Davenham Church of England Primary School

Working Together, Playing Together, Serving God and Serving Others'

'...encourage one another and build each other up...'

1 Thessalonians 5:11.

LONG TERM PLAN COMPUTING

COMPUTING YEAR A	Year 1 and 2	Year 3 and 4	Year 5 and 6
	DIGITAL LITERACY COMPUTER SCIENCE INFORMATION TECHNOLOGY	DIGITAL LITERACY COMPUTER SCIENCE INFORMATION TECHNOLOGY	DIGITAL LITERACY COMPUTER SCIENCE INFORMATION TECHNOLOGY

EYFS COMPUTING END POINTS
I can use an Ipad or IWB to play games that have been put on for me.
I can use a Cd player or Tonie box to listen to stories.
I can programme a beebot to move forwards or backwards.
I can take photos on an Ipad.

COMPUTING KS1 YEAR A DIGITAL LITERACY (MY ONLINE LIFE)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP1 I can recognise the ways we use technology in our classroom, my home and community.	**We use technology for lots of different reasons.**
EP 2 I can use a search engine.	**You can find out lots of information online.**
EP3 I understand something online may upset me and know where to find help if anything does.	**Talk to someone you trust when something upsets you.**
EP4 I can communicate politely via the internet.	**Be kind when messaging online.**
EP5 I am aware that content online is owned by the person that created it.	**Stories, pictures and games online belong to people.**
EP6 I can describe how to behave online in ways that do not upset others and can give examples.	**Share nice words when you are online**
EP7 I can explain what personal Information is and keep my personal information safe.	**Keep details like your name, where you live and your birthday to yourself and people you trust.**
EP8 I know the rules of using technology at home or in school.	**Rules for using technology will keep you happy and safe.**
EP9 I understand that once something is posted you lose control if it.	**When you share something online, you might not get it back.**
	VOCAB search, online rules. share, trust
	ASSESSMENT ACTIVITY Create a video presentation incorporating what is private/personal information, who is a trusted adult, and awareness that communication should be polite.

COMPUTING KS1 YEAR A COMUTER SCIENCE (MY FRIEND THE ROBOT)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP10 I can follow a simple algorithm and create a simple sequence algorithm using symbols that solve a problem.	**You can follow easy step-by-step instructions, like a treasure map.**
EP11 I can independently debug simple sequence errors in a program.	**If you make a little mistake while giving instructions, you can figure out what went wrong and fix it.**
EP12 I can use logical reasoning to predict the outcome of simple programs.	**Before you even start, you can try to guess what's going to happen when you follow instructions.**
EP13 I can create algorithms that can be turned into a program using a robot or digital device.	**You can make your own special set of instructions, to tell a robot or a computer game what to do.**
	VOCAB robot, QR code, sequencing, design
	ASSESSMENT ACTIVITY Complete coding challenges using BeeBots and evidence what they did.

COMPUTING KS1 YEAR A INFORMATION TECHNOLOGY (MINI BEATS)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP14 I can use technology to create and present my ideas.	You can use computers, tablets, or other fun devices to make your own stories, drawings, or even videos.
EP15 I can collect and sort data.	You can gather interesting things like pictures, numbers, or facts and put them in order, so they make sense.
EP16 I can organise, store and retrieve digital work.	You can save the things you create on a computer and find them again later.
	VOCAB design, download, landscape, zoom, portrait, QR code, QR scanner,
	ASSESSMENT ACTIVITY Create an insect fact book using Book Creator

COMPUTING LKS2 YEAR A DIGITAL LITERACY (MY ONLINE LIFE)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP1 I know how to use the internet.	You can think carefully about the information you find online to decide if it's true and useful.
EP2 I can analyse information and make accurate searches.	Not everyone online is who they seem. If something feels wrong, it's important to talk to a grown-up.
EP3 I understand that I cannot trust everyone I talk to online, that I should be a good digital citizen and where to go for help if something upsets me online.	You should keep information about yourself private and only share it with people you trust. If ever in doubt, it's a good idea to ask a grown-up for help.
EP4 I am aware of what I should be sharing online and where to go for help if I need it.	Stories, pictures, and music online belong to people who made them. It's important to ask for permission before using someone else's work.
EP5 I understand what copyright is and why it is important.	Bullying could be when people send mean messages, share pictures and exclude people from games. It's always okay to seek help from a grown-up when seeing or experiencing bullying.
EP6 I can explain what bullying is and know where to go for help.	Some information is just for you and trusted people.
EP7 I know who I should be sharing information with and how to keep my data secure.	Realise that too much screen time isn't great and mixing in other fun activities like playing outside, reading books, or drawing is important for health.
EP8 I understand the impact technology can have on my health and it is important to have balanced approach.	Understand that how you act and appear online is part of your digital identity.
EP9 I understand the term identity and I can take appropriate measures to protect my own online identity.	
	VOCAB identify, personal information, trust, copyright, password, online bullying, online, communicate, share
	ASSESSMENT ACTIVITY Create a video presentation incorporating the term 'digital footprint', not to reveal information to people they know only online and to act appropriately/respectfully online.

COMPUTING LKS2 YEAR A COMUTER SCIENCE (DANCING ROBOT)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP10 I can use sequence, selection, repetition and / or variables in programs.	You can make your own mini-programs or games and if something doesn't work, you know how to fix it.
EP11 I can use decomposition to help me solve computing problems.	When a computer task seems big and tricky, you can split it into smaller steps to solve it easily.
EP12 I can use logical reasoning to predict and correct errors in algorithms and programs.	Before running your program, you can guess what it will do and if something unexpected happens, you know how to fix it.
EP13 I can plan, create and debug programs.	You can think up an idea, plan out how to make it into a program, and fix any problems.
EP14 I can explain how the internet works.	The internet is like a big web connecting computers all over the world so you can find information and talk to people far away.
EP15 I can explain how a search engine works.	Search engines are like online helpers that quickly look through the internet to find the answers you're looking for, just like finding the right book in a huge library.
EP16 I can work with various forms of input and output.	You can tell a computer what to do, by typing, clicking, or even speaking, and it will respond with pictures, sounds, or words.
	VOCAB font, command, algorithm, app, bugs, debugging, program, decision, sprite, processor
	ASSESSMENT ACTIVITY Create a Scratch project. Write a complex program, incorporating features such as inputs, repetition and variables. To recognise an error in an existing program and attempt to debug the program.

COMUTING LKS2 YEAR A INFORMATION TECHNOLOGY (BE DIGITALLY AWESOME)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP17 I can create digital content using a range of tools and media to improve its design.	You can use different tools and apps to make your stories, pictures, or videos even better!
EP18 I can collect, analyse, evaluate and present data and information.	You can collect interesting facts, sort them out, and then show them to others in organised ways.
EP19 I can create with technology.	You can use computers or tablets to make your own games, stories, or animations.
EP20 I can use advanced search tools.	You can use these advanced search tools to narrow down your search to specific types of information, dates, or even specific websites!
	VOCAB URL, shortcut, megabyte, gigabyte, digital content, app, font, hyperlink, multimedia
	ASSESSMENT ACTIVITY Use Google cloud platform to collect and present information.

COMPUTING UKS2 YEAR A DIGITAL LIITERACY (MY ONLINE LIFE)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP1 I can create a subject specific vlog and understand the potential risks of sharing content online.	Vlog is a video blog, which you can create about different subjects.
EP2 I can search for someone online and create a summary report about that person. I understand that judgements are made about people based on what's online about them.	You understand that what people find online can affect what they think about someone, and not everything online is true or fair.
EP3 I am aware that there are people online who may try to upset me and my group of friends. I can make a positive contribution to my online community.	You should speak up by reporting the bullying to a trusted adult, using in-platform reporting tools, and offering support to anyone who might be affected.
EP4 I can access school email and can send emails to classmates and teacher.	You should use emails appropriately keeping a polite and professional tone in your digital conversations.
EP5 I understand the need for copyright laws and I can explain when it is ok to use the work of others.	There are laws protecting people's creative work, like music, writing, and videos, and ask for permission before using it.
EP6 I understand the impact online bullying can have and I know what to do if I am the victim or witness online bullying.	A strong password uses a combination of uppercase letters, lowercase letters, numbers, and special symbols.
EP7 I can create a strong password and understand the real cost of some apps.	You must have a balanced approach to using technology for your health and well-being.
EP8 I understand the Digital 5 a Day plan and can discuss the positive and negative effects technology may have on my health.	People can pretend to be you online, and by having strong passwords you can stop this from happening.
EP9 I am aware that my identity can be copied by other users and take appropriate measure to minimise the risk of this happening.	
EP10 I can collaborate with others to develop and improve work.	
	VOCAB reputation, identify,
	ASSESSMENT ACTIVITY Create a video presentation incorporating how to maintain healthy positive relationships with others while online; consequences of making poor behaviour choices online and how to create a positive online image.

COMPUTING UKS2 YEAR A COMPUTER SCIENCE (TEAMS)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP11 I can use variables, conditional statements, procedures and repeat commands to improve my program/game.	You can make your programs or games even better by using sequences, selections, repetitions, and variables. This means you know how to order tasks, make choices, do things over and over, and use special placeholders to change things up in your creations.
EP12 I can decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program.	You can take a big problem and break it into smaller pieces to solve it more easily. This helps you design a plan (algorithm) for a specific goal, which you then turn into a program.
EP13 I can use logical reasoning to detect and debug a program.	This means you figure out where things go wrong and make them right.
EP14 I can design and write a program linked to physical systems and sensors.	You can design and write programs that connect to and control physical system (robot).
EP15 I can explore networks and internet traffic.	HTML stands for hyper text markup language and it one computer language to use to make websites
EP16 I can create a very basic web page using HTML.	.
	VOCAB bit, bytes, pixel, cache, decomposition, peripheral
	ASSESSMENT ACTIVITY Solve coding challenges to navigate a Lego structure using a Sphero.

COMPUTING UKS2 YEAR A INFORMATION TECHNOLOGY (MAKING AR GAMES)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP17 I can use text, photo, sound and video editing tools to refine my digital content.	Refining digital content enhances its quality, clarifies its message, appeals to the target audience, and corrects any errors, ensuring it's effective and professional.
EP18 I can use a spreadsheet/database to collect and record data.	You can use spreadsheets to organise data in different ways.
EP19 I can use unfamiliar technology to create content.	Break down challenges to make them clearer and easier to approach, this is called decomposition.
EP20 I can use a search engine and I am aware that not everything I read online is correct.	A fact, on the other hand, is an objective truth that can be proven with evidence, data, or reliable references.
EP21 I can record and produce a podcast / audio clip.	
	VOCAB streaming, YouTuber, vlog, HTML, upload, bandwidth, TCP/IP, LAN
	ASSESSMENT ACTIVITY Create a website using Adobe Page.

Computing YEAR B	Year 1 and 2	Year 3 and 4	Year 5 and 6
	DIGITAL LITERCY **COMPUTER SCIENCE** **INFORMATION TECHNOLOGY**	**DIGITAL LITERCY** **COMPUTER SCIENCE** **INFORMATION TECHNOLOGY**	**DIGITAL LITERCY** **COMPUTER SCIENCE** **INFORMATION TECHNOLOGY**

EYFS COMPUTING END POINTS
I can use an Ipad or IWB to play games that have been put on for me.
I can use a Cd player or Tonie box to listen to stories.
I can programme a beebot to move forwards or backwards.
I can take photos on an Ipad.

COMPUTING KS1 YEAR B DIGITAL LITERACY (MY ONLINE LIFE)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP17 I can give examples of how technology is used to communicate in school and beyond school.	**We use technology for lots of different reasons.**
EP18 I can use a search engine and I am aware that not everything I read online is true.	**You can find out lots of information online.**
EP19 I can use online services to communicate safely.	**Talk to someone you trust when something upsets you.**
EP20 I understand that once something it posted you lose control if it and know how to get help if I need to.	**Be kind when messaging online.**
EP21 I can give examples of online bullying behaviour, I understand the impact it may have and I know where to go for support.	**Stories, pictures and games online belong to people.**
EP22 I understand that some things online may upset me and that I cannot trust everyone online.	**Share nice words when you are online**
EP23 I know the rules of using technology at home or in school.	**Keep details like your name, where you live and your birthday to yourself and people you trust.**
EP24 I can explain what personal information is and understand the need for passwords to protect it	**Rules for using technology will keep you happy and safe.**
EP25 I am aware that content online is owned by the person that created it.	
	VOCAB search, online rules. share, trust
	ASSESSMENT ACTIVITY Create a video presentation incorporating the term 'digital footprint', not to reveal information to people they know only online and to act appropriately/respectfully online.

COMPUTING KS1 YEAR B COMPUTER SCIENCE (CODE A STORY)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP26 I can plan out an algorithm with a sequence of commands to carry out specific tasks.	**You can follow easy step-by-step instructions, like a treasure map.**
EP27 I can identify 'bugs' in computer programs and use the term debug in context.	**If you make a little mistake while giving instructions, you can figure out what went wrong and fix it.**
EP28 I can create a simple repeat loop.	**Before you even start, you can try to guess what's going to happen when you follow instructions.**
EP29 I can create a simple game program.	**You can make your own special set of instructions, to tell a robot or a computer game what to do.**
EP30 I can predict the outcome of a sequence.	
	VOCAB robot, QR code, sequencing, design
	ASSESSMENT ACTIVITY Create a Scratch project. Create a simple program, make predictions and correct mistakes (debug).

COMPUTING KS1 YEAR B INFORMATION TECHNOLOGY (PRESENTATIONS AND TYPING)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP31 I can use design and formatting to enhance my digital work.	You can use computers, tablets, or other fun devices to make your own stories, drawings, or even videos.
EP32 I can create digital content using more than one app or piece of software.	You can gather interesting things like pictures, numbers, or facts and put them in order, so they make sense.
EP33 I can collect and record data purposefully.	You can save the things you create on a computer and find them again later.
	VOCAB design, download, landscape, zoom, portrait, QR code, QR scanner,
	ASSESSMENT ACTIVITY Create a PowerPoint presentation about their digital life.

COMPUTING LKS2 YEAR B DIGITAL LITERACY (MY ONLINE LIFE)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP21 I can describe strategies for safe and fun experiences in a range of online social environments and I'm respectful to others online.	You can think carefully about the information you find online to decide if it's true and useful.
EP22 I can evaluate information presented to me to make informed choices about what is Fake News.	Not everyone online is who they seem. If something feels wrong, it's important to talk to a grown-up.
EP23 I can collaborate online to create digital content.	You should keep information about yourself private and only share it with people you trust. If ever in doubt, it's a good idea to ask a grown-up for help.
EP24 I am aware others can find information out about me by searching online.	Stories, pictures, and music online belong to people who made them. It's important to ask for permission before using someone else's work.
EP25 I know which technologies can be used for online bullying and I am considerate of others when posting myself.	Bullying could be when people send mean messages, share pictures and exclude people from games. It's always okay to seek help from a grown-up when seeing or experiencing bullying.
EP26 I understand that people may have a different online identity to that in real life and I'm able to interact with others.	Some information is just for you and trusted people.
EP27 I understand how photos can be altered digitally and discuss how they impact on my health.	Realise that too much screen time isn't great and mixing in other fun activities like playing outside, reading books, or drawing is important for health.
EP28 I am aware that some people want to access my data and can take appropriate measures to ensure this doesn't happen.	Understand that how you act and appear online is part of your digital identity.
EP29 I understand the need for copyright.	
	VOCAB identify, personal information, trust, copyright, password, online bullying, online, communicate, share
	ASSESSMENT ACTIVITY Online Safety Guide explaining what SMART rules are how to use safety features and why passwords should never be shared.

COMPUTING LKS2 YEAR B COMPUTER SCIENCE (HOUR OF CODE)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP30 I can design an algorithm to simulate a real-life situation.	You can make your own mini-programs or games and if something doesn't work, you know how to fix it.
EP31 I can test existing programs to see how they could be improved.	When a computer task seems big and tricky, you can split it into smaller steps to solve it easily.
EP32 I can design and write a program for a given purpose including specific programming features.	Before running your program, you can guess what it will do and if something unexpected happens, you know how to fix it.
EP33 I can solve an open-ended problem by breaking it up into smaller parts.	You can think up an idea, plan out how to make it into a program, and fix any problems.
EP34 I can understand the different methods of communication using the internet.	The internet is like a big web connecting computers all over the world so you can find information and talk to people far away.
	Search engines are like online helpers that quickly look through the internet to find the answers you're looking for, just like finding the right book in a huge library.
	You can tell a computer what to do, by typing, clicking, or even speaking, and it will respond with pictures, sounds, or words.
	You can tell a computer what to do, by typing, clicking, or even speaking, and it will respond with pictures, sounds, or words.
	VOCAB font, command, algorithm, app, bugs, debugging, program, decision, sprite, processor
	ASSESSMENT ACTIVITY Create a Scratch project. Create a program that uses repeat and variable commands. To use logical reasoning to detect potential problems.

COMPUTING LKS2 YEAR B INFORMATION TECHNOLOGY (ENDANGERED ANIMALS)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP35 I can use different layouts and effects to refine and improve my work.	You can use different tools and apps to make your stories, pictures, or videos even better!
EP36 I can create digital content using a range of software/app involving different media.	You can collect interesting facts, sort them out, and then show them to others in organised ways.
EP37 I can use a search engine and I am aware that not everything I read online is correct.	You can use computers or tablets to make your own games, stories, or animations.
	You can use these advanced search tools to narrow down your search to specific types of information, dates, or even specific websites!
	VOCAB URL, shortcut, megabyte, gigabyte, digital content, app, font, hyperlink, multimedia
	ASSESSMENT ACTIVITY Create a PowerPoint presentation about Yosemite National Park.

COMPUTING UKS2 YEAR B DIGITAL LITERACY (MY ONLINE LIFE)	
END POINTS	**ESSENTIANL KNOWLEDGE AND SKILLS**
EP 22 I understand that I need to create a positive online reputation.	Vlog is a video blog, which you can create about different subjects.
EP23 I am aware of the ways in which the media can shape our ideas about gender.	You understand that what people find online can affect what they think about someone, and not everything online is true or fair.
EP24 I support my friends to protect themselves and make good choices online, including reporting concerns to an adult.	You should speak up by reporting the bullying to a trusted adult, using in-platform reporting tools, and offering support to anyone who might be affected.
EP25 I am aware that if I need help, I keep asking for it until I get help.	You should use emails appropriately keeping a polite and professional tone in your digital conversations.
EP26 I know how to capture evidence of online bullying and how to report it.	There are laws protecting people's creative work, like music, writing, and videos, and ask for permission before using it.
EP27 I am aware of the need for positive online relationships and I am mindful of others' feelings at all times.	A strong password uses a combination of uppercase letters, lowercase letters, numbers, and special symbols.
EP28 I can explain how to protect my computer or device from harm on the Internet.	You must have a balanced approach to using technology for your health and well-being.
EP29 I know how to keep my data private and secure.	People can pretend to be you online, and by having strong passwords you can stop this from happening.
EP30 I understand the need for copyright and the consequences of ignoring it.	Vlog is a video blog, which you can create about different subjects.
	You understand that what people find online can affect what they think about someone, and not everything online is true or fair.
	You should speak up by reporting the bullying to a trusted adult, using in-platform reporting tools, and offering support to anyone who might be affected.
	VOCAB reputation, identify,
	ASSESSMENT ACTIVITY Online Safety Guide explaining what makes a secure username and password, what online identity or internet persona is and describing different types of online behaviours (online bullying, respectfulness).

COMPUTING UKS2 YEAR B COMPUTER SCIENCE (CHICKEN RUN / CROSSY ROAD)	
END POINTS	**ESSENTIANL KNOWLEDGE AND SKILLS**
EP31 I can design, plan & create a complex program.	You can make your programs or games even better by using sequences, selections, repetitions, and variables. This means you know how to order tasks, make choices, do things over and over, and use special placeholders to change things up in your creations.
EP32 I can test, debug and modify a program to improve it.	You can take a big problem and break it into smaller pieces to solve it more easily. This helps you design a plan (algorithm) for a specific goal, which you then turn into a program.
EP33 I can write a program using a text-based programming language.	This means you figure out where things go wrong and make them right.
EP34 I can use logical reasoning to detect and correct errors in algorithms and programs.	You can design and write programs that connect to and control physical system (robot).
EP35 I understand how computer networks work, including the internet.	HTML stands for hyper text markup language and it one computer language to use to make websites
EP36 I can talk about the way search results are selected and ranked.	
	VOCAB bit, bytes, pixel, cache, decomposition, peripheral
	ASSESSMENT ACTIVITY Create a Crossy Road project. Create a complex game within a block-based coding app that uses variables, event handling, selection ('if' and 'then'), procedures and repetition (loops) to increase programming possibilities. (Know that there is often more than one way to solve a problem in an algorithm.

COMPUTING UKS2 YEAR B INFORMATION TECHNOLOGY (VR WORLDS)	
END POINTS	**ESSENTIAL KNOWLEDGE AND SKILLS**
EP37 I can create and combine a range of media in order to produce digital content.	Refining digital content enhances its quality, clarifies its message, appeals to the target audience, and corrects any errors, ensuring it's effective and professional.
EP38 I can create a digital storyboard to plan a project or investigation.	You can use spreadsheets to organise data in different ways.
EP39 I can use a search engine and I am aware that not everything I read online is correct and that other people may be attempting to influence my opinions.	Break down challenges to make them clearer and easier to approach, this is called decomposition.
EP40 I can make presentations which use triggered animations, text, photos, sound and videos.	A fact, on the other hand, is an objective truth that can be proven with evidence, data, or reliable references.
	VOCAB streaming, YouTuber, vlog, HTML, upload, bandwidth, TCP/IP, LAN
	ASSESSMENT ACTIVITY Create a VR tour using the CoSpaces website/app.