Gosfield Primary School

Computing

Intent: Technology is an integral part of everyday life. At Gosfield Community Primary School, we hope to prepare our children for a future in an environment which is shaped by technology. Our main priority of computing is to engage children with cross-curricular learning through interacting with technology. We aim to develop confident, independent learners who are able to plan, design, create, program and evaluate information through the use of ICT. As well as the benefits of ICT we are also aware of the risks, this is why we prepare our children to stay safe online through the use of e-safety awareness sessions and safer internet days.

Implementation: We recognise that children are living within an increasingly technological world and aim to develop confidence and knowledge in this area. Computing skills are taught specifically during computing sessions. Skills are practised in sessions and then applied across the curriculum to enhance other subjects. Alongside computing skills we regularly revisit internet safety and the importance of *why* we need to keep ourselves safe of the internet. As children leave primary school, we aim for children to transfer this knowledge and have the confidence to implement these skills in everyday situations. Our units of work are blocked out so that it allows key skills to be taught each year, to build on previous learning.

Every class has planned opportunities to use the laptops and can book out the iPads. We encourage staff to incorporate technology throughout the wider curriculum and use these skills to research and present writing in a variety of ways. Each class has access to SMART boards and teaching is delivered using this technology.

Whole school over-view

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Ks1	Technology around us (digital safety and generic skills)	Digital Writing (generic skills)	Digital Painting (graphics and video)	Moving and Control (robots and algorithms)	Using the internet (research)	Creating Media (mulit-media)
Ks2	Technology around us (digital safety and generic skills)	Using the internet (research and email)	Desktop publishing (word publishing, presentations)	Moving and Control (robots and algorithms)	Creating Media (mulita-media)	Grouping data (spreadsheets)

Although EYFS are not explicitly including in the objectives of this computing curriculum, they will be exposed to the technology in Class 1 and will enjoy a range of experiences. Children will be assessed using Development Matters 2020 and their technology based learning will be through exploration of ipads, laptops and other hardware. Technology will be used to support their creative lessons including art and music. All children also have access to our online learning platform, DB Primary, so children can use technology both at home and at school to support their learning.

KS1 objectives – Autumn term

	Technology around us	Digital Writing
Year 1	To know that the same principles apply to online relationships as to face-to face relationships, including the importance of respect for others online including when we are anonymous. To understand how to ask for help if they see something online that isn't kind or appropriate To be able to turn a laptop or computer on and off To have experience using a range of ICT equipment and software (ipads, laptop, kindle, camera) To know that work can be saved and retrieved To load work previously saved To use the mouse/mouse pad to control the cursor	(All objectives can be achieved using Word, Google Docs, Book Creator) To put text on screen To use the space bar consistently To use the Return key to move down the page To use capslock/shift to create capital letters To enter a word list using the keyboard To remove text using backspace To practise using both hands on the keyboard To be able to print work or pictures using the print icon
Year 2	To know that people sometimes behave differently online, including by pretending to be someone they are not. To understand how to ask for help if they see something online that isn't kind or appropriate To begin to understand the importance of privacy- not sharing information; name, age, location To use appropriate ICT vocabulary (naming parts of the computer, processes etc) To have experience of a range of ICT equipment and software, describe their work and how they have used ICT to support their learning To be able to load a range of programs independently	(All objectives can be achieved using Word, Google Docs, Book Creator) To use capslock/shift to create capital letters To add and remove text to a word processing document To use the cursor/mouse to edit text by highlighting – changing fonts, colour, size To use two hands on the keyboard, trying to use the thumb for spacebar To be able to print work or pictures using the print icon To begin to edit/change work and re-save To be able to save and retrieve work independently

Ks1 objectives – Spring Term

	Digital Painting	Moving and Control
Year 1	To experiment with an art program trying different tools and effects, as one of a range of media available (Paint, Db Primary) To begin to be use an art package as medium to convey their ideas (Paint, Db Primary, Book Creator, Explain Everything) With support, use a digital camera or ipad to take pictures and start to edit them To be aware that digital pictures and video can be displayed on a computer screen (starting to screen share – Airplay)	To know that many everyday devices respond to commands To follow simple instructions eg playing at robots, country dancing (not using tech) To control a programmable robot in linear scenarios, using Forward and Backward commands (arrows) and the Go command (BeeBot) To use trial and error to create a sequence of instructions to a move a programmable robot (BeeBot)
Year 2	To be able to use an art package as an alternative medium to create art (Paint, Db Primary, Book Creator, Explain Everything) To use a digital camera or digital video camera to take appropriate pictures or video for a specific purpose (ipad camera) To add captions or sound to digital pictures or video with support (Book Creator, Explain Everything, iMovie, Powerpoint) To be able to do simple manipulation of images using software eg the digital camera's software (ipad camera function – cropping, changing filters etc)	To control a programmable robot, with a purpose (defined by either teacher or child) (BeeBot) To understand that , once programmed a programmable robot can repeat the same instructions (BeeBot) To plan and create a sequence of instructions to a move a programmable robot (BeeBot) To 'debug' and make corrections to their instructions (BeeBot)

Ks1 objectives – Summer Term

	Using the internet	Creating Media
Year 1	To explore selected internet website resources (with adult support) To use search engine to select appropriate resources (with adult support) To be aware of Internet safety rules (link back to autumn term) To navigate a selected learning platform (Db Primary)	To use dictaphones to record and playback sounds eg own voice, others voices (sound buttons, ipads, Puppet Pals) To explore music software to create sounds and create a simple composition (Garage Band, charanga, Chrome Music Lab) To choose commands for a given purpose to move a digital character (Daisy Dinosaur, Scratch Jr) To begin to explore simple animation functions using stop/go technology (I can Animate)
Year 2	To explore selected internet website resources and games To use search engine to select appropriate resources (Google) Use the internet to find out facts about a chose topic area To be aware of Internet safety rules and understand how to report concerns (link back to Autumn term) To navigate a selected learning platform (Db Primary)	To use pictures and sound on a digital sequence (powerpoint, imovie) To use dictaphones to record and playback sounds eg own voice, others voices (sound buttons, ipads, Puppet Pals) To use music software to create sounds and create a simple composition and edit then evaluate it (Garage Band, charanga, Chrome Music Lab) To choose commands for a given purpose to move a digital character (Daisy Dinosaur, Scratch Jr) To understand how to create a simple animation using stop/go technology (I can Animate)

Ks2 Objectives – Autumn Term

	Technology Around Us	Using the Internet
Year 3	To know the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them. To explore 'Online behaviour' –to understand: 1)what acceptable and unacceptable online behaviour look like. 2) that the same standard of behaviour and honesty apply on and offline, including the importance of respect for others. 3) why people behave differently online, for example how anonymity (you do not know me) and invisibility (you cannot see me) affect what people do 4) considering unacceptable online behaviours often passed off as so-called social norms or just 'banter' would never be tolerated offline so is therefore not acceptable online. To know never to share personal information online, and not to arrange to meet anyone you have not met before To have an awareness of different technology in school and use it safely	To use simple search tools to find information on the internet To understand that not all information may be accurate (Fake News) To know the purpose of emailing To logon and log out to an email account (DB Primary) To compose and send an email to a teacher/adult in school (DB Primary) To open a reply in an email conversation (DB Primary)
Year 4	To be able to critically consider their online friendships and sources of information including awareness of the risks associated with people they have never met To make judgements about what they see online and not automatically assume that what they see is true, valid or acceptable. (Fake news) To explore cyber-bullying and its meaning – including, trolling, harassment and intimidation To know how to respond to abuse online and be able to access help and support To understand how to ask for help if they see something online that isn't kind or appropriate To have an awareness of different technology in school and use it safely	To use simple search tools to find information on the internet To understand that not all information may be accurate (Fake News) To know that emails can be sent all over the world electronically (link with school abroad?) To logon and log out to an email account (DB Primary) To use email as a communication tool with other members of the class/school as part of a project With support, add an attachment/picture to an email and send to a teacher in school
Year 5	To recognise techniques used for persuasion – This will enable pupils to recognise the techniques that are often used to persuade or manipulate others. To begin to recognise online content which tries to make people believe something false is true and/or mislead To know how and when to seek support if they are concerned or upset by something they have seen online.	To use simple search tools to find information on the internet To accurately type web addresses into the search bar To use 'and' and 'or' searches in a search engine To use email as a communication tool with other members of the class/school as part of a project

	Look at the different ways to access support from the school, police, the National Crime Agency's Click CEOP reporting service for children and 3rd sector organisations such as Childline and Internet Watch Foundation. To have an experience of using different technology in school and use it safely	To add an attachment/picture to an email and send to a teacher in school To know that files can be sent via email (word documents and photos) (DB Primary) To be able to send an email to more than one person (DB Primary) To forward an email to a different person (DB Primary)
Year 6	To be aware of e-safety by discussing the ways in which someone may put themselves at risk online (permanent digital footprint, affecting job prospects etc) To be able to discuss the risks vs the benefits of sharing information online and how to make a judgement about when and how to share and who to share with Develop basic awareness of online 'challenges' and how they acquire mass followings and encourage others to take part in what they suggest. (burn hands, pump lips, ice) To know how and when to seek support if they are concerned or upset by something they have seen online. Look at the different ways to access support from the school, police, the National Crime Agency's Click CEOP reporting service for children and 3rd sector organisations such as Childline and Internet Watch Foundation. To have an experience of using different technology in school and use it safely	To use simple search tools to find information on the internet and state the source of information To accurately type web addresses into the search bar To use email as a communication tool with other members of the class/school as part of a project To add an attachment/picture to an email and send to a teacher in school (DB Primary) To know that files can be sent via email (word documents and photos) (DB Primary) To be able to send an email to more than one person (DB Primary) To forward an email to a different person (DB Primary) To create a blog class page and update regularly To use the internet to promote a charitable event

Key Stage 2 objectives – Spring Term

	Desktop publishing	Moving and Control
Year 3	To be aware that work can be saved in different ways eg network, desktop, usb stick To use print preview to check work before printing (word, google docs) To use copy and paste as necessary To select text to change font, size and colour. To select text to use bold, italic and underline functions To use the mousepad and cursor to edit work To add images and text styles to work (word, google docs, powerpoint, book creator)	To plan, write, evaluate, and edit a sequence of instructions to a move a programmable robot (BeeBot) To be aware that Logo is a computer language (Turtle Academy online) To plan, write, evaluate, and edit a simple procedure for a specific purpose (Scratch Jr, Flowol4) To use the Repeat command eg to create simple shapes
Year 4	To be able to save and retrieve work from a relevant folder To use the spell checker function on a word document To use page setup to change the page orientation To insert a table into a word document (word, google docs, powerpoint, book creator) To use 'find/replace' function in a word document To copy and paste images into a presentation/document	To begin to experiment with on-screen control software to control outputs (Scratch Jr, Flowol4) To be aware that the computer can be used to control external devices (outputs) eg lights, buzzers, motors and that these can be simulated by pictures on screen With support, use onscreen control software to plan, create and run a simple set of instructions to make eg a light flash To evaluate and edit the instructions
Year 5	To use word processing skills in a range of contexts To import graphics/word art/images into a document and position them appropriately To make edits/changes to a written document to make it aesthetically pleasing eg sizing, fonts, alignment, orientation, adding pictures, titles etc To insert a table into a word document (word, google docs, powerpoint, book creator) To use 'find/replace' function in a word document	To use on-screen control software to plan, create and run a set of instructions to make eg to change the traffic lights To predict the outcome of a control procedure and then edit and improve To be aware of control applications in everyday life eg automatic doors, robots in car factories, automatic security lights
Year 6	To use word processing skills in a range of contexts To import graphics/word art/images into a document and position them appropriately	To use on-screen control software to plan, create and run a more complex set of instructions To use information from a sensor (input) to initiate parts of the control program To plan and create a control system to answer a task

To make edits/changes to a written document to make it aesthetically pleasing eg sizing, fonts, alignment, orientation, adding pictures, titles etc	To know when it would be appropriate to use a control system
To add hyperlinks to a document or presentation	To create more complex patterns using repeated simple procedures

Ks2 objectives – Summer Term

	Creating Media	Grouping Data
Year 3	To create a simple presentation to display text and pictures (powerpoint, imovie, book creator) To add sound effects and transitions to a presentation (powerpoint, imovie, book creator) To create a presentation using video, considering the audience and purpose (ipad video) To design and produce a 2D stop/go animation (I can Animate) To manipulate digital images changing colours and effects (ipad camera) To use a digital camera to capture relevant photographs (ipad camera) To explore music software to create sounds and create a simple group composition (Garage Band, charanga, Chrome Music Lab)	(Use Excel to meet all statements) https://www.schoolsofkingedwardvi.co.uk/ks2-computing-information-technology-5-spreadsheets-charts/ To open a spreadsheet program independently and set up a new spreadsheet To enter data into a simple spreadsheet To use a spreadsheet to produce a graph
Year 4	To edit and improve a presentation to be viewed by other people (powerpoint, imovie, book creator) To add sound effects and transitions to a presentation (powerpoint, imovie, book creator) To create a digital presentation including text, sound, video and pictures (imovie) To collaborate in making a 3d animation using stop/go technology (I can animate) To manipulate digital images changing colours and effects (ipad camera) To use a digital camera to capture relevant photographs (ipad camera) To use music software to create a group composition and save it for others to enjoy (Garage Band, charanga, Chrome Music Lab)	To use a spreadsheet to enter data To use a spreadsheet to produce a graph To edit a spreadsheet to highlight key information (eg filling colour into cells)

Year 5	To edit and improve a presentation to be viewed by other people (powerpoint, imovie, book creator) To add sound effects, transitions and hyperlinks to a presentation (powerpoint, imovie, book creator) To create a digital presentation including text, sound, video and pictures (imovie) To collaborate in making a 3d animation using stop/go technology (I can animate) To use a wide range of functions in an online art app/program (Sketch up, tinkercad) To manipulate digital images changing colours and effects (ipad camera) To use music software to create a group composition and save it for others to enjoy (Garage Band, charanga, Chrome Music Lab)	To create a spreadsheet with relevant headings and data To begin to use simple 'SUM' formulas to find totals To use a spreadsheet to investigate number/total (for example best value food items)
Year 6	To select own software to produce a high quality presentation for a specific purpose that will be viewed by an audience (eg parents for website) To create hyperlinks to support other children in a presentation (eg a revision document) To collaborate in making a 3d animation using stop/go technology (I can animate) To use augmented reality to create an interactive display (Aurasma) To use a wide range of functions in an online art app/program (Sketch up, tinkercad) To manipulate digital images changing colours and effects (ipad camera) To use music software to create music which can be used in a presentation to be shared with others Garage Band, charanga, Chrome Music Lab)	To create a spreadsheet with relevant headings and data To begin to use simple 'SUM' formulas to find totals To use a spreadsheet to investigate number/total (for example best value food items) To type in simple formulae into cells to find out information To investigate and create a project using spreadsheets (linked to end of year leaver's production).