet to help with their tasks.	To understand websites such as Wikipedia are made by users and demonstrate knowledge that it is illegal to download copyrighted material without express written permission, from the copyright holder.	To use strategies to check the reliability of information, e.g. cross checking with books or other websites
Be able to talk about what they have done on the website	Be able to recall information from a website	To explain which sites they like exploring.	To begin to evaluate web sites by giving opinions about preferred or most useful sites.	To state the source of information found on the internet		To use their knowledge of domain names to aid their judgment of the validity of websites.

1iii) CONNECTING (Data Storage and Transfer)

Storing and transferring data

			To understand that files may be served locally, but not on one single device (servers) and know how to save and retrieve from a local server.	To upload/download a file to the cloud on different devices.
		To understand that a locally saved file is only accessible on the same device.	To use portable hardware (USB) to transfer files to another device.	To understand about syncing files using cloud computing folders.
			To understand files may be saved remotely in 'clouds' and that a file size depends on how much information it holds.	To understand how simple networks are

2) DATA

a) Collecting	Place and/or sort objects into lists or simple tables	Create a branching database	Design a questionnaire	Choose information to put into a table	Create data collection forms	Know a range of formulas to use in a spreadsheet
b) Presenting	Put data into a pictogram	Make a simple diagram to sort information	Sort and organise data in different ways	Answer simple questions about a database	Understand that changing the numerical data has an affect	Compare a variety of graphs and evaluate their effectiveness
c) Interpreting	Discuss what a pictogram shows	Answer simple questions about a pictogram.	Answer simple questions about a database	Create a graph from previously collected data	Check for and spot inaccurate data	

3 i) MULTIMEDIA (PRESENTING)

	Use the keyboard to type random letters and characters	Use the keyboard with more control, using both letter and number keys. Use backspace and shift.				
	Type in own name with support	Type in own name using a capital letter	Word process short text, using the letter keys and the other commonly used keys.	Start to use two hands when typing.	Get quicker at typing using both hands	Be able to touch type many keys without looking at the keyboard.
a) Typing and curser proficiency	Develop simple movements of the mouse or tracker pad.	Develop a more accurate movement with the mouse or tracker pad.		Confidently change font formatting and choose text alignment. Use cut, copy and paste to refine and re-order content.	Develop consistency across a document, using the same styles of font, colour, size for headings, body text, etc.	Become proficient at touch typing.
b) Text Formatting		Use delete and backspace buttons to correct mistakes	Highlight a word or phrase using the mouse.			
c) Presentation	Amend a pre-prepared presentation	Create simple presentations for different purposes using templates for support.	Make effective use of transitions and animations in presentations	Create a range of hyperlinks to produce a non-linear presentation.	Create an outline plan for a non-linear presentation; producing a diagram to show how pages link.	

d) Tools	Click on words/pictures to create labels	Click on words to make simple sentences	Select images to add to work.	Combine text with video, pictures and audio	Use key layout and design features and change page size and orientation. Review their work with spell check.	Use review tools to check and improve their own work and to collaborate and review each other's work.	Confidently create and edit tables and drawings.
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3 ii) MULTIMEDIA (GRAPHICS)

a) Creating and capturing	Click and drag to draw	Click and drag with more control to draw/create a scene that is recognisable	Use various graphics tools including brushes, pens, lines, fill, spray and stamps.	Use shape, line and colour to communicate a specific idea or artistic style through various tools.	Independently upload images and movies from digital cameras and other devices to a computer and save in a relevant location.	Independently capture, store and retrieve digital images for a purpose. Discuss and evaluate the quality and usefulness of their own and others' captured images and make decisions whether to keep, delete or change them.	Use an object based graphics package to design and develop a plan in order to find a solution to a specific problem.
	Make simple choices on a paint program	Use various graphics tools including flood fill, spray, can	Use a range of digital devices to capture and save images.	Upload images or movies from cameras and other digital devices to a computer, with support if needed.	Capture screen images using different tools		
	Take a picture with a digital camera	Take a picture with more accuracy using a digital camera			Resize, rotate an image.		
b) Editing		Look at photos they have taken	Use a graphics package to paint on top of a photograph.	Begin to make changes to images using basic tools in	Edit pictures using various tools in paint or photo-manipulation software.		Use layers to paste part of one image on top of another.

3 iii) MULTIMEDIA (VIDEO)

a) Capturing for a purpose		Capture a video with support.	Capture video.	Discuss which videos to keep and why.	Capture video for a purpose. Trim and arrange clips to convey meaning.	Storyboard and capture videos for a purpose. Trim, arrange and edit audio levels of video to improve the quality of their outcome.	Discuss the quality of videos and chose which to keep and which to re-shoot. Transfer footage to iMacs for more advanced editing.
b) Editing				Arrange clips to make a short film that conveys meaning.	Add a sound file to their movie.		Use greenscreen tools effectively.

						Use stop-go animation software with an external camera to shoot the animation frames.	Plan a multi-scene animation including characters, scenes, camera angles and special effects.
						Edit/improve their animation.	
					Storyboard, then use captured images to create a short animated sequence which communicates a specific idea.	Publish their animation and use a movie editing package to edit/refine and add titles.	Adjust the number of photographs taken and the playback rate to improve the quality of the animation.
Animating			Create a sequence of images to form a short animation.	Create animation using a puppet software.			

4) PROGRAMMING

				Plan a storyboard for a Sprite's movements and code accordingly.	Plan an outcome that is realistically achievable with the commands available. Create separate codes for separate inputs and sprites.	Plan a set of codes that will create a game for a specific audience.	Take inspiration from published software and work out how to code similar features into own work.
a) Code for purpose	Enter a code one instruction at a time.	Enter a code with multiple instructions.	Write a full code before playing.				
		Use simple directional commands to move a robot or sprite.	Use simple drag and drop commands to move a sprite.	Edit parametres within a drag and drop command.	Understand that there are coding languages other than drag and drop.	Create linked codes for numerous Sprites and backgrounds.	Use broadcast messages to link codes for different Sprites and backgrounds.
b) Commands	Use oral instructions to move an object.						
			Begin to use loop and Conditional functions.	Confidently use loop and Conditional functions. Correct a simple directional code that has an error in it.	Use a wider range of loop and conditional functions.	Use conditional functions to add texts and sound.	Use variables to keep a score and a timer.
c) Functions							
		Notice when a code has failed to reach its objective.	Discuss and explore what will happen when a code is run.	Discuss how to improve or change their code.	Amend a pre-written code to achieve a set purpose. Regularly test and amend their code.	Evaluate a completed code (their own and others) and explain what they could change to improve it.	Receive feedback from users and act upon the feedback to improve their software.
d) Evaluate and amend	Explain if the code achieved its purpose.						

KEY VOCABULARY

set up and used.