

Danegrove Primary School Computing Overview by Year Group 2021-2022



Intent: Computing at Danegrove School prepares all our children to develop their skills and knowledge in order for them to participate in a rapidly changing world. Computers and ipads are used for a range of purposes including, data processing, word processing, animation and film creation. Our children often use the computer to publish their stories and poems and print these for display or to share them with others. They will also become familiar with code through practical activities and use of software packages. Safe practice using technology is encouraged throughout the school through our online safety sessions.

Year Group	Autumn		Spring		Summer	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	EYFS: Te	echnology is used in place	es such as homes and scho	ols. They select and use	e technology for particular p	ourposes.
EYFS	Privacy and Security To identify some personal information birthday, age and To describe the personal security.	eople that they can trust s information with and	Safer Internet Day - 8 th Febr Whole School Assembly Spr Early Word Processing/Ty To be able to use screen to target screen.	ing 2 ping a mouse, and/or touch and select options on Things: Mouse and	Health, Wellbeing and life To identify rules safe and healthy when using techn simple examples (Unplugged activity) Sum Programming – A simple instructions. To follow simple learning) To input a simple control a Bee-Bo (Unplugged and Sum Online Reputation and Co To identify ways onto the internet To know that wo belongs to them	that can help keep them in and beyond the home hology and to give some hology and to give hold hold hold hold hold hold hold hold

			Summer 2 Word Processing/Photography To type letters with increasing confidence using a keyboard or tablet. To take a photo and use it in an app To dictate short, clear sentences into a digital device (Suggested App: Chatterkid)
Topics	You, Me and We	Spring 1: Toys Spring 2: The Natural World	Seas and Oceans
Year 1	Autumn 1 Privacy and Security To recognise more detailed examples of information that is personal e.g., home address, family names and school attended To describe the people that they can trust and can share this information with and explain why they are trusted. To identify ways that they can put information on the internet. To describe the information that should not be put online without asking a trusted adult. (Unplugged activity: e.g., Smartie The Penguin)	Spring 1 Safer Internet Day - 8th February 2022 Whole School Assembly Spring 1 Sound/Images To record their own voice to ask questions about toys through the ages to guests. To understand that the work can be saved and opened when needed. To create digital photos and create a simple presentation on the topic using labels to identify objects. (Suggested App: Voice memos on IPad)	Summer 1 Health, Wellbeing and lifestyle To explain and give examples of the rules to keep them safe when using technology both in and beyond the home. (Unplugged activity) Summer 1 Coding To create a simple sequence of instructions so that the Bee-bot can move around a topic themed picture e.g. sea-side. To use a sequence in the program to locate and fix errors. (Suggested: Bee-Bots)
real 1	Autumn 2 Coding To give oral Instructions to find key locations on the map of the local area. To change the directions when needed. (Unplugged activity)	Spring 2 Online Bullying To explain why it is important to be considerate and kind to people online. To describe and give examples how to behave online in ways that do not upset others. (Unplugged activity)	Summer 2 Online Reputation and Copyright and Ownership To recognise that information can stay online and could be copied. To describe what information they should not put online without asking a trusted adult first. (Unplugged activity) Summer 2
		Spring 2 Animation To create an animation of the Natural World, e.g., dinosaurs, using their pictures, to tell a story with more than one scene.	Databases To create a list of the flowers in and around the school. To use a simple branching database to sort the list flowers based on one criterion e.g., wild and common. To enter data into a premade database.

		 To add filters to enhance the animation of the character using tools e.g., paint, fill. 	(Links to Science topic: Plants)
	You, Me and We	Spring 1: The Monarchy Spring 2: Heroes and Heroines	London
	Autumn 1 Privacy and Security To describe why other people's work belongs to them. To recognise that content on the internet may belong to other people and To learn to respect people's privacy online. To explain how information put online about me can last for a long time. To know who to talk to if I think someone has made a mistake about putting something online. To understand that the information on the internet can be viewed by everyone. (Unplugged activity)	Spring 1 Safer Internet Day - 8 th February 2022 Whole School Assembly • To understand the schools acceptable use policy (AUP) Spring 1 Coding • To use a series of instructions, on the programmable probots (cars) to move the cars around the scenarios on the computers. (Suggested App: Probotix 2)	Summer 1 Health, Wellbeing and lifestyle To explain simple guidance for using technology in different environments and settings. To say how those rules/guides can help them. (Unplugged activity) Summer 1 Coding To use a series of instructions, on the programmable probots (cars) to move the cars around various maps of London. To upload the data from the probots to the probotix software. (Probots; material to make mats; Probotix)
Year 2	Autumn 1 Using learning tools To use educational learning apps such as mathletics and bug club in the classroom To use login details to access their profile To navigate the app using the tools. To open, save and retrieve work. To develop keyboard skills, including editing text. (Suggested: Mathletics, Bug Club)	Spring 2 Online Bullying To give examples of bullying behaviour and how it could look online. To understand how bullying can make someone feel. To talk about how someone can/would get help about being bullied online or offline. To treat others online with respect. (Unplugged activity)	Summer 1 Databases To create a list of the flowers and plants in and around the school. To sort the data into alphabetical and numerical order. (Unplugged activity) To use a simple branching database to sort the list based on different criteria e.g., wild and common, evergreen, deciduous To answer questions e.g., yes/no and more or less. (Links to Science topic: Plants)
	Autumn 2 Computer Art To use MS Paint to create self-portraits To use the paint tools to fill, edit and add text to my image. To edit images, video and sound.	Spring 2 Poster Creation To create a poster on a hero or heroine using an appropriate search engine to obtain information. Save and insert/copy and paste an image into Microsoft word. To use textease to add facts about their significant person.	Summer 2 Online Reputation and Copyright and Ownership To describe why other people's work belongs to them. To recognise that content on the internet may belong to other people. (Unplugged activity)
			Summer 2 Storyboard

	You, Me and We	Spring 1: Transport Spring 2: Rocking	 To take and edit (crop, filters, mark-up etc.) photos to create a storyboard of the great fire of London. To import images to a project from the web and camera roll To add speech bubbles to an image to show what a character thinks (Suggested App: Balloon +) Ancient Egyptians
	Tou, we and we	through the Ages	Ancient Egyptians
	Autumn 1	Spring 1	Summer 1
	 Privacy and Security To give reasons why they should only share information with people they choose to and can trust. To explain that if they are not sure or feel pressured, they should ask a trusted adult. To understand and can give reasons why passwords are important To describe simple strategies for creating and keeping passwords private. To describe how connected devices can collect and share information with others. 	Safer Internet Day - 8th February 2022 Whole School Assembly To understand the schools acceptable use policy (AUP) Spring 1 Coding To create a scratch game where they will create their background. To be able to understand that more than one program can happen at once and debug and correct any errors / make improvements.	Health, Wellbeing and lifestyle To explain why spending too much time using technology can sometimes have a negative impact on them To give some examples of activities where it is easy to spend a lot of time engaged (e.g. games, films, videos). To know that some video games are not appropriate for their age. (Unplugged activity)
Year 3	Autumn 1 Microsoft Office To explore the basics of Office To develop confidence with power-point, document creation, saving, editing, retrieving. To add a voice over for the power-point presentations.	 To be able to evaluate and assess their work and that of their peers. To extend the instruction set to include a wider range of commands. (Code for life) Spring 2 Online Bullying To explain what bullying is and can describe how people may bully others. 	Summer 1 Animation To create an animated myth or legend based on Ancient Egypt using iMovie. To improve stop motion animation clips with techniques like onion skinning. To use animation tools in presenting software to create simple animations.
	Autumn 2 Coding To be able to understand that more than one program can happen at once and debug and correct any errors / make improvements. To sequence instructions using simple repetition. (Code for life)	 To describe rules about how to behave online and how they can follow them. To describe how to respond to online bullying via different platforms. (Unplugged activity) Spring 2 Coding To recreate a version of Stonehenge using Minecraft. (Minecraft) 	Summer 2 Online Reputation and Copyright and Ownership To recognise they need to be careful before they share anything about themselves or others online. To recognise who they should ask if they are not sure if they should put something online. To recognise that some work online belongs to others. (Unplugged activity)
			Summer 2

			Research project on the Egyptians To create an eBook with text, images and sound. To design and make a front cover and create content for the e-Book. To include a table and a graph to show important information. (Book Creator, Adobe Spark Page, J2code)
	You, Me and We	Spring 1: Sport is a part of society: How and	Spring 1: Anglo-Saxons
		Why? Spring 2: The Romans	Spring 2: Extreme Earth
	Autumn 1	Spring 1	Summer 1
Year 4	 Managing Online Information To understand the schools acceptable use policy (AUP) To analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. To understand what criteria have to be met before something is a 'fact'. To describe how to search for information within a wide group of technologies (e.g. social media, image sites, video sites). To describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online. To explain that some people they 'meet online' (e.g. through social media) may be computer programmes pretending to be real people. To explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true. To use appropriate search engines to find information and answer questions. 	Safer Internet Day - 8th February 2022 Whole School Assembly To understand the schools acceptable use policy (AUP) Spring 1 Microsoft office To create a poster using a range of different tools available e.g., insert picture and edit, edit text, insert and edit table, insert text box. Import images using scanners and cameras. To locate information and search effectively using safe search engines.	Health, Wellbeing and lifestyle To explain how using technology can distract them from other things that they might do or should be doing. To identify times or situations when they might need to limit the amount of time they use technology. To suggest strategies to help them limit this time. To know that video games have a rating and understand why. (Unplugged activity) Summer 1 Film Making Create a movie on the life in the day of an Anglo-Saxon in the style of Horrible Histories using the ipads. Summer 2 Online Reputation and Copyright and Ownership
		 Use a variety of colour and texture to create a final image. Spring 2 Online Bullying To identify some online technologies where bullying might take place. To describe ways people can be bullied through a specific ways people can be bullied through a specific ways people. 	
	Autumn 1 Coding To create an animation using more than one sprite. To write a program using different conditions and negative numbers to move a sprite e.g., using if block to perform a specified action. (Suggested Apps: J2 Code, Scratch)	range of media (e.g. image, video, text, chat). To explain why they need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation). To know that images of friends cannot be uploaded without permission. (Unplugged activity)	 To describe how others can find out information about them by looking online. To explain ways that some of the information about them online could have been created, copied or shared by others. To know what copyright means. (Unplugged activity)
		Spring 2 Coding	Summer 2 Hardware

	Autumn 2 Privacy and Security To explain what a strong password is. To describe strategies for keeping personal information private, depending on context To explain that others online can pretend to be them or other people, including their friends To suggest reasons why they might do this To explain how the internet use can be monitored. Autumn 2 Microsoft Office Writing a narrative with a dilemma (linked to English) using Microsoft word. To store story digitally (pupil drive) and to retrieve from stored location and recommence work seamlessly. Autumn 2 Animation Create an animation using a suitable application, e.g., stop motion on the ipads, based on the narrative written in English.	 To use programming software to design an obstacle course for a Roman gladiator character. To test and debug as they go ensuring it works smoothly. To create a background, sprites and props using the paint tool. To programme it and add sound. (Suggested: Scratch) 	 Name the different parts of a desktop computer. Know what the functions of the different parts of a computer are. Create a leaflet to show the function of computer parts using Microsoft publisher. Summer 2 Databases To analyse data using a spreadsheet of different measurements e.g., from earthquakes from around the world. To present and sort data using a range of graphs. Interpret the data presented and identify trends. (Suggested software: Microsoft Excel)
	Von Ma and Ma	Wiking	Chandata
	You, Me and We	Vikings	Chocolate
	Autumn 1	Spring 1	Summer 1
	Privacy and Security To create and use strong and secure passwords. To	Safer Internet Day - 8 th February 2022	Health, Wellbeing and lifestyle
	explain how many free apps or services may read and	Whole School Assembly ■ To understand the schools acceptable use policy	To describe ways technology can affect healthy sleap and can describe same of the issues.
	share their private information (e.g. friends, contacts,	(AUP)	sleep and can describe some of the issues. To describe some strategies, tips or advice to
	likes, images, videos, voice, messages, location) with	(701)	promote healthy sleep with regards to
	others.		technology
Year 5	To explain how and why some apps may request or	Spring 1	(Unplugged activity)
I Cai J	take payment for additional content (e.g. in-app	Coding	
	purchases) and explain why they should seek permission from a trusted adult before purchasing.	 To create a game using appropriate software. 	
	(Unplugged activity)	 To use selection in programs and conditions in 	Summer 1
	(Onprofessionally)	repetition (inc forever) and selection (if	Creating Spreadsheets/Databases
		thenelse) commands.	 Use excel spreadsheets to input, and evaluate variables linked to fair trade chocolate.
		 To use more complex variables including random variables and a combination of inputs. 	 To be using filter and sort functions, formulae,
	Autumn 1	To predict an outcome, evaluate my work and	graphing and presenting data.
	Coding	identify errors.	To copy formulas to create tables of results.

	 To create programs using hour of code or scratch by decomposing them into smaller parts To use selection in programs and conditions in repetition (ink forever) and selection (if thenelse) commands. To predict an outcome, evaluate my work and identify errors. Autumn 2 Microsoft Office To explore Microsoft Office To use an appropriate search engine effectively using keywords to narrow search. To develop confidence with power-point, document creation, saving/ editing/ retrieving. To include hyperlinks and images. 	Spring 2 Online Bullying To recognise when someone is upset, hurt or angry online. To describe how to get help for someone that is being bullied online and assess when they themselves need to do or say something or tell someone. To explain how to block abusive users. To explain how they would report online bullying on the apps and platforms that they use and the importance of saving evidence. To describe the helpline services who can support them and what they would say and do if they needed their help (e.g. Child line). To understand the consequences of online bullying. (Unplugged activity)	 Present data well, labelling the axes and title. To choose the appropriate form of graph to represent the information searched from the database. (Suggested Software: Excel or other relevant software) Summer 2 Online Reputation and Copyright and Ownership To search for information about an individual online and create a summary report of the information they find. To describe ways that information about people online can be used by others to make judgments about an individual. To define the term copyright and learn about its effects such as viruses and copyright laws. To know that hyperlinks are not copyright. (Unplugged activity)
		Spring 2 E-Book Research project on the Vikings To use a book creator to create an eBook to share with others. The focus of the e-book will be linked to the Vikings. To take photos, design and make a front cover, create content for the e-Book and evaluate the e-Books and say what has worked well.	Film Making To create an advert using multimedia for fairtrade chocolate. To include voice overs and popular music. To edit a picture to remove items, add backgrounds using relevant software e.g., Photoshop. To use a 3D drawing app to create a realistic representation of real objects. To use cutaway and split screen tools in iMovie. To improve green screen clips (if relevant) using crop and resize and explore more creative ways to use the tool – e.g., wearing green clothes and the masking tool
	You, Me and We	What a difference 50 Years Makes	Ancient Greece
Year 6	Autumn 1 Privacy and Security To use different passwords for a range of online services. To describe effective strategies for managing those passwords (e.g. password managers, acronyms, stories). To know what to do if their password is lost or stolen.	Spring 1 Safer Internet Day - 8th February 2022 Whole School Assembly To understand the schools acceptable use policy (AUP) Spring 1 E-Book	Summer 1 Health, Wellbeing and lifestyle To describe common systems that regulate agerelated content (e.g. PEGI, BBFC, and parental warnings) and describe their purpose. To assess and action different strategies to limit the impact of technology on my health (e.g. night shift mode, regular breaks, correct posture, sleep, diet and exercise).

- To explain what app permissions are and can give some examples from the technology or services they use.
- To describe simple ways to increase privacy on apps and services that provide privacy settings e.g., https and a padlock.
- To describe ways in which some online content targets people to gain money or information illegally
- To describe strategies to help them identify such content (e.g. scams, phishing).

(Suggested App: Interland)

Autumn 2

Coding

- To write precise algorithms including repetition and selection and decompose code for effective debugging.
- To include multiple procedures and variables in their variables.
- To predict and evaluate the effects of changing variables.

- To use a book creator to create an eBook to share with a younger audience.
- To include, edit and adapt photos/digital drawings, insert sound, hyperlinks, videos (where needed).
- To use a 3D drawing app to include realistic objects
- To consider the presentation of the text.
- To develop higher level text editing skills.

Spring 2

Online Bullying

- To describe how to capture bullying content as evidence (e.g. screen-grab, URL, profile) to share with others who can help them.
- To identify a range of ways to report concerns both in school and at home about online bullying.
- To understand the term 'grooming' how this takes place online.
- To know a variety of solutions for dealing with cyberbullying.
- To understand the impact of sending inappropriate content online including other people's images without permission.

Spring 2

Film Making

- To produce a short documentary of London, of a specific time, during the last 50 years
- To create videos using a range of media green screen, animations, film and image.
- To use the green screen masking tool with more than one character. To add animated subtitles to their film to further enhance their creation.

(Greenscreen)

- To explain the importance of self-regulating their use of technology.
- To demonstrate the strategies to use to do this (e.g. monitoring my time online, avoiding accidents).

(Unplugged activity)

Summer 1

Networks

 To explore how networks work, understand computer networks including the internet, learn how they provide multiple services, such as the World Wide Web and explore the opportunities they offer for communication and collaboration.

(Unplugged)

To create a blog where they can add images, sounds, videos and personalise it for themselves. They will use it to keep a record of what they are doing in the classroom, or to share (via cloud or network) their thoughts and opinions with the school community.

(Seesaw platform, Google classroom)

Summer 1

Creating Spreadsheets/Databases

- Use excel spreadsheets to input, and evaluate variables.
- To be using filter and sort functions, formulae, graphing and presenting data.
- To copy formulas to create tables of results.
- To use auto filters to retrieve the information and create graphs such as bar charts, pie charts and scatter graphs.
- Present data well, labelling the axes and title.
- To choose the appropriate form of graph to represent the information searched from the database.

(Suggested Software: Excel or other relevant software)

Summer 2

Online Reputation and Copyright and Ownership

 To explain how they are developing an online reputation which will allow other people to form an opinion of them

	(Ung	 To describe some simple ways that help build a positive online reputation. To know how to select copyright free images and sounds. blugged activity)
		Summer 2
	. Cod	ling- Game design
		 To build 3D worlds e.g., Ancient Greece /multi-
		level design and programme characters to move.
		They will create a world, add characters and
		build paths.
		 To use more complex combinations of inputs and outputs.
		To predict and evaluate the effects of changing
		variables.
		Evaluate a partner's game.
		(Suggested App: Kodu)

Suggested E-Safety resources – Bandrunner, Thinkuknow, Interland, BBC own it, CEOP, Common Sense Media, LGFL, Espresso.

Suggested Animation resources: Stop Motion, I can Animate, Puppet Pals, stop, frame animator through LGFL.

Suggested E-Book resources - To Create a Story (on PC), ebook creator, ibooks.

Suggested coding software – Scratch, hour of code, code for life, Kodu, python, lightbot, J2Code, Espresso, Busythings, Probotix, logo,