



Computing Class Curriculum Plan Whole School 2021-2022

Intent	At Castle View Primary School, we aim, through effective computing teaching, to equip children to participate in a world of rapidly changing technology. We want to enable children to be confident with a range of technology such as; computers, iPads, laptops, programmable robots and video cameras to acquire, organise, store, manipulate, interpret, analyse, communicate and present information. Planning focuses on a combination of computer science, information technology and digital literacy. Computer science will give pupils the chance to understand the principles of how digital systems work with the opportunity to program their own instructions for games. Independent invention of programs throughout both key stages, enables pupils to gain an understanding of how computer science is applied in the real-world and equip pupils with the skills to do so. Information technology allows pupils to use technology purposefully and apply computer systems to solve real-world problems, such as finding things out using the internet, exchanging and sharing information, and reviewing, modifying and evaluating work. This aspect of computing is important for a broad and balanced technological education. Digital literacy within computing ensures that pupils know how to use the internet in a safe, respectful and responsible manner. Pupils will enhance their knowledge of e-safety, and ensure they are discerning when evaluating digital content. As a school, we also recognise the importance of cross-curricular learning for our pupils and therefore aim to make meaningful cross-curricular links with other subjects, as well as allowing opportunities to develop and refine a range of specific computing skills. Ultimately, we aim to enable children to become confident, creative and independent users of all types of digital technology.
EYFS	<u>Exploring technology:</u> <ul style="list-style-type: none">• To be able to take a photo on an iPad.• To recognise a computer.• To recognise a keyboard.• To recognise a mouse and begin to use.• To make a Beebot move by pressing buttons.• To talk about what happens to the Beebot when the buttons are pressed.• To create a picture on 2Paint using the mouse.• To understand that a phone is used to speak to others.• To talk to an adult when something happens that they are unsure of.
	<u>Key vocabulary</u> Beebot, button, iPad, computer, keyboard, mouse, 2paint, phone, safe, unsafe.
Sticky knowledge	<u>Sticky Knowledge:</u> <ul style="list-style-type: none">• A mouse is used to move and click on a computer.• A phone is used to call people.• A Beebot moves by pressing buttons.• A Beebot can move different ways.



	<ul style="list-style-type: none"> A picture can be painted on a screen.
Character and values	<p>Resilience – making a computer program achieve a specific outcome. Responsibility – taking care of school technology. Chivalry – presenting work through a variety of applications. Expression – demonstrating creativity through different applications.</p>
Year 1	<ul style="list-style-type: none"> Know about some of the applications of ICT and computing in everyday life Be able to use programs or apps to present information (pic collage, eBook, 2paint, Chatterpix) Be able to enter, save, retrieve and revise information (Purple Mash) Be able to plan and give instructions to make things happen using a floor robot (Beebot, 2code, 2go, DaisyDino) Be able to describe what they have done Understand the importance of using ICT and computing safely and respectfully and how to report any concerns <p>Key vocabulary: Algorithm, animation, blogging, browser, code, computer program, directional language, email, e-Safety, green screen, internet, network, program, QR code, Search bar/ engine, sequence, www (world wide web)</p>
Retrieval	<p>Retrieval</p> <ul style="list-style-type: none"> Can identify a mouse Can identify a keyboard Know how to take a picture on an electronic device
Sticky Knowledge	<p>Sticky Knowledge</p> <ul style="list-style-type: none"> Digital technology is use of electronic devices Technology is used every day We can use technology to communicate with anyone Know of and name digital programs and apps Aware not to talk to strangers online
Year 2	<ul style="list-style-type: none"> Know about some of the ways in which the use of ICT and computing affects people’s lives Be able to use programs, apps and computer networks to find, organise and classify information (2investigate, 2question) Be able to work with a range of simple tools such as text, tables, images, sounds and graphs (Word document, 2count, 2graph, pic collage, Ebook, Chatterpix) Be able to plan and give instructions to make things happen using a floor robot, program, or app (2go, 2code, Daisy Dino) Be able to use simulations to explore what happens in real and imaginary situations Understand the importance of using ICT and computing safely and respectfully and how to report any concerns <p>Key Vocabulary – algorithm, animation, blogging, browser, code, computer program, control, data, debug, digital literacy, directional language, ebook, email, e-safety, green screen, hardware, input, IP address, logic, memory, network, output, podcast, program, repetition, selection, simulation, software, QR code, www (world wide web)</p>
Retrieval	<p>Retrieval</p> <ul style="list-style-type: none"> Can name some apps and programs Know what digital technology is



	<ul style="list-style-type: none"> Understand different methods of communicating (i.e. internet, phone etc)
<u>Sticky Knowledge</u>	Sticky Knowledge <ul style="list-style-type: none"> Digital technology is part of our everyday life, at home and at school. Technology is used when we watch TV, use the phone, play a game on the computer or email a friend. Technology can be used to help with our learning in other subjects We can connect with people and places across the world There are many exciting programs, with more being developed every day
<u>Character and Values</u>	Curiosity – exploring the use of current technologies used throughout the world. Pride – presenting work via different applications. Respect – being mindful of how to treat others online when communicating. Resilience – willingness to try when using new or unfamiliar applications.
Year 3/4	<ul style="list-style-type: none"> Know about some applications of ICT and computing in different situations Know about some applications and implications of ICT and computing in everyday life (Green Screen, iMovie, Word Document, PowerPoint, Ebook, email) Be able to search effectively, using and evaluating information from a variety of sources (kiddle.co, Google, kidtopia, kidrex) Be able to make choices to gather information and solve problems Understand that different aspects of ICT and computing can be used safely, responsibly, respectfully and creatively to people's benefit
	Key vocabulary – algorithm, animation, blogging, browser, code, computer program, control, cyberbullying, data, debug, digital literacy, directional language, Ebook, email, e-safety, green screen, hardware, input, internet, IP address, logic, memory, network, output, password, podcast, program, QR code, repetition, search technologies, selection, simulation, sequence, server, software, switch, WWW (World Wide Web).
<u>Retrieval</u>	Retrieval <ul style="list-style-type: none"> Technology is used every day and allows us to communicate with others. Can identify different applications used in school. Can suggest possible ways to stay safe online. Able to report something that may make us feel uncomfortable online.
<u>Sticky Knowledge</u>	Sticky Knowledge <ul style="list-style-type: none"> Know what makes a strong, secure password to protect our personal information Know how to combat cyber bullying Know ways to communicate effectively online Know how presentation skills can help us to communicate our learning more effectively Using keywords enables us to carry out effective online searches Know how to gather information online and solve problems using different search strategies Understands how to use sequence, repetition and selection in our computer programming
<u>Character and Values</u>	Curiosity – exploring the use of current technologies used throughout the world. Pride – presenting work via different applications. Respect – being mindful of how to treat others online when communicating. Resilience – willingness to try when using new or unfamiliar applications. Articulation – presenting work to peers.



<p>Year 4/5</p>	<ul style="list-style-type: none"> • Know about some applications of ICT and computing in different jobs and work situations (Excel, PowerPoint, Word, Publisher, 2email) • Know about some of the ways in which the use of ICT and computing in different jobs and work situations affects people's lives • Be able to use search technologies effectively when gathering and interrogating information • Be able to search effectively, using and evaluating information from a variety of sources (kiddle.co, Google, kidtopia, kidrex) • Be able to select and use a range of programs or apps to support and present learning in other subjects (pic collage, Ebook, imovie, green screen, 2blog) • Be able to use ICT and computing to control events and write programs that accomplish specific goals (2go, 2code, 2email, Excel) • Be able to make choices to gather information and solve problems • Understand that different aspects of ICT and computing can be used safely, responsibly, respectfully and creatively to people's benefit • Know that the study of ICT and computing is concerned with applying technology to gather, use and exchange information safely and create, design and publish appropriate content • Understand the importance of considering audience and purpose when presenting information • Be able to collect, interpret and present their findings (2graph, 2count, 2chart, 2quiz) • Understand that all aspects of ICT and computing need to be used safely, respectfully and responsibly, recognizing unacceptable behaviour and reporting concerns
	<p>Key vocabulary – algorithm, animation, blogging, browser, client, code, computer program, control, cyberbullying, data, debug, digital literacy, directional language, Ebook, email, e-safety, green screen, hardware, input, internet, IP address, logic, memory, network, output, password, podcast, program, QR code, repetition, search technologies, selection, simulation, sequence, server, software, switch, WWW (World Wide Web).</p>
<p><u>Retrieval</u></p>	<p><u>Retrieval</u></p> <ul style="list-style-type: none"> • Aware of what makes a strong and secure password. • Know how to narrow a search using appropriate key words. • Coding is the instructions used to write a computer program.
<p><u>Sticky Knowledge</u></p>	<p><u>Sticky Knowledge</u></p> <ul style="list-style-type: none"> • How to keep our personal information safe • How to program our own online maths quiz • About different simulations and their uses • How to use data loggers to help with our learning in other subjects • How to create hyperlinks • How to use wearable technologies
<p><u>Character and Values</u></p>	<p>Pride – presenting work via different applications. Respect – being mindful of how to treat others online when communicating. Resilience – willingness to try when using new or unfamiliar applications. Articulation – presenting work to peers. Creativity – exploring new features within applications and using these to present work to peers. Responsibility – being aware of the appropriateness of what is shared online and that once shared, it cannot be retrieved.</p>
<p>Year 5/6</p>	<ul style="list-style-type: none"> • Know about an increasing number of ICT and computing applications for leisure, communication and work (2blog, Presentation, Excel, Word, Publisher, 2email) • Be able to evaluate and check the validity of their findings • Be able to manipulate and combine different forms of information and data from different sources (kiddle.co, Google, kidtopia, kidrex)



	<ul style="list-style-type: none"> • Be able to select which programs or apps to use to present information or data in the most effective and appropriate way (pic collage, eBook, imovie, green screen, 2graph, 2count) • Be able to use computer networks for communication and collaboration, exchanging ideas and information in different ways • Be able to design and write programs to accomplish specific goals, working with sequence, selection and repetition to control events (2code, 2go) • Be able to use ICT and computing to sense physical data • Be able to use ICT and computing-based models and simulations, working with various inputs and outputs • Understand that the quality of information affects the results of any enquiry • Understand that all aspects of ICT and computing need to be used safely, respectfully and responsibly, recognising unacceptable behaviour and reporting concerns <p>Key vocabulary – algorithm, animation, avatar, blogging, browser, client, code, computer program, computational thinking, control, cyberbullying, data, debug, digital literacy, directional language, Ebook, email, e-safety, green screen, hardware, hyperlink, input, internet, IP address, logic, memory, network, output, password, podcast, program, QR code, repetition, search technologies, selection, simulation, sequence, server, software, survey, WWW (World Wide Web).</p>
<u>Retrieval</u>	<p><u>Retrieval</u></p> <ul style="list-style-type: none"> • Understand that once information is shared online, it cannot be retrieved • Know which applications may be suitable for different tasks • Have a better understanding of a specific audience depending on the work being presented to them
<u>Sticky Knowledge</u>	<p><u>Sticky Knowledge</u></p> <ul style="list-style-type: none"> • How to search the internet using different operators • About the importance of evaluating online content • How to use online surveys as a research tool • How to use hyperlinks to create interactive stories • How to use and design our own wearable technologies
<u>Character and Values</u>	<p>Pride – presenting work via different applications. Respect – being mindful of how to treat others online when communicating. Articulation – presenting work to peers. Creativity – exploring new features within applications and using these to present work to peers. Responsibility – being aware of the appropriateness of what is shared online and that once shared, it cannot be retrieved.</p>