

		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Exchanging and Sharing Information	<b>Language /Text</b>	<p>Move words into the correct positions. Print out work unaided. Assemble meaningful sentences. Use a word bank to create simple sentences. Enter single letters from a keyboard to write words and sentences. Explain meaning from sounds, pictures and text.</p> <p>Know that computers can use icons to provide information and instructions.</p>	<p>Enter and correct text. Know when and how to use the SPACE BAR. Know when and how to use the RETURN / ENTER key. Move words down the screen. Create sentences, save and edit them later. Correct and edit pictures using appropriate tools like UNDO. Save work in text form.</p>	<p>Alter font type, size and colour for emphasis and effect. Amend text and save changes. Use the shift key to type characters, such as question marks. Amend text using the correct key combinations. Read and respond to e-mails. Send annotated replies to e-mails. Send e-mails. Attach files to e-mails.</p>	<p>Use font sizes and effects appropriately. Use cut and paste to organise and reorganise text on screen e.g. bullet points. Edit text using delete, insert and overwrite as appropriate. Know how to use a spellcheck.</p>	<p>Use a desk top publishing package or multimedia package to create presentations for particular audiences. Use the understanding of the editing tools of a word-processor to write different versions and genres of texts. Use knowledge of text marking to extract key points from texts. Use images from a scanner or digital camera in projects.</p>	<p>Evaluate a CDROM page or Internet home page and recognise the features of good page design. Create sample screens and link them in different ways e.g. linear, branching structures, web-like structures. Design pages and links which present the user with clear information. Use email to contact others to share information and ideas.</p>
	<b>Graphics and sound</b>	<p>Move pictures into the correct positions. Use a painting program to create a representation and simple patterns Select and add stamps or clipart to a picture. Record and play sounds.</p>	<p>Select and use appropriate tools to create pictures and patterns. Control the pen and then flood fill pictures. Save work.</p>	<p>Combine text and graphics. Create and amend tunes using compositional software.</p>	<p>Create repeating patterns using the stamps and/or copy tool. Use a variety of brush sizes and effects to create pictures. Select areas, copy and resize them. Use the symmetry tool to create patterns. Use a variety of materials, created on and away from the computer; and use them to make a final image. Use sound effects and music with text.</p>	<p>Understand the limitations of paint packages for modelling. Use object based graphics packages to manipulate shapes, move, rotate, resize. Create objects using an object based graphics package. Create multimedia presentations.</p>	<p>Use a scanner or digital camera to create images for use in design. Create a page of sounds which are activated by appropriately named and positioned buttons.</p>
Finding Things Out	<b>Research</b>	<p>Know that information is all around us in a variety of forms.</p>	<p>Use menus to locate information on a CD-ROM. Use an index to locate information. Use key words to locate information. Use hot links, hyperlinks to search for information on CD-ROM and internet. Use a binary database to answer questions. Use a graphing program to answer questions. Use a database to answer questions.</p>	<p>Use a database to generate bar charts and interpret data. Use the database to answer simple questions by sorting a field. Use the database to answer simple questions by using search criteria.</p>	<p>Search a branching database to identify objects.</p>	<p>In searches use AND, OR and NOT e.g. search for 'Birmingham AND NOT USA'. Use 'more than, less than and including' in searches. Use the Internet to find information using keywords and search engines.</p>	<p>Use the Internet and CDROMs to find resources which can be edited for use in projects. Use a favourites list to find information Print pages from the Internet. Use more precise search techniques to find information e.g. AND or quotation marks. Skim and select information. Use/create hyperlinks to find information Make my own favourites list. Enter a web address (URL) to find a web site. Copy and paste from the Internet. Acknowledge the source of information and understand issues of copyright. Use email to contact others to share information and ideas.</p>
	<b>Working With Data</b>	<p>Use key words to describe objects (My World, Word bank with text program). Use a pictogram to answer simple questions. Enter data into a graphing package to create a pictogram and use it to find answers to simple questions. Present verbally what has been learnt from a pictogram.</p>	<p>Know that there are different programs for collecting data. Know that there are different kinds of questions so we need to use different kinds of information programs to find our answers.</p>	<p>Add a record to a file in a computer database.</p>	<p>Create a series of yes/no questions to identify objects. Produce a tree diagram to identify objects. Create a branching database which identifies objects uniquely. Design questionnaires which match the structure of the database. Produce and explain the meaning and purpose of pie charts. Produce and explain the meaning and purpose of line graphs. Produce and use bar charts, pie charts and line graphs appropriately.</p>	<p>Use graphs to provide supporting evidence for their conclusions about relationships. Identify some of the implications of incorrect data. Identify incorrect and implausible data. Identify an incorrect point on a line graph. Enter data into cells. Enter data and formulae into cells, modify the data, make predictions of changes and check results. Create and use a spreadsheet to produce costings which are within budget. Use 'SUM'.</p>	<p>Identify and enter the correct formulae into cells, modify the data, make predictions of changes and check them. Copy formulae to create tables of results. Create graphs from spreadsheets. Create and use a spreadsheet to answer a 'What if .....?' mathematical investigation.</p>

Developing Ideas and Making Things Happen	<b>Making Things Happen (Control and sensing)</b>	<p>Put instructions in the correct sequence to achieve the correct results.</p> <p>Give instructions in a common language.</p> <p>Write a sequence of instructions for others to carry out.</p> <p>Write instructions in an agreed format using standardised unit lengths.</p> <p>Predict the outcome of a set of instructions and test the results.</p> <p>Write sets of instructions and interpret them correctly and make and test predictions.</p> <p>Use a cassette recorder to collect and store information as sound.</p> <p>Make a toy or resource move in a particular way/direction/task.</p>	<p>Enter single commands to control a floor turtle and predict the outcome.</p> <p>Enter a sequence of commands to control a floor turtle and predict the outcome.</p> <p>Programme the floor turtle to repeat instructions.</p> <p>Solve a problem and explain to others how to use the 'tools' or 'keys'.</p> <p>Work with others to make decisions and solve a problem.</p> <p>Using Roamer or similar, plan and carry out a simple 'journey' using the language and rules of Logo.</p> <p>Debug programs by working systematically through coding (instructions) to find the mistake.</p>	<p>Locate and record sounds, compare ways of recording and storing sounds.</p> <p>Understand how musical phrases can be organised and re-organised using icons.</p> <p>Use ICT to create, organise and reorganise sounds.</p> <p>Use a range of online coding programmes to program tasks and specific goals (move a fish etc).</p> <p>Use a control interface to make inputs have an effect on outputs.</p> <p>Detect problems in programs and coding, and debug them so they can run through successfully.</p> <p>Use sequences, repetition in programs to achieve a desired result.</p>	<p>Compare the language of Logo using a floor turtle and a screen turtle.</p> <p>Produce two shapes on screen and learn to move the screen turtle using PENUP and PENDOWN.</p> <p><b>Use textease turtle to create tasks and problems for each other to solve.</b></p>	<p>Write a procedure to control one output device e.g. light, using WAIT.</p> <p>Write a precise sequence of instructions to control a number of output devices e.g. traffic lights.</p> <p>Write a sequence of instructions, test it and correct any errors or omissions.</p> <p>“What happens when ...?”</p> <p>Use a sensor to record changes in temperature, light or sound.</p> <p>Use a sensor to take a series of accurate readings over a period of time and explain the advantages of using a computer to do this.</p> <p>Use a sensor to monitor external conditions in relation to the environment e.g. noise pollution.</p> <p>Discuss the advantages of using a remote sensor.</p>	<p>Learn that an input device can be used to cause an event.</p> <p>Write a procedure to check inputs and switch on an output.</p> <p>Write and test a procedure to check two inputs and an output event.</p> <p>Write procedures for inputs and outputs to simulate everyday events or to test on working models.</p>
	<b>Developing Ideas and Trying Things Out (Modelling)</b>	<p>Explore a simple adventure game</p> <p>Solve a simple problem.</p> <p>Choose an option.</p> <p>Achieve a desired effect by choosing particular options.</p> <p>Use a variety of types of information - text, pictures, sound, colour.</p>	<p>Try out ideas using art and text/publishing programs to create greetings cards and other useful outcomes.</p>	<p>Use a simulation to make and explore predictions and to identify patterns.</p> <p>Use Logo to make and explore predictions and to identify patterns e.g. that you need a space, that the number relates to steps or degrees, that the bigger the number the bigger the turn.</p> <p>Demonstrate to others and/or prepare a list of instructions for others to use.</p> <p>Enter data into a computer simulation i.e. make a choice.</p> <p>Solve an adventure game or similar and describe or show in diagrams how this was achieved.</p> <p>Demonstrate a more planned approach to solving problems rather than a random choice of options.</p> <p>Use logical reasoning to understand how simple algorithms work.</p>	<p>Use the repeat instruction and predict what will happen.</p> <p>Name and edit sequences of instructions.</p> <p>Combine procedures to form a new procedure.</p> <p>Use Logo to make and explore predictions e.g. that the number of repeats affects the shape of a polygon.</p> <p>Use Logo to solve problems in shape angle and measure.</p> <p>Use textease turtle to create tasks and problems for each other to solve.</p>	<p>Use a graphical model to solve a problem - identifying patterns and relationships, perhaps working to scale.</p> <p>Use the features of programs and a variety of media to create suitable presentations for particular audiences e.g. PowerPoint.</p> <p>Use spreadsheet models to solve problems.</p>	<p>Use sensors in a geography or science experiment to record changes in the environment over a period of time and explain the results e.g. testing insulation properties by measuring the drop in temperature of the liquid in two containers.</p>

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Developing good E-safety practice.</p>		<p>Know how to access a safe and reliable website using a web browser.          Know to tell a trusted adult if something on the computer seems strange.          Know to keep any information completely private when using the internet.          Understand there are areas of the internet meant for children, and areas of the internet that are unsuitable/do not appeal to children.</p> <p>Be able to report something to a trusted adult or CEOP function.</p>	<p>Be able to use and apply the SMART rules to explain staying safe on the internet.          Give advice to another child or grown up how to stay safe when using technology.</p> <p>Be able to report something to a trusted adult or CEOP function.</p>	<p>Apply the SMART rules to their own use of computing in the classroom and at home.          Relate a problem scenario to the apps and programs the children access.          Understand privacy, and that respecting privacy is key in our society.          Be able to plot their digital footprint, and say why this keeps them safe.          Explain how an avatar or remote picture does not mean they can trust someone.</p> <p>Be able to report something to a trusted adult or CEOP function.</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p>Recommend trusted and reliable websites to others.</p> <p>Create advice and information for others based around the SMART rules.</p> <p>Differentiate between reliable and unreliable sites/information.</p> <p>Develop good practice when using messaging service – including privacy, content, and media included.</p> <p>Be able to report something to a trusted adult or CEOP function.          Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p>Relate PSHE work to case studies looking at E-Safety difficulties experienced by young people.</p> <p>Think about the wider context, as well as the future consequences of their E safety choices.</p> <p>Link computing and gaming together, using the same guidelines and SMART rules to keep them safe and respectful when online.</p> <p>Be able to report something to a trusted adult or CEOP function.</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p>Present information to range of people showing the benefits and skills associated with E-safety.</p> <p>Apply and advise on the SMART rules.</p> <p>Be able to report something to a trusted adult or CEOP function.</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>
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