



Windermere Primary School

Progression map: Computing

Intent: The computing curriculum has undergone enormous changes in recent years. At Windermere we recognise the importance of developing an enquiring IT literate mind that will be able to take on the digital challenges of a workplace in ten to fifteen years' time, which we can barely imagine. Our curriculum aims to provide the pupils with the problem solving skills to be digitally literate across a wide range of devices and software.

Autumn	EYFS	KS1		KS2			
	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Skills	<p><u>Computing systems and networks</u> Explore/play with different pieces of technology- e.g. boxers, novis Incorporate technology into imaginative play- in role play pretend to use a keyboard Name some types of technology in school Use a mouse to select and drag-use</p>	<p><u>Computing systems and networks- Technology around us</u> Choose a piece of technology to do a job Recognise that some technology can be used in different ways Identify the main parts of a computer Use a mouse in different ways Use a keyboard to type Use the keyboard to edit text Show how to use technology safely</p>	<p><u>Computing systems and networks- Information technology around us</u> Describe some uses of computers Identify information technology in school Identify information technology beyond school Show how to use information technology safely <u>Creating media- digital photography</u> Capture a digital image Take photographs in both landscape and portrait format View photographs on a digital device Decide which photographs to keep Hold the camera still to take a clear photograph</p>	<p><u>Computing systems and networks- connecting computers</u> Identify input and output devices Explain that a computer system accepts an input and processes it to produce an output Explain how a computer network can be used to share information Explain the role of a switch, server and wireless access</p>	<p><u>Computing systems and networks- the Internet</u> <u>Creating media- photo editing</u> Recognise that digital images can be manipulated Recognise that digital images can be changed for different purposes Choose the most appropriate tool for a particular purpose Consider the impact of</p>	<p><u>Computing systems and networks- systems and searching</u> Describe the input and output of a search engine Demonstrate that different search terms produce different results Evaluate the results of search terms <u>Creating media- introduction to vector graphics</u> Add an object to a vector drawing Select one object or choices</p>	<p><u>Computing systems and networks - Communication and collaboration</u> Outline methods of communicating and collaborating using the internet Choose methods of internet communication and collaboration for given purposes Evaluate different methods of online communication</p>

	<p>paint app on ipad Find specific letters and numbers on a keyboard- e.g. type name</p> <p><u>Creating media- digital photography</u> Experiment using a robust camera to capture an image</p> <p>Use Barefoot-awesome autumn winter warmers (also connects with grouping data Summer)</p>	<p><u>Creating media- digital painting</u> Create a picture using freehand tools Use shape and line tools when precision is needed Use a range of paint colours Use the fill tool to colour an enclosed area Use the undo button to correct a mistake Combine a range of tools to create a piece of artwork</p>	<p>Use zoom to change the composition of a photograph Consider lighting before taking a photograph Use filters to edit the appearance of a photograph Improve a photograph by retaking it</p>	<p>point in a network Identify network devices around me Explain how networks can be connected to other networks</p> <p><u>Creating media- desktop publishing</u> Show that page orientation can be changed Add text to a placeholder Edit text in a placeholder Choose fonts and apply effects to text Organise text and image placeholders in a page layout Add and remove images to and from placeholders Move resize and rotate images Review a document</p>	<p>changes made on the quality of the image</p>	<p>made multiple objects Delete objects Move objects between the layers of a drawing Group and ungroup selected objects Duplicate objects using copy and paste Modify objects Reposition objects Combine options to achieve a desired effect Create a vector drawing for a given purpose</p>	<p>and collaboration Decide what you should and should not share online</p> <p><u>Creating media – 3D Modelling</u> Position 3D shapes relative to one another Use digital tools to modify 3D objects Combine objects to create a 3D digital artefact Use digital tools to accurately size 3D objects Construct a 3D model which reflects a real world object</p>
Knowledge	<u>Computing systems and networks</u>	<u>Computing systems and networks-</u>	<u>Computing systems and networks- Information technology around us</u>	<u>Computing systems and networks-</u>	<u>Computing systems and</u>	<u>Computing systems and networks-</u>	<u>Computing systems and networks -</u>

	<p>Identify and name some forms of technology in the classroom Identify a keyboard and know it can be used to type letters and numbers Know that a mouse and trackpad can be used to click and drag- paint on ipad Know that to use a computer you need to log in and log out</p> <p><u>Creating media- digital photography</u></p> <p>Understand that a camera can be used to capture images</p>	<p><u>Technology around us</u></p> <p>Explain that technology is something that can help us Identify examples of technology Explain how examples of technology help us Recognise that a computer is an example of technology Recognise that choices are made when using technology Explain why rules are needed when using technology</p> <p><u>Creating media- digital painting</u></p> <p>Explain what different freehand tools do Recognise computers can be used to create art Recognise a tool can be adjusted to suit my need</p>	<p>Recognise different types of computers used in school Identify that a computer is a part of information technology Recognise the features of information technology talk about uses of information technology Say how rules for using information technology can help us Explain how information technology benefits us Recognise that choices are made when using information technology</p> <p><u>Creating media- digital photography</u></p> <p>Recognise that some digital devices can capture images using a camera Talk about how to take a photograph Make choices when composing my photograph Recognise that photographs can be saved and viewed later Recognise features of 'good' photographs</p>	<p><u>connecting computers</u></p> <p>Describe what an input is Explain that a process acts on the inputs Explain that an output is produced by the process Identify how changing the process can affect the output Recognise that a digital device is made up of several parts Explain how computer systems can change the way that we work Recognise that computers can be connected together Identify how devices in a network are connected to one another Recognise that a network is made</p>	<p><u>networks- the Internet</u></p> <p>Describe how networks connect to other networks Outline how information can be shared via the World Wide Web Describe how to access the World Wide Web Describe the types of content/media that can be added, created, and shared on the World Wide Web Explain how the content of the World Wide Web is created, owned, and shared by people Recognise that the World Wide Web is part of the internet Explain that the global interconnection</p>	<p><u>systems and searching</u></p> <p>Recognise that a system is a set of interconnected parts which work together Explain that computers can be connected together to form IT systems Identify that data can be transferred between IT systems Recognise inputs, processes, and outputs in large IT systems Describe the role of a particular IT system in their lives Relate that search engines are examples of large IT systems explain why search engines Create indices, and that they are different for</p>	<p><u>Communication and collaboration</u></p> <p>Recognise that data is transferred across networks using agreed protocols (methods) Recognise that connections between computers allow access to shared stored files Explain that data is transferred in packets Recognise computers connected to the internet allow people in different places to work together Discuss the opportunities that technology offers for communication and collaboration Explain which types of media can be shared</p>
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				<p>different purposes Recognise that DTP pages can be structured with placeholders Recognise how different font styles and effects are used for particular purposes Consider the benefits of using a DTP application</p>	<p>Change the composition of a digital image by rotating and flipping Change the composition of a digital image by cropping Adjust colours of a digital image Apply filters to a digital image Apply effects to a digital image Use an application to change part of a digital image Select part of a digital image Use clone, copy, and paste to change the composition of a digital image Use cloning to retouch a digital image Use an application to add to the composition of a digital image Add text to a digital image</p>	<p><u>Creating media-introduction to vector graphics</u> Identify that a vector drawing comprises separate objects Recognise that each object in a drawing is in its own layer Recognise that vector images can be scaled without impact on quality Recognise that objects can be modified in groups Explain how alignment and size guides can help create a more consistent drawing Consider the impact of To select one object or choices made</p>	
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<p>Vocabulary</p>	<p><u>Computing systems and networks</u> computer, keyboard, mouse, trackpad, type <u>Creating media- digital photography</u> camera, photograph, image</p>	<p><u>Computing systems and networks- Technology around us</u> technology, Computer, mouse, trackpad, keyboard, screen double-click, typing <u>Creating media-digital painting</u> paint program, tool, paintbrush, erase, fill, undo, Piet Mondrian, primary colours, shape tools, line tool, Henri Matisse, shape tool, Wassily Kandinsky, tools, feelings, colour, brush style, Georges Seurat, pointillism, brush size, pictures, painting, computers, like, prefer, dislike</p>	<p><u>Computing systems and networks- Information technology around us</u> Information technology (IT), computer, barcode, scanner/scan <u>Creating media- digital photography</u> device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light sources, flash, background editing, filter, format, lighting, focus, filter</p>	<p><u>Computing systems and networks- connecting computers</u> digital device, input, process, output, program, digital, non-digital, connection, network, network switch, server, wireless access point, network cables, network sockets Creating media- desktop publishing text, images, advantages, disadvantages, communicate font, font style, communicate, template, landscape, portrait, orientation, placeholder, template, layout, content, desktop publishing, copy, paste, layout,</p>	<p><u>Computing systems and networks- the Internet</u> Internet, network, router, network security, network switch, server, wireless access point (WAP), router, website, web page, web address, router, routing, web browser, World Wide Web, internet, content, website, web page, links, files, use, content, download, sharing, ownership, permission, information, sharing, accurate, honest, content, adverts Creating media- photo editing image, edit, digital, crop, rotate, undo,</p>	<p><u>Computing systems and networks- systems and searching</u> system, connection, digital, input, process, output, search, search engine, refine, index, crawler, bot, ordering, ranking, links, algorithm, search engine optimisation (SEO), web crawler, content creator, selection, ranking <u>Creating media- introduction to vector graphics</u> Vector, drawing tools, object, toolbar, move, resize, colour, rotate, duplicate/copy, zoom, select, rotate, align, modify, layers, order, paste, group, ungroup, reuse, reflection</p>	<p><u>Computing systems and networks - Communication and collaboration</u> communication, protocol, data, address, Internet Protocol (IP) address, Domain Name Server (DNS), packet, header, data payload, chat, explore, slide deck, reuse, remix, collaboration, communication, internet, public, private, one-way, two-way, one-to-one, one-to-many <u>Creating media – 3D Modelling</u> 2D, 3D, shapes, select, move, perspective, view, handles, resize, lift, lower, recolour, rotate, duplicate, group,</p>
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				purpose, benefits	save, adjustments, effects, colours, hue, saturation, sepia, vignette, retouch, clone, select, copy, paste, combine, made up, real, composite, cut, alter, background, foreground, Rotate, crop, zoom, clone, select, font		cylinder, placeholder, hollow, 3D shapes, choose, combine, construct, evaluate, modify
Key Questions	<u>Computing systems and networks</u> What is a keyboard for? What is a mouse for? <u>Creating media- digital photography</u> What is a camera for? How can I change my images?	<u>Computing systems and networks- Technology around us</u> What is technology? What are the main parts of a computer? What can I use a mouse and a keyboard for? What rules will keep us safe	<u>Computing systems and networks- Information technology around us</u> What is IT? What are the uses of information technology in school? How can information technology help us? How can we use information technology safely? <u>Creating media- digital photography</u> How can I take a photo with a digital device?	<u>Computing systems and networks- connecting computers</u> How does a digital device work? What parts make up a digital device? How do digital devices help us? How am I connected?	<u>Computing systems and networks- the Internet</u> <u>Creating media- photo editing</u>	<u>Computing systems and networks- systems and searching</u> <u>Creating media- introduction to vector drawing</u> How can we paint using computer? How can alignment grids and resize handles be used	<u>Computing systems and networks - Communication and collaboration</u>

		<p>using technology?</p> <p><u>Creating media-digital painting</u></p> <p>How can we paint using computers?</p> <p>How can we make marks using different tools?</p> <p>How can I make paintings in the style of an artist using different tools?</p>	<p>What choices do I need to make when taking a photo?</p> <p>What makes a good photograph?</p> <p>How can my images be improved?</p>	<p>How are computers connected?</p> <p>What does our school network look like?</p> <p><u>Creating media-desktop publishing</u></p> <p>Why use desktop publishing?</p> <p>What are the benefits of desktop publishing?</p>		<p>to improve consistency?</p> <p>How can vector drawings be compared to freehand paint drawings?</p> <p>How can objects be modified to create a new image?</p>	
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