



Knowledge Organiser Computing overview



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Year 3	Knowledge taught in unit	Year 4	Knowledge taught in unit	Year 5	Knowledge taught in unit	Year 6	Knowledge taught in unit
	<u>E safety</u>		<u>E safety</u>		<u>E safety</u>		<u>E safety</u>
	<p>I can create a safe password.</p> <p>I know at least two methods for keeping passwords safe.</p> <p>I am beginning to understand how the Internet can be used for effective communication.</p> <p>I can consider the truth of the content of websites.</p> <p>I know age restrictions symbols on digital media and devices.</p>		<p>I know how to protect myself from online identity theft.</p> <p>I know that information put online leaves a digital footprint or trail which can aid identity theft.</p> <p>I can identify risks and benefits of installing software including apps.</p> <p>I know that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism.</p> <p>I can identify appropriate behaviour when participating or contributing to collaborative online projects for learning.</p> <p>I know the positive and negative influences of technology on health and the environment.</p> <p>I know the importance of balancing game and screen time with other parts of their lives.</p>		<p>I can review sources of support when using technology and know my responsibility to one another when considering my online behaviour.</p> <p>I know how to maintain secure passwords.</p> <p>I understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this.</p> <p>I know the difference between appropriate and inappropriate text, photographs and videos and what the impact is of sharing these online.</p> <p>I know how to reference sources in their work.</p> <p>I can search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information.</p> <p>I can ensure reliability through using different methods of communication.</p>		<p>I can identify benefits and risks of mobile devices broadcasting the location of the user/device.</p> <p>I can identify secure sites by looking for privacy seals of approval.</p> <p>I know the benefits and risks of giving personal information.</p> <p>I can review the meaning of a digital footprint.</p> <p>I have a clear understanding of appropriate online behaviour.</p> <p>I know how information online can persist.</p> <p>I understand the importance of balancing game and screen time with other parts of their lives.</p> <p>I can identify the positive and negative influences of technology on health and the environment.</p>

	<u>Computer science:</u> Magic carpet		<u>Information technology</u> Animation Making music		<u>Information technology</u> Spreadsheets (2 calculate)		<u>Computer Science:</u> Basic procedures in shape/ variables
	<p>I know what a sprite is and how to move it.</p> <p>I can decompose a coded programme and know different coloured blocks control different aspects of the programme.</p> <p>I can create a simple sequence.</p> <p>I know how to debug simple code.</p>		<p><u>Animation about a Viking battle linked to topic unit</u> I can create a simple animation frame</p> <p>I can Children can use the Onion Skin tool in 2animate to create an animated image</p> <p>I know what ‘stop motion’ animation is and how it is created.</p> <p><u>Making music:</u> I know the terms Pulse, Rhythm, Tempo, Pitch and Texture</p> <p>I understand and can start to experiment with rhythm and tempo.</p> <p>I can create a melodic phrase</p> <p>I can compose a simple piece of electronic music.</p>		<p>I can formulae within a spreadsheet to convert measurements of length and distance.</p> <p>I can use the count tool to answer hypotheses about common letters in use.</p> <p>I can use a spreadsheet to model a reallife problem.</p> <p>I can use formulae to calculate area and perimeter of shapes.</p> <p>I can create formulae that use text variables.</p> <p>I can use a spreadsheet to help plan a school cake sale.</p>		<p>I can define what a procedure and a variable is.</p> <p>I can modify pre-created code to investigate how changing the code effects the outcome.</p> <p>I can use the variables blocks to draw a shape.</p> <p>I can create a new block.</p>
	<u>Computer Science</u> Scratch Persuasive character conversations		<u>Computer science</u> Ladybug munch		<u>Information technology:</u> Word processing		<u>Information technology:</u> Networks
	<p>I can delay speech by using the ‘wait’ function.</p> <p>I understand that each sprite needs a separate piece of code in order to control the speech.</p> <p>Be able to use purple blocks so that the character is speaking.</p> <p>I can add customised speech to each block.</p>		<p>I can identify an everyday output in everyday life and in code.</p> <p>I understand which blocks are used programme a character to move around the screen using the space bar and arrows to change its direction.</p> <p>I can programme objects to ‘wait’ to disappear until the character touches them.</p>		<p>I can add and edit images to a word document</p> <p>I know how to use word wrap with images and text</p> <p>I can change the look of text within a document</p> <p>I can add features to a document to enhance its look and usability</p>		<p>I know about what the Internet consists of.</p> <p>I can find out what a LAN and a WAN are.</p> <p>I know how the Internet is accessed in school</p> <p>I can research and find out about the age of the Internet.</p>

	<p>I can de-bug simple code</p> <p>I understand that timing effects the success of the conversation between multiple sprites.</p>		<p>I can change a costume</p> <p>I can debug a multi-step sequence. <i>Extension: I can programme a character to move around the screen to collect objects.</i></p>		<p>I can use tables within MS Word to present information</p> <p>I can introduce children to templates</p> <p>I can consider page layout including heading and columns</p>		<p>I can think about what the future might hold</p>
	<p>Information technology: Touch typing Spreadsheets</p>		<p>Information technology Effective searching Hardware Investigators</p>		<p>Computer science Making choices Wizards choice</p>		<p>Computer science Walker one (gaming)</p>
	<p><i>Touch typing:</i></p> <p>I can sit correctly at the keyboard.</p> <p>I can use the home, top and bottom keys correctly.</p> <p>I can start to type with my left hand.</p> <p>I can start to type with my right hand.</p> <p><i>Spreadsheets:</i></p> <p>I can describe the location of a piece of data using numbers and letters</p> <p>I can input data into a pre-populated spreadsheet.</p> <p>I can use the more than and less than tool to compare data inputted into the table.</p>		<p>Effective searching:</p> <p>I can locate information on the search results page.</p> <p>I can use key words to search for an answer to a question</p> <p>I can determine whether a piece of information is reliable</p> <p>Hardware investigators:</p> <p>I know the main components that make up the parts of a computer</p> <p>I can recall 3 components and describe their uses.</p>		<p>I can use 'if' selection blocks to ask a question</p> <p>I can use 'if, else' selection blocks to create a two answer question</p> <p>I can make small modifications to sprites to change how the sprite responds to questions.</p> <p>I can de-bug my programming individually</p>		<p>I can apply knowledge of variables into a game.</p> <p>I can predict what complicated code will do from a multi-choice list by reading the code carefully.</p> <p>I can make modifications to the speed by changing the variables.</p> <p>I can create another element to the game by building on what has already been programmed and using this to scaffold the new code.</p> <p>I can evaluate and communicate with my partner effectively when de-bugging and assessing the success of modifications and new elements.</p>
	<p>Information technology: PowerPoint (Using Microsoft PowerPoint)</p>		<p>Computer science: Toy giveaway Helicopter game</p>		<p>Information technology: Game creator</p>		<p>Information technology: Spreadsheets (on excel)</p>

	<p>I can understand the uses of PowerPoint.</p> <p>I can create a page in a presentation.</p> <p>I can add media to a presentation.</p> <p>To add animations to a presentation.</p> <p>I can use the skills learnt to design and create an engaging presentation about Boudicca's revolt.</p>		<p>I can act out and define what a count-controlled loop is.</p> <p>I can recognise a count-controlled loop.</p> <p>I know the difference between a count-controlled loop and a forever loop.</p> <p>I can make small modifications to sprites to change the speed they are travelling.</p> <p>I can plan an effective game and create loops for multiple sprites.</p> <p>I can de-bug with a partner effectively.</p>		<p>I can plan a game</p> <p>I can design and create the game environment</p> <p>I can design and create the game quest</p> <p>I know how to finish and share the game</p> <p>I can self and peer evaluate different games</p>		<p>I know what a spreadsheet looks like.</p> <p>I can navigate and enter data into cells.</p> <p>I can introduce some basic data formulae in Excel for percentages, averages and max and min numbers.</p> <p>I can demonstrate how the use of Excel can save time and effort when performing calculations.</p> <p>I can use a spreadsheet to model a real-life situation.</p> <p>I can demonstrate how Excel can make complex data clear by manipulating the way it is presented. To create a variety of graphs in Excel.</p> <p>I can apply spreadsheet skills to solving problems.</p>
	<p align="center"><u>Computer Science</u> Music Machine</p>		<p align="center"><u>Information technology</u> Spreadsheets (Using 2calculate)</p>		<p align="center"><u>Computer science</u> Cheese crush</p>		<p align="center"><u>Information technology</u> Quizzing</p>
	<p>I can create a simple sequence using code inputs.</p> <p>I can increase and decrease the time my note plays for.</p> <p>I can use the repeated loop block to play the sounds again.</p> <p>I can import a sound.</p> <p>I can evaluate my work by answering questions to improve next time.</p>		<p>I can add a simple formula to a cell to automatically make a calculation</p> <p>I can use a pre-populated data in a spreadsheet to create a line graph.</p>		<p>I know what condition-switches between- actions means.</p> <p>I can programme keys on a keyboard to move the sprite in a moving game using loops and selection blocks.</p> <p>I can modify two sprites with different roles.</p>		<p>I can create a picture-based quiz for young children.</p> <p>I know how to use the question types within 2Quiz.</p> <p>I can explore the grammar quizzes.</p> <p>I can make a quiz that requires the player to search a database.</p> <p>I can make a survey and analyse the responses.</p>

