

Year 3 Objectives in ICT

<u>National Curriculum Objectives</u>	<u>Skills Development</u>	<u>Key Skills</u>
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> design and write 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 a simple algorithm works and to detect and correct errors in algorithms and programs understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for 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) on a range of digital devices to 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 	<p><u>Create and Communicate Information</u> Word processing- Plan and create pieces of work on the computer using appropriate keyboard skills. Edit text, alter font size, colour and style and insert clipart/images into a document. Introduce cut, copy and paste techniques to help organise their ideas and a spell checker to check for accuracy. Navigate to folders and save and retrieve work independently.</p> <p>Email- Discuss the different ways of communicating and understand that messages can be sent over distances. Send and respond to e-mails and understand the importance of e-mail addresses being accurate. Understand the importance of personal safety when communicating and sharing information with others. Conduct a video chat with someone either within school or in another school.(e.g. 'We are communicators')</p> <p><u>Find and Analyse Information</u> Navigate websites-To be taught that the Internet holds information stored on websites viewed using a web browser. Learn that the Internet has many uses and is a powerful tool for learning, but information is not always accurate. Navigate websites for information and to complete tasks and can use a favourites list or history list to locate previously viewed websites. To be taught about Internet safety and appropriate use. (We are researchers) Logo-Move a screen turtle using direct commands for a specific purpose. Use Repeat Commands to explore and investigate regular shapes, Create simple procedures analysing the effects of changing variables such as length and angles to investigate 'what would happen if...' scenarios. Create simple Turtle worlds, such as mazes or obstacle courses for the Turtle to explore. save, retrieve and edit their procedures as part of their work.</p> <p><u>Media-</u> Music and sounds- Record sounds and know how to play them back. Use portable recording devices and microphones connected to the computer to record and play a variety of sounds including speech, sounds in the environment and music. Navigate a computer, website or CD ROM to find sound and image files to illustrate and enhance their work and save, retrieve, edit and re-save work independently realising the importance of saving work regularly. Digital camera-Use a digital camera to capture images and transfer the images to a computer. Use recorded sounds and captured digital images to enhance work created in a desk top publishing package and create photo stories.(e.g. 'We are comic writers')</p>	<p><u>Word Processing</u> I can continue to develop correct use of the keyboard with increasing speed and accuracy. I highlight text to copy and paste. I change the font, format and size of my text. I use the automatic spell checker to edit my spellings. I copy graphics from a range of sources and paste it into a desktop publishing program. Can they create a presentation that moves from slide to slide and is aimed at a specific audience? Can they combine text, images and sounds and show awareness of audience? Do they know how to manipulate text, underline text, centre text, change font and size and save text to a folder? Challenge Objectives: Can they search by keyword using a child friendly search engine? Can they book mark a page into your favourites? Can they contribute to a class blog?</p> <p><u>E-Mail</u> Can they use the email address book? Can they open and send an attachment?</p> <p><u>Navigate Websites</u> Can they find relevant information by browsing a menu? Can they search for an image, then copy and paste it into a document? Can they use 'Save picture as' to save an image to the computer? Can they copy and paste text into a document? Do they begin to use note making skills to decide what text to copy?</p> <p><u>Programming</u> •Can they experiment with variables to control models? •Can they use 90 degree and 45 degree turns? •Can they give an on-screen robot directional instructions? •Can they draw a square, rectangle and other regular shapes on screen, using commands? •Can they write more complex programs?</p> <p><u>Music and Sounds</u> I use ICT to record sounds and import them from other sources. I edit existing sound files in sound editing software, e.g., Audacity. I use music software to experiment with capturing, repeating and sequencing sound patterns. I use a variety of devices and software to select, playback and record voice and other sounds.</p> <p><u>Data retrieving and organising</u> •Can they review images on a camera and delete unwanted images? •Have they experienced downloading images from a camera into files on the computer? •Can they use photo editing software to crop photos and add effects? •Can they manipulate sound when using simple recording story boarding? •Can they input data into a prepared database? •Can they sort and search a database to answer simple questions? •Can they use a branching database?</p>

Year 4 Objectives for ICT

National Curriculum Objectives	Skills Development	Key Skills
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> design and write 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 a simple algorithm works and to detect and correct errors in algorithms and programs understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for 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) on a range of digital devices to 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 	<p>Create and Communicate Word processing-Save, retrieve, edit and re-save work independently, understanding the importance of saving work regularly. Navigate to folders to use shared resources. Develop desktop publishing skills using different editing tools to highlight, edit, justify text and insert images to enhance their documents and evaluate and refine their work. Use copy and paste techniques to improve text and develop their work. Graphics- Create digital pieces of art on the computer. Create a number of geometric patterns including tiling patterns, patterns made with repeated polygons, and work made by varying lines and curves. (e.g. 'We are artists')</p> <p>Find and Analyse Databases-Use a branching database to sort information, frame questions and find answers. Understand that collecting and sorting information in an organised way helps find answers to questions. Input data into a prepared database and understand the need for accuracy when entering information. Add, delete and change data then save the amendments. Make and interpret a chart from the information gathered and find answers to a variety of questions using simple searches. Make up questions for others to solve. (e.g. 'We are historians') Control- Plan an investigation using data logging. Carry out the investigation independently, downloading and interpreting results. Present findings. (e.g. 'We are meteorologists') Internet-Know how to use appropriately and how to remain safe online. Use a moderated search engine to locate information to use in their work and understand that information stored on websites may not always be accurate. (Possible polar regions link to produce a Wiki. Find and evaluate specific relevant information to use in a presentation. (e.g. 'We are co-authors')</p> <p>Media Digital cameras/video-Use digital cameras effectively becoming aware of the camera features. Use and process images to enhance their work. Use captured images within a variety of software packages. Use images within multimedia presentation software to create a video clip with music and/or sound. (Possible Castleton link-Children create, edit and evaluate digital video and photography. (e.g. 'We are travel presenters') Extra-Music and sound- Plan and record material to create a sound story. Use software to compose own music. (We are musicians)</p>	<p>Word Processing I align my text using the left, right and centre tools and create a textbox. I use CTRL C to copy and CTRL V to paste I insert and edit simple tables. I recognise that ICT can automate manual processes, e.g., find and replace and understand the advantages and disadvantages of this. Do they appreciate the benefits of ICT to send messages and to communicate? Can they use the automatic spell checker to edit spellings?</p> <p>Data retrieving and Organising Images Can they input data into a prepared database? Can they sort and search a database to answer simple questions? Do they recognise what a spread sheet is? Can they use the terms 'cells', 'rows' and 'columns'? Can they enter data, highlight it and make bar charts? Can they capture images using webcams, screen capture, scanning, visualiser and internet? Can they choose images and download into a file? Can they download images from the camera into files on the computer? Can they copy graphics from a range of sources and paste into a desktop publishing program? Challenge Objective: Can they use photo editing software to crop photographs and add effects? Can they copy and paste the graph/barchart and use it in a WP document?</p> <p>Algorithms and Programs Can they use repeat instructions to draw regular shapes on screen, using commands? Can they experiment with variables to control models? Can they make turns specifying the degrees? Can they give an on-screen robot specific directional instructions that takes them from x to y? Can they make accurate predictions about the outcome of a program they have written?</p> <p>Internet Can they use a search engine to find a specific website? Can they use note-taking skills to decide which text to copy and paste into a document? Can they use tabbed browsing to open two or more web pages at the same time? Can they open a link to a new window? Can they open a document (PDF) and view it?</p> <p>Media I make multimedia presentations that contain: sound, animation, video and buttons to navigate. I add simple titles, credits and special effects, e.g., transitions. I create a range of hyperlinks and produce a non-linear, interactive presentation. I import music, stills or video into video editing software for a specific project. I use ICT to create and perform sounds or music that would otherwise not be possible in a live situation, e.g., editing a multi-part piece. Can they create a lengthy presentation that moves from slide to slide and is aimed at a specific audience? Can they insert sound recordings into a multimedia presentation? Do they know how to manipulate text, underline text, centre text, change font and size and save text to a folder? Challenge Objective: Can they use animation in their presentation?</p>

Year 5 Objectives for ICT

<u>National Curriculum Objectives</u>	<u>Skills Development</u>	<u>Key Skills</u>
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> design and write 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 a simple algorithm works and to detect and correct errors in algorithms and programs understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for 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) on a range of digital devices to 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 	<p><u>Create and communicate information</u></p> <p>Communicating Ideas - Presentation & layout- Plan, save, retrieve, edit and re-save work independently, realising the importance of saving work regularly. Combine sequences of images and sounds. Explore designs. Evaluate layout and presentation for a purpose and include hyperlinks within their work. Use a variety of ways to present information such as a poster, leaflet, author reviews or a newspaper.</p> <p>E-mailing with a variety of attachments- Create and respond to e-mails and include attachments. Understand that different file types can be used as attachments, such as pictures and documents. Learn how to add e-mail addresses to an address book, send e-mails containing a variety of attachments and about different file types. Contribute to a class podcast. Conduct a video chat with more than one person at once. Be aware of electronic communication safety.</p> <p><u>Find and analyse information</u></p> <p>Internet-Children select relevant information from a range of given sources including the Internet. (<i>We are web designers</i>)</p> <p>Spread sheets- Create spread sheets initially containing simple formulae, then, if appropriate, move on to a variety of formulae and cell formats. Understand that spread sheets work on patterns and relationships and use the data to plot and interpret a variety of graphs. Use the fill function to replicate cells and formulae, interrogate and analyse the data and/or the effect of changing the data and write about their investigation using graphs to illustrate their work. Check accuracy and plausibility. (e.g. <i>'We are statistians'- creates a report presenting data and analysis in charts, tables and text.</i>)</p> <p>Databases-Children understand that a database can store information in a variety of formats. Solve a problem by planning and carrying out data collection, by organising and analysing data using a database, and by drawing conclusions and presenting findings to a specific audience.</p> <p><u>Media</u></p> <p>Research, video and sound -Children use a variety of equipment to capture images, sounds & narration. They plan and produce a video that includes their resources. E.g. Create an advert by combining video recording and editing sounds. (<i>We are advertisers.</i>)</p> <p>Digital video-Animation- scripting recording and editing sound, narration and dialogue. Create, edit and refine. Evaluate the quality of films for target audience.</p>	<p><u>Communicating ideas</u></p> <p>I continue to develop correct use of the keyboard with increasing speed and accuracy. I confidently format all text to suit the purpose of my document. I can make an information poster using my graphics skills to good effect. (L4/5) Can they use instant messaging to communicate with class members? Can they conduct a video chat with someone elsewhere in the school or in another school? Can they use the word count tool to check the length of a document? Can they use bullets and numbering tools?</p> <p><u>E-mail and Internet</u></p> <p>I can send an e mail with an attachment. (L4/5) I add, amend and combine different forms of information from a variety of sources. Can they use a search engine using keyword searches? Can they compare the results of different searches? Can they decide which sections are appropriate to copy and paste from at least two web pages? Can they save stored information following simple lines of enquiry? Can they download a document and save it to the computer?</p> <p><u>Spreadsheets and Databases</u></p> <p>I compare my use of ICT with other methods and I decide which is most appropriate. I recognise the grid layout of a spreadsheet program using 'cell', 'row' and 'column' (L3). I develop simple spreadsheet models to investigate a real life problem. Can they create a formula in a spreadsheet and then check for accuracy and plausibility? Can they search databases for information using symbols such as = > or <? Can they create databases planning the fields, rows and columns? Can they create graphs and tables to be copied and pasted into other documents?</p> <p><u>Data retrieving and organising</u></p> <p>Can they listen to streaming audio such as online radio? Can they download and listen to podcasts? Can they produce and upload a podcast? Can they manipulate sounds using Audacity? Can they select music from open sources and incorporate it into multimedia presentations? Can they work on simple film editing? Challenge Objective: Can they make an information poster using graphics skills to good effect?</p> <p><u>Media</u></p> <p>Challenge Objective: I make multimedia presentations that contain: sound, animation and video. I develop the use of hyperlinks to produce interactive, non-linear presentations. I upload and download projects to other devices and online space, e.g., VLE (Moodle) collaborating and communicating with audiences in locations beyond school. Do they consider audience when editing a simple film? Do they know how to prepare and then present a simple film? Can they use ICT to record sounds and capture both still and video images? Can they make a home page for a website that contains links to other pages? Can they capture sounds, images and video?</p> <p><u>Algorithms and Programming</u></p> <p>Can they combine sequences of instructions and procedures to turn devices on or off? Do they understand input and output? Can they use an ICT program to control an external device that is electrical and/or mechanical? Can they use ICT to measure sound or light or temperate using sensors? Can they explore 'What is' questions by playing adventure or quest games? Can they write programs that have sequences and repetitions?</p>

Year 6 Objectives for ICT

<u>National Curriculum Objectives</u>	<u>Skills Development</u>	<u>Key Skills</u>
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> design and write 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 a simple algorithm works and to detect and correct errors in algorithms and programs understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for 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) on a range of digital devices to 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 	<p><u>Create and communicate information</u> Plan, create and develop a presentation including appropriate software, combined from a range of sources, organise and refine to suit purpose and audience. (e.g. 'We are publishers'-Creating a yearbook or 'We are game developers'- Creating an adventure game)</p> <p><u>E-safety</u>-Work collaboratively to produce a comprehensive, balanced and well researched website (or leaflet) offering advice on all aspects of e-safety for parents of primary aged children. (e.g. 'We are web developers'.)</p> <p><u>Find and analyse information</u> Control- Fairground unit.</p> <p><u>Media</u> Children learn to use a variety of media equipment effectively. Graphics/ Digital video - Create a short edited video containing a screencast, relevant images and interview or video diary elements, drawing on their exploration of a climate change simulation and their own independent research. (e.g. We are environmentalists)</p> <p><u>Music and sound</u>- Plan, create, edit and refine a song or audio book, incorporating imported sounds.</p>	<p><u>Create and Communicate Information</u> I incorporate graphics where appropriate, using the most effective text wrapping formats.(L5) My work shows I am aware of the intended audience and a need for quality.(L5) I explore 'What if' questions by playing adventure or quest games and planning different scenarios for controlled devices.(L5) Can they conduct a video chat with people in another country or organisation? I make effective use of transitions and animations in presentations, considering their appropriateness and overall effect on the audience. Can they present a film for a specific audience and then adapt same film for a different audience? Can they confidently choose the correct page set up option when creating a document? Can they confidently use text formatting tools, including heading and body text? Can they use the 'hanging indent' tool to help format work where appropriate (e.g. a play script)?</p> <p><u>E-Safety and the Internet</u> I can use the cc and bcc facilities when sending an e-mail and know when they may be used. I send 'group' e-mails and are aware of the benefits and risks in 'replying to all'. I know what to do and who to tell if they discover something inappropriate or offensive on a website, at home and in school, e.g., how to minimise a screen, turn the monitor off, or use back buttons to return to the home page, according to school's e-Safety policies and procedures /AUP. Can they contribute to discussions online? Can they use a search engine using keyword searches? Can they use complex searches using such as '+' 'OR' "Find the phrase in inverted commas"? Challenge objectives: Can they compare the information provided on two tabbed websites looking for bias and perspective?</p> <p><u>Algorithm and Programs</u> Can they explain how an algorithm works? Can they detect errors in a program and correct them? Can they use an ICT program to control a number of events for an external device? Can they use ICT to measure sound, light or temperature using sensors and interpret the data? Can they explore 'what if' questions by planning different scenarios for controlled devices? Can they use input from sensors to trigger events? Can they check and refine a series of instructions?</p> <p><u>Data retrieving and Organising</u> Can they collect live data using data logging equipment? Can they identify data error, patterns and sequences? Can they use the formulae bar to explore mathematical scenarios? Can they create their own database and present information from it? I explore the effects of changing variables in models and simulations in order to solve a problem. I interpret my findings and question whether they seem accurate.(L5)</p> <p><u>Images and Sound</u> I capture my own sound, video and still images, altering them as appropriate. (L5) I compare my use of ICT with other methods and I decide which is most appropriate. Can they explore the menu options and experiment with images (colour effects, options, snap to grid, grid settings etc.)? Can they add special effects to alter the appearance of a graphic? Can they create a sophisticated multimedia presentation? Challenge objectives: Can they incorporate graphics where appropriate, using the most effective text wrapping formats?</p>

