



Amberley CE Primary School



St. James' CE Primary School,  
Coldwaltham



## Enabling every child to thrive and succeed

**At Arun Villages Federation, we care for EVERYONE. We embrace challenges and all opportunities to learn, recognising the value of education and persevering even when it feels difficult.**

**We are uncompromising in our aspirations, proud of our – and each other's - achievements and look forward to embracing the experiences the wider world offers.**

**Respect, Kindness, Honesty, Positivity and Teamwork**

## Computing

## **Intent:**

Across the Arun Villages Federation, we aim to prepare our children for their future by giving them the opportunities to gain knowledge and develop skills that will equip them for an ever-changing digital world. Gaining a deeper knowledge and understanding of Computing is of increasing importance for children's future both at home and for their future employment. Our Computing curriculum focuses on a progression of skills in digital literacy, computer science, information technology and online safety to ensure that children become competent in safely using, as well as understanding, technology.

Our intention is that Computing also supports children's creativity and cross curricular learning to engage children and enrich their experiences in school and beyond. We aim to develop 'thinkers of the future' through a modern, ambitious and relevant education in Computing. We want to equip pupils to use computational thinking and creativity that will enable them to become active participants in the digital world. It is important to us that the children understand how to use the ever-changing technology to express themselves, as tools for learning and as a means to drive their generation forward into the future.

Whilst ensuring they understand the advantages and disadvantages associated with online experiences, we want children to develop as respectful, responsible and confident users of technology, aware of measures that can be taken to keep themselves and others safe online.

Our aim is to provide a Computing curriculum that is designed to balance acquiring a broad and deep knowledge alongside opportunities to apply skills in various digital contexts. Beyond teaching computing discretely, we will give pupils the opportunity to apply and develop what they have learnt across wider learning in the curriculum, encompassing cultural and diverse icons throughout history who have had an important part to play in the development of technologies and methodologies which have had a lasting impact up to the modern day.

## **Implementation:**

Our curriculum is taught through discrete Computing lessons with links to the wider curriculum. Cross-curricular links are built into the discrete lessons. We follow the Teach Computing Scheme of work, which is mapped to the National

Curriculum, and resources to provide a progressive knowledge-based curriculum throughout the school. The units for key stages 1 and 2 are based on a spiral curriculum. This means that each of the themes is revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. This style of curriculum design reduces the amount of knowledge lost through forgetting, as topics are revisited yearly. It also ensures that connections are made even if different teachers are teaching the units within a theme in consecutive years.

**Impact:**

The children are assessed using criteria within the Teach Computing scheme of work and aligned to the National Curriculum outcomes at the end of each unit they complete. As a result of strong teaching and learning, children will be digitally literate and will be competent and safe users of technology, able to benefit from their learning and support their continued learning across the AVF of schools. As children become more confident in their abilities in Computing, they will become more independent, more creative and key life skills such as problem-solving, logical thinking and self-evaluation become second nature. We want children to understand the consequences of using the internet and that they are also aware of how to keep themselves safe online.

## Computing Progression Map – Whole School Cycle

Substantive Knowledge	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Digital Literacy/ E-Safety- Education For a Connected World</b>	<p>Use technology safely and responsibly</p> <p>Recognise acceptable/unacceptable behaviour;</p> <p>Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies</p>	<p>Use technology safely and responsibly</p> <p>Recognise acceptable/unacceptable behaviour</p> <p>Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies</p> <p>Recognise common uses of information technology beyond school</p>	<p>Use technology safely and responsibly</p> <p>Recognise acceptable/unacceptable behaviour</p> <p>Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies</p> <p>Recognise common uses of information technology beyond school</p>	<p>Use technology safely and respectfully and responsibly</p> <p>Recognise acceptable/unacceptable behaviour</p> <p>Identify a range of ways to report concerns about content and contact</p> <p>Be discerning in evaluating digital content</p> <p>Understand the opportunities networks offer for communication and collaboration</p>	<p>Use technology safely and respectfully and responsibly</p> <p>Recognise acceptable/unacceptable behaviour</p> <p>Identify a range of ways to report concerns about content and contact</p> <p>Be discerning in evaluating digital content</p> <p>Understand the opportunities networks offer for communication and collaboration</p>	<p>Use technology safely and respectfully and responsibly</p> <p>Recognise acceptable/unacceptable behaviour</p> <p>Identify a range of ways to report concerns about content and contact</p> <p>Be discerning in evaluating digital content</p> <p>Understand the opportunities networks offer for communication and collaboration</p>	<p>Use technology safely and respectfully and responsibly</p> <p>Recognise acceptable/unacceptable behaviour</p> <p>Identify a range of ways to report concerns about content and contact</p> <p>Be discerning in evaluating digital content</p> <p>Understand the opportunities networks offer for communication and collaboration</p>
<b>Coding/ Programming</b>		<p>Understand what algorithms are and how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions.</p> <p>Use logical reasoning to predict the</p>	<p>Understand what algorithms are and how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions.</p> <p>Use logical reasoning to predict the</p>	<p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>Design, write and debug programs that accomplish specific goals, including controlling or</p>	<p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>Design, write and debug programs that accomplish specific goals, including controlling or</p>	<p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>Design, write and debug programs that accomplish specific goals, including controlling or</p>	<p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>Design, write and debug programs that accomplish specific goals, including controlling or</p>

		behaviour of simple programs.	behaviour of simple programs.	<p>simulating physical systems. Solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs.</p> <p>Work with variables and various forms of input and output.</p> <p>Understand computer networks (including the internet) and how they can provide multiple services, such as the world wide web, and the opportunities they offer for communication and collaboration.</p> <p>Appreciate how search results are selected and ranked.</p>	<p>simulating physical systems. Solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs.</p> <p>Work with variables and various forms of input and output.</p> <p>Understand computer networks (including the internet) and how they can provide multiple services, such as the world wide web, and the opportunities they offer for communication and collaboration.</p> <p>Appreciate how search results are selected and ranked.</p>	<p>simulating physical systems. Solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs.</p> <p>Work with variables and various forms of input and output.</p> <p>Understand computer networks (including the internet) and how they can provide multiple services, such as the world wide web, and the opportunities they offer for communication and collaboration.</p> <p>Appreciate how search results are selected and ranked.</p>	<p>simulating physical systems. Solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs.</p> <p>Work with variables and various forms of input and output.</p> <p>Understand computer networks (including the internet) and how they can provide multiple services, such as the world wide web, and the opportunities they offer for communication and collaboration.</p> <p>Appreciate how search results are selected and ranked.</p>
<b>Information Technology</b>		Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Select, use and combine a variety of software, including internet services on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and	Select, use and combine a variety of software, including internet services on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and	Select, use and combine a variety of software, including internet services on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and	Select, use and combine a variety of software, including internet services on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and

				presenting data and information.  Use search technologies effectively.	presenting data and information.  Use search technologies effectively.	presenting data and information.  Use search technologies effectively.	presenting data and information.  Use search technologies effectively.
<b>Disciplinary Knowledge</b>							
<b>Digital Literacy/ E-Safety-Education For a Connected World</b>	<p><b><u>Online content and critical thinking</u></b> I can recognise some ways in which the internet can be used to communicate</p> <p>I can give examples of how I (might) use technology to communicate with people I know</p> <p><b><u>Staying safe online</u></b> I can talk about how I can use the internet to find things out</p> <p>I can identify devices I could use to access information on the internet</p> <p>I can give simple examples</p>	<p><b><u>Online content and critical thinking</u></b> Know how to safely access information online</p> <p>Use key terms when describing actions and information - true, real, believe, made up etc.</p> <p><b><u>Self-image, mental health and well-being</u></b> Understand the different ways we can go 'online'</p> <p>To consider why other people go online</p> <p>To identify what is positive about self and others</p> <p><b><u>Staying safe online</u></b> I can identify rules to keep us safe and healthy when we are using technology in and beyond the home</p>	<p><b><u>Online content and critical thinking:</u></b> Identify how to access information on the internet on more than one type of device</p> <p>Identify different methods of finding information – search engines, voice activation, information sites</p> <p>Know how to use web pages to access information safely</p> <p>Begin to understand that not all information online is true and that it can be questioned</p> <p><b><u>Self-image, mental health and well-being:</u></b> Understand what is meant by being online and offline</p>	<p><b><u>Online content and critical thinking:</u></b> Know what to do if someone wants information from me</p> <p>Know who I am sharing information with</p> <p>Know what others online tell me may be untrue and can begin to spot the signs of this</p> <p>Be able to spot things that may be false online</p> <p><b><u>Self-image, mental health and well-being:</u></b> To know the importance of managing time online and identify the potential harms of overuse</p> <p>To know what healthy online behaviours are</p>	<p><b><u>Online content and critical thinking:</u></b> Be able to explain key concepts in order to assess their validity and safety (truth, false, safe, unsafe, sceptical, trusting, question)</p> <p>Consider and understand why information that appears often may not always be factual or true.</p> <p><b><u>Self-image, mental health and well-being:</u></b> Be able to use a range of strategies to manage time online</p> <p>To know that people can look different online from how they are offline</p> <p>Be able to identify ways in which people might make themselves appear</p>	<p><b><u>Online content and critical thinking:</u></b> Know what to do if someone wants to meet me</p> <p>Consider why false or inaccurate information may be posted online</p> <p>Explain why information that is in the media and on a large number of sites may still be inaccurate or untrue</p> <p>Understand some people may give me information to manipulate my actions and thinking online</p> <p>Demonstrate actions that can be taken to keep self-safe from others presenting a false picture of themselves.</p>	<p><b><u>Online content and critical thinking:</u></b> Describe how some online information can be opinion but appear to be fact and consider why this may happen</p> <p>Demonstrate ways to find out what is fact before acting upon it; making safe choices.</p> <p>Know of the rules around using someone else's work or ideas</p> <p><b><u>Self-image, mental health and well-being:</u></b> Consider what is unique about me that is part of who i am and how this may be affected by what i put online</p> <p>Explore how parts of identity can be seen as positive or negative and</p>

	<p>of how to find information (e.g. search engine, voice activated searching)</p> <p><b><u>Online reputation</u></b> I can identify ways that I can put information on the internet</p> <p>I can recognise that I can say 'no' / 'please stop' / 'I'll tell an adult' / 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset</p> <p>I can explain how this could be either in real life or online</p> <p><b><u>Online relationships and cyberbullying</u></b> I can describe ways that some people can be unkind online I can offer examples of how this can</p>	<p>I can give examples of some of these rules</p> <p>I can discuss how we benefit from these rules</p> <p><b><u>Online reputation</u></b> Understand that the information I put online leaves a digital footprint</p> <p>Understand that my digital footprint can be big or small, helpful or hurtful, depending on I manage it</p> <p><b><u>Online relationships and cyberbullying</u></b> Use the internet with adult support to communicate with people I know</p>	<p>Know that we can see ourselves reflected online as well as seeing people who are not the same</p> <p>Understand and celebrate that there are similarities and differences online as well as offline</p> <p>Be able to describe how online posts may impact on how people feel about themselves and others</p> <p><b><u>Staying safe online:</u></b> Know about privacy settings and how to apply them</p> <p>Know how to keep the information on my device safe</p> <p>Describe more detailed examples of information that is personal to an individual and know when it may not be appropriate to post this online (e.g. address, names, school etc)</p> <p>Demonstrate strategies for keeping my information private</p>	<p>( time spent online, too long etc)</p> <p>To recognise that some people may pretend to be someone else online and why</p> <p>Be able to identify feelings associated with this (feel sad, worried, uncomfortable or frightened)</p> <p><b><u>Staying safe online:</u></b> Be able to demonstrate what makes a strong password</p> <p>Know how passwords should be managed</p> <p>Know what passwords are and use them effectively in different contexts</p> <p>Know how to keep information safe online</p> <p><b><u>Online reputation:</u></b> Have a good awareness of my own online profile – who can see what and how this can be manipulated</p>	<p>different online than how they look offline</p> <p>To know how to seek help when feelings are impacted by the way others appear online</p> <p><b><u>Staying safe online:</u></b> Know how to manage my online security and privacy</p> <p>Be able to identify how to keep information private</p> <p><b><u>Online reputation:</u></b> Recognise that information can stay online and could be copied</p> <p>Explain ways that some of the information about me online could have been created, copied or shared by others</p> <p>Know what the recommended age limits are for different social media sites, apps and games (focus on social media)</p> <p>Describe what is appropriate to say and do in different</p>	<p><b><u>Self-image, mental health and well being:</u></b> Consider how my online behaviours impact on who I am and how this can be both positive and negative</p> <p>To consider what type of influences can at times encourage us to spend too much time online</p> <p>Be able to recognise how I am different and similar to others</p> <p>Be able explain how what we post online or see can impact negatively on how people feel about our self and others</p> <p>Understand how my online identity can be different to my 'real life' identity</p> <p>Understand a range reasons why people may pretend to be someone else online and how they might go about this</p>	<p>recognise ways to have a positive impact on others</p> <p>Know that identity online can be presented in many ways including gender</p> <p>Consider how the media can shape ideas about gender</p> <p>Be able to challenge gender representation online and consider how this impacts on our offline identity</p> <p>Know a range of organisations that would provide a safe space for me to talk about how i see myself compared to others</p> <p>To know how to seek help when feelings are impacted by the way others appear online</p> <p><b><u>Staying safe online:</u></b> Be able to use online tools such as flagging, reporting and blocking to mitigate the risk</p> <p>Consider how we keep information safe when using apps</p>
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	<p>make others feel.</p>		<p>Know rules for home and school about keeping personal information safe</p> <p>Consider why it is appropriate and safe to ask a trusted adult if unsure about sharing personal information online</p> <p><b><u>Online reputation:</u></b> Understand that the information I put online leaves a digital footprint</p> <p>Understand that my digital footprint can be big or small, helpful or hurtful, depending on I manage it</p> <p>Know that I need to be careful before I share anything about myself or others online</p> <p>Know who I should ask if I am not sure if I should put something online</p> <p>Understand the risks of putting or sharing information on the internet</p>	<p>Describe what information I should not put online without asking a trusted adult first</p> <p>Know what the recommended age limits are for different social media sites, apps and games (focus on games/apps)</p> <p>Know what happens to my information online and how it could be used for harm</p> <p><b><u>Online relationships and cyberbullying:</u></b> Assess when you need to take action and explain what to do if you are concerned about an online relationship</p> <p>Explain the difference between online bullying and good-natured teasing online</p> <p>Form positive relationships online</p> <p>Identify the range of online platforms available and what you can do on them</p>	<p>online settings/ platforms (e.g. Opinions, values, information, shares, 'likes', 'forwards')</p> <p>Describe how to effectively challenge content that influences my reputation negatively</p> <p><b><u>Online relationships and cyberbullying:</u></b> Understand the different places and ways people can communicate online</p> <p>Describe how online technology allows access to and communication with culturally diverse communities beyond our immediate social group</p> <p>Give examples of how to adapt your behaviour to engage positively with those groups taking into account gender, cultural sensitivity, political and religious beliefs etc.</p> <p>Define what cyberbullying is</p>	<p><b><u>Staying safe online:</u></b> Know how to manage privacy settings and safety features</p> <p>Demonstrate an understanding of how apps work and use information that we enter into them e.g. Contact, images, voice notes etc)</p> <p>Consider how we keep information safe when using apps</p> <p>Identify online content and ideas ownership</p> <p><b><u>Online reputation:</u></b> Describe how others can find out information about me by looking online</p> <p>Know what the recommended age limits are for different social media sites, apps and games (focus on social media)</p> <p>Know how to use reporting tools and features such as blocking other users</p>	<p>identify online content and ideas ownership</p> <p><b><u>Online reputation:</u></b> Explain how what i write online can affect my school, family or social group, or future opportunities</p> <p>Know what the recommended age limits are for different social media sites, apps and games (focus on social media)</p> <p>Understand how my digital footprint can impact on my future</p> <p>Build an online presence using a range of technologies that provide a positive representation of who I am</p> <p><b><u>Online relationships and cyberbullying:</u></b> Give examples of how to make positive contributions to online debates and discussions</p> <p>Explain how and why people who you communicate with online may try to influence others</p>
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			<p><b><u>Online relationships and cyberbullying:</u></b> Explain some risks of communicating online with others I don't know well</p> <p>Explain why I should be careful who I trust online and what information I can trust</p> <p>Explain what it means to 'know someone' online and why this might be different from knowing someone in real life</p> <p>Explain what is meant by 'trusting someone online' and why this is different from 'liking someone online'</p> <p>Identify how to behave positivity online</p> <p>Explain why it is important to be considerate, kind and respectful to people online</p> <p>Describe ways that some people can be unkind online and how this can make others feel</p>	<p>Describe strategies for safe and fun experiences in a range of online social environments</p> <p>Describe how to behave online in ways that do not upset others</p> <p>Identify the different roles people can play in cyberbullying</p> <p>Identify cyberbullying in a range of contexts and work with others online to challenge those behaviours to prevent them recurring</p> <p>Identify the impacts of cyberbullying and know where to go to get help</p> <p>Give examples of effective strategies which might help myself or others</p> <p>Identify and demonstrate actions to support others who are experiencing difficulties online</p>	<p>Identify some online technologies where cyberbullying might take place</p> <p>Use the internet with adult support to communicate with people i know</p> <p>Understand the ways in which you can check that someone is who they say they are</p> <p>Know how to spot potentially negative relationships online</p> <p>Identify cyberbullying in a range of contexts and work with others online to challenge those behaviours</p> <p>Identify the impacts of cyberbullying and know where to go to get help</p> <p>Give examples of effective strategies which might help myself or others</p> <p>Identify and demonstrate actions to support others who are experiencing difficulties online</p>	<p>Explain strategies to manage and protect my digital footprint</p> <p>Explain the importance of my online reputation (especially to my future career) and describe ways of managing this</p> <p><b><u>Online relationships and cyberbullying:</u></b> Understand the ways in which you can check that someone is who they say they are</p> <p>Understand ways to use your online community for positive means</p> <p>Give examples where positive contributions have effected change in an online community (e.g. Gamergate, gaming communities, social media)</p> <p>Explain strategies for assessing the degree of trust you place in people or organisations online</p> <p>Describe the laws that govern online behaviour and how</p>	<p>negatively e.g. Grooming; radicalisation; coercion</p> <p>Describe the initial signs of potentially problematic situations e.g. Grooming, cyberbullying</p> <p>Identify and demonstrate actions to support others who are experiencing difficulties online</p> <p>Describe a range of different types of cyberbullying behaviours and assess when these are occurring (e.g. Homophobic, racist, gender, exclusion)</p>
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			<p>Identify behaviours that may be seen as bullying in different online contexts</p> <p>Know where/who to go to if mine or others' feelings were negatively affected by someone online</p>			<p>they inform what is acceptable or legal (e.g. Sexting (and related terminology), trolling, harassment, stalking)</p> <p>Describe actions i could take if i or someone else experiences or is targeted by illegal online behaviour</p> <p>Recognise cyberbullying can be different to bullying in the physical world and describe some of those differences</p>	
<b>Coding/ Programming</b>	<p>I can follow simple oral instructions</p> <p>I can spot simple patterns, such as similarities and differences</p> <p>I can sequence simple familiar tasks</p> <p>I can use a mouse, touchscreen, appropriate access device to target and select options on screen</p>	<p><b><u>Computational Thinking</u></b> I can understand what algorithms are</p> <p>I can write simple algorithms</p> <p>I can understand the sequence of algorithms is important</p> <p>I can debug simple algorithms (PROBLEM SOLVE)</p> <p><b><u>Coding and Programming</u></b> I can create a simple program on a digital device e.g. Bee Bot/Pro-Bot</p>	<p><b><u>Computational Thinking:</u></b> I can create algorithms for my programming projects</p> <p>I can decompose projects (such as an animation) into steps to create an algorithm</p> <p>I can identify patterns in an algorithm</p> <p><b><u>Coding and Programming:</u></b> I can design a program</p> <p>I can create a program using a design</p>	<p><b><u>Computational Thinking:</u></b> I can create algorithms for my programming projects</p> <p>I can decompose projects (such as an animation) into steps to create an algorithm</p> <p>I can identify patterns in an algorithm</p> <p><b><u>Coding and Programming:</u></b> I can design a program</p> <p>I can create a program using a design</p>	<p><b><u>Computational Thinking:</u></b> I can write more precise algorithms for use when programming</p> <p>I can use simple selection and repetition in algorithms</p> <p>I can use logical reasoning to detect and correct errors in programs</p> <p><b><u>Coding and Programming:</u></b> I can use repetition in programs (FOREVER)</p>	<p><b><u>Computational Thinking:</u></b> I can solve problems by decomposing them into smaller parts to code</p> <p>I can use logical reasoning to explain how a variety of algorithms work</p> <p>I can evaluate the effectiveness of algorithms</p> <p><b><u>Coding and Programming:</u></b> I can use a variety of selection commands when coding (IF, THEN)</p>	<p><b><u>Computational Thinking:</u></b> I can write precise algorithms for use when programming</p> <p>I can decompose a design or code to focus on specific parts</p> <p>I can recognise and make use of patterns in my design and code</p> <p>I can critically evaluate my work and suggest improvements</p> <p><b><u>Coding and Programming:</u></b></p>

	<p>I can input a simple sequence of commands to control a digital device with support</p>	<p>I can use sequence in programs</p> <p>I can locate and fix bugs in my program (PROBLEM SOLVE)</p> <p>I can match a command to an outcome</p> <p>I can predict the outcome of a command on a device</p> <p>I can run a command on a device</p> <p>I can follow instructions.</p> <p>I can give directions</p> <p>I can recall words that can be acted out</p> <p>I can compare forwards and backwards movements</p> <p>I can predict the outcome of a sequence involving forwards and backwards commands</p> <p>I can start a sequence from the same place</p> <p>I can compare left and right turns</p>	<p>I can create a sequence of code</p> <p>I can work with different inputs</p> <p>I can evaluate my program</p> <p><b><u>Computer Networks:</u></b></p> <p>I understand that computers/printers in a school are connected together in a network</p> <p>I understand why computers are networked</p> <p>I understand the difference between the Internet and the World Wide Web (WWW)</p>	<p>I can create a sequence of code</p> <p>I can work with different inputs</p> <p>I can evaluate my program</p> <p><b><u>Computer Networks:</u></b></p> <p>I understand that computers/printers in a school are connected together in a network</p> <p>I understand why computers are networked</p> <p>I understand the difference between the Internet and the World Wide Web (WWW)</p>	<p>I can use simple selection in programs (IF, THEN)</p> <p>I can work with different input/outputs (Keyboard/Mouse)</p> <p>I can use logical reasoning to systematically detect and correct errors in programs</p> <p><b><u>Computer Networks:</u></b></p> <p>I understand that servers on the Internet are located across the planet</p> <p>I understand how email is sent across the Internet</p> <p>I understand how the Internet enables us to collaborate</p>	<p>I can use conditions in repetition commands (FOREVER)</p> <p>I can work with variables (TIMER/SCORE)</p> <p>I can create programs for a specific audience or purpose</p> <p>I can evaluate my work and identify errors</p> <p><b><u>Computer Networks:</u></b></p> <p>I understand how we view web pages on the Internet</p> <p>I use search technologies effectively and appropriately</p> <p>I appreciate how pages are ranked in a search engine</p>	<p>I can use a range of sequence, selection and repetition commands to implement my design (IF, THEN, FOREVER)</p> <p>I can identify the need for, and work with, variables (TIMER/SCORE)</p> <p>I can identify and write generic code for use across multiple projects</p> <p>I can critically evaluate my work and suggest improvements</p> <p><b><u>Computer Networks:</u></b></p> <p>I understand what HTML is and recognize HTML tags</p> <p>I know a range of HTML tags and can remix a web page</p> <p>I can create a webpage using HTML</p>
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		<p>I can experiment with turn and move commands to move a robot</p> <p>I can predict the outcome of a sequence involving up to four commands</p> <p>I can choose the order of commands in a sequence</p> <p>I can debug my program</p> <p>I can explain what my program should do</p> <p>I can identify several possible solutions</p> <p>I can plan two programs</p> <p>I can use two different programs to get to the same place</p> <p><b><u>Computer Networks</u></b></p> <p>I can explain technology as something that helps us</p> <p>I can locate examples of technology in the classroom</p>					
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		I can explain how these technology examples help us					
<b>Information Technology</b>	<p><b><u>Word Processing/ Typing</u></b> I can play on a touch screen game and use computers/keyboards/mouse in role play</p> <p>I can type letters with increasing confidence using a keyboard and tablet</p> <p>I can dictate short, clear sentences into a digital device</p> <p><b><u>Data Handling</u></b> I can identify a chart</p> <p>I can sort physical objects, take a picture and discuss what I have done</p>	<p><b><u>Word Processing/ Typing</u></b> I can name the main parts of a computer</p> <p>I can switch on and log into a computer</p> <p>I can use a mouse to click and drag</p> <p>I can use a mouse to open a program</p> <p>I can click and drag to make objects on a screen</p> <p>I can use a mouse to create a picture</p> <p>To use a keyboard to type on a computer</p> <p>I can say what a keyboard is for</p> <p>I can type my name on a computer</p> <p>I can save my work to a file</p>	<p><b><u>Word Processing/Typing:</u></b> I can use the space bar only once between words and use touch to navigate to words letter to edit</p> <p>I can copy and paste images and text</p> <p>Use caps locks for capital letters</p> <p>I can add images alongside text in a word processed document</p> <p>I can dictate longer passages into a digital device with accurate punctuation</p> <p><b><u>Data Handling:</u></b> I can sort digital objects into a range of charts such as Venn diagrams, Carroll diagrams and bar charts using different apps and software</p> <p>I can orally record myself explaining what the data shows me</p>	<p><b><u>Word Processing/Typing:</u></b> I can use index fingers on keyboard home keys (f/j), use left fingers for a/s/d/f/g, and use right fingers for h/j/k/l</p> <p>I can edit the style and effect of my text and images to make my document more engaging and eye-catching, for example, borders and shadows</p> <p>I can use cut, copy and paste to quickly duplicate and organise text.</p> <p><b><u>Data Handling:</u></b> I can create my own sorting diagram and complete a data handling activity with it using images and text</p> <p>I can start to input simple data into a spreadsheet</p> <p><b><u>Animation:</u></b> I can create animations of faces to speak in role with</p>	<p><b><u>Word Processing/Typing:</u></b> I can combine digital images from different sources, objects, and text to make a final piece in a variety of tasks: posters, documents, eBooks, scripts, leaflets</p> <p>Confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text</p> <p>Use font sizes appropriately for audience and purpose</p> <p>Use spell check and thesaurus including through Siri and other AI technology</p> <p><b><u>Data Handling:</u></b> I can input data into a spreadsheet and export the data in a variety of ways: charts, bar charts, pie charts</p> <p>I understand how data is collected.</p>	<p><b><u>Word Processing/Typing:</u></b> I can start to apply other useful effects to my documents such as hyperlinks</p> <p>I can import sounds to accompany and enhance the text in my document</p> <p>I can organise and reorganise text on screen to suit a purpose</p> <p><b><u>Data Handling:</u></b> I can create and publish my own online questionnaire and analyse the results</p> <p>I can use simple formulae to solve calculations including =sum and other statistical functions</p> <p><b><u>Animation:</u></b> I can add green screen effects to a stop motion animation</p> <p>I can create flip book animation using digital drawings and</p>	<p><b><u>Word Processing/Typing:</u></b> I can confidently choose the best application to demonstrate my learning</p> <p>I can format text to suit a purpose</p> <p>I can publish my documents and discuss the audience and purpose of my content</p> <p><b><u>Data Handling:</u></b> I can write spreadsheet formula to solve more challenging maths problems</p> <p>I can create and publish my own online quiz with a range of media (images and video)</p> <p><b><u>Animation:</u></b> I can plan, script and create an animation to explain a concept or tell a story</p> <p>I can mix animations and videos recordings</p>

	<p><b><u>Animation</u></b> I can animate a simple image to speak in role</p> <p>I can create a simple animation to tell a story including more than one character</p> <p><b><u>Video Creation</u></b> I know the difference between a photograph and video</p> <p>I can record a short film using the camera</p> <p>I can record and play a film</p> <p>I can watch films back</p> <p><b><u>Photography and Digital Art</u></b> I can take a photograph</p> <p>I can take a photograph and use it in an app ] I can use a painting app and explore the paint and brush tools</p>	<p>To use the keyboard to edit text</p> <p>I can open my work from a file</p> <p>I can use the arrow keys to move the cursor</p> <p>I can delete letters</p> <p><b><u>Data Handling</u></b> I can sort images or text into two or more categories on a digital device</p> <p>I can collect data on a topic</p> <p>I can create a tally chart and pictogram</p> <p><b><u>Animation</u></b> I can create an animation to tell a story with more than one scene</p> <p>I can add my own pictures to my story animation</p> <p><b><u>Video Creation</u></b> I can record a film using a camera/camera app</p>	<p>I can create a branching database using questions</p> <p><b><u>Animation:</u></b> I can create a simple stop motion animation</p> <p>I can explain how an animation/flip book works</p> <p><b><u>Video Creation:</u></b> I can use tools to add effects to a video</p> <p>I can begin to use green screen techniques with support</p> <p><b><u>Photography and Digital Art:</u></b> I can edit a photo (crop, filters, mark up etc)</p> <p>I can select and use tools to create digital imagery - controlling the pen/brush and using the fill tool</p> <p>I can cut images with accuracy to layer on other images.</p> <p><b><u>Sound:</u></b> I can record my own sound effects and use them to retell a story</p>	<p>more life-like realistic outcomes</p> <p>I can use animation tools in presenting software to create simple animations</p> <p>I can create stop-motion animation using my own writing as the text</p> <p><b><u>Video Creation:</u></b> I can sequence clips of mixed media in a timeline and record a voiceover</p> <p>I can trim and cut film clips and add titles and transitions</p> <p>I can create my own movie trailer</p> <p><b><u>Photography and Digital Art:</u></b> I can confidently take and manipulate photos</p> <p>I can create a digital image using a range of tools, pens, brushes and effects</p> <p><b><u>Sound:</u></b> I can record my own composition or music and edit this as required</p>	<p>I can create my own online multiple choice questionnaire</p> <p><b><u>Animation:</u></b> I can take multiple animations of a character I have physically created/drawn and edit them together for a longer video</p> <p>I can use software to create a 2D/3D animated story</p> <p><b><u>Video Creation:</u></b> I can add music and sound effects to my films</p> <p>I can add animated titles and transitions</p> <p>I can add simple subtitles to a video clip</p> <p><b><u>Photography and Digital Art:</u></b> I can take a digital photo and use camera settings</p> <p>I can manipulate my pictures/shapes to create digital art</p> <p><b><u>Sound:</u></b> I can record an audiobook using my</p>	<p>export as a Gif or video</p> <p><b><u>Video Creation:</u></b> I can record video content and edit it using Movie Maker</p> <p>I can evaluate video tools to best explain my understanding</p> <p>I can create green screen clips and insert these into my video</p> <p><b><u>Photography and Digital Art:</u></b> I can enhance digital photos and images using crop, brightness and resize tools</p> <p>I can explain how to Photoshop images and how this is used in the media</p> <p><b><u>Sound:</u></b> Record a voice over and edit sound clips (volume, pitch, fade, effect) to create a podcast.</p>	<p>of myself to create video interviews</p> <p>I can choose and create different types of animations to best explain my learning</p> <p><b><u>Video Creation:</u></b> I can create videos using a range of media - green screen, animations, film and image</p> <p>I can add animated subtitles to my film to further enhance my creation</p> <p><b><u>Photography and Digital Art:</u></b> I can crop and edit a picture to remove items, add backgrounds, merge 2 photos</p> <p>I can evaluate and discuss images explaining effects and filters that have been used to enhance the media</p> <p><b><u>Sound:</u></b> I can add a voice over and edit sound clips (volume, pitch, fade, effect) to use in a film or radio broadcast (podcast)</p>
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	<p><b>Sound</b> I can record sounds with different resources</p> <p>I can find ways to change your voice (tube, tin can, shouting to create an echo)</p> <p>I can record sounds/voices in storytelling and explanations</p>	<p>I can select images and record a voiceover</p> <p>I can highlight and zoom into images as I record on an iPad</p> <p><b>Photography and Digital Art</b> I can edit a photo with simple tools</p> <p>I can use a paint/drawing app to create a digital image</p> <p>I can begin to cut out an image to layer on another image</p> <p><b>Sound</b> I can create a sequence of sounds (instruments, apps/software)</p> <p>I can explore short and long sounds.</p> <p>I can record my voice and add different effects.</p>		<p>I can add sound effects to presentations or programming</p>	<p>own writing as the text Edit sound effects for a purpose</p>		<p>Compose and record a soundtrack that can be added to a film/drama project</p>
Key Vocabulary							
Assessment	<p><b>e-Safety</b> I can ask an adult when I</p>	<p><b>e-Safety</b> I can keep my password private.</p>	<p><b>e-Safety</b> I can explain why I need to keep my password and</p>	<p><b>e-Safety</b> I can talk about what makes a secure</p>	<p><b>e-Safety</b> I choose a secure password when I am using a website.</p>	<p><b>e-Safety</b> I protect my password and other personal information.</p>	<p><b>e-Safety</b> I protect my password and other personal information.</p>

	<p>want to use the Internet.</p> <p>I can tell an adult when something worrying or unexpected happens while I am using the Internet.</p> <p>I can be kind to my friends.</p> <p>I can talk about the amount of time I spend using a computer / tablet / game device.</p> <p>I am careful with technology devices.</p> <p><b>Programming</b> I can make a floor robot move.</p> <p>I can use simple software to make something happen.</p> <p>I can make choices about the buttons and icons I press, touch or click on.</p>	<p>I can tell you what personal information is.</p> <p>I can tell an adult when I see something unexpected or worrying online.</p> <p>I can talk about why it's important to be kind and polite.</p> <p>I can recognise an age appropriate website.</p> <p>I can agree and follow sensible e-Safety rules.</p> <p><b>Programming</b> I can give instructions to my friend and follow their instructions to move around.</p> <p>I can describe what happens when I press buttons on a robot. I can press the buttons in the correct order to make my robot do what I want.</p> <p>I can describe what actions I will need to do to make something happen and begin to use the word algorithm.</p>	<p>personal information private.</p> <p>I can describe the things that happen online that I must tell an adult about.</p> <p>I can talk about why I should go online for a short amount of time.</p> <p>I can talk about why it is important to be kind and polite online and in real life.</p> <p>I know that not everyone is who they say they are on the Internet.</p> <p><b>Programming</b> I can give instructions to my friend (using forward, backward and turn) and physically follow their instructions.</p> <p>I can tell you the order I need to do things to make something happen and talk about this as an algorithm.</p> <p>I can program a robot or software to do a particular task.</p> <p>I can look at my friend's program and</p>	<p>password and why they are important.</p> <p>I can protect my personal information when I do different things online.</p> <p>I can use the safety features of websites as well as reporting concerns to an adult.</p> <p>I can recognise websites and games appropriate for my age.</p> <p>I can make good choices about how long I spend online.</p> <p>I ask an adult before downloading files and games from the Internet.</p> <p>I can post positive comments online.</p> <p><b>Programming</b> I can break an open-ended problem up into smaller parts.</p> <p>I can put programming commands into a sequence to achieve a specific outcome.</p> <p>I keep testing my program and can</p>	<p>I can talk about the ways I can protect myself and my friends from harm online.</p> <p>I use the safety features of websites as well as reporting concerns to an adult</p> <p>I know that anything I post online can be seen by others.</p> <p>I choose websites and games that are appropriate for my age.</p> <p>I can help my friends make good choices about the time they spend online.</p> <p>I can talk about why I need to ask a trusted adult before downloading files and games from the Internet.</p> <p>I comment positively and respectfully online.</p> <p><b>Programming</b> I can use logical thinking to solve an open-ended problem by breaking it up into smaller parts.</p>	<p>I can explain why I need to protect myself and my friends and the best ways to do this, including reporting concerns to an adult</p> <p>I know that anything I post online can be seen, used and may affect others.</p> <p>I can talk about the dangers of spending too long online or playing a game.</p> <p>I can explain the importance of communicating kindly and respectfully.</p> <p>I can discuss the importance of choosing an age-appropriate website or game.</p> <p>I can explain why I need to protect my computer or device from harm.</p> <p>I know which resources on the Internet I can download and use.</p> <p><b>Programming</b> I can decompose a problem into smaller parts to design an</p>	<p>I can explain the consequences of sharing too much about myself online.</p> <p>I support my friends to protect themselves and make good choices online, including reporting concerns to an adult.</p> <p>I can explain the consequences of spending too much time online or on a game.</p> <p>I can explain the consequences to myself and others of not communicating kindly and respectfully.</p> <p>I protect my computer or device from harm on the Internet.</p> <p><b>Programming</b> I can deconstruct a problem into smaller steps, recognising similarities to solutions used before.</p> <p>I can explain and program each of the steps in my algorithm. I can evaluate the effectiveness and efficiency of my</p>
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	<p><b><u>Handling Data</u></b> I can tell you about different kinds of information such as pictures, video, text and sound.</p> <p><b><u>Multimedia</u></b> I can move objects on a screen. I can create shapes and text on a screen. I can use technology to show my learning.</p> <p><b><u>Technology in our Lives</u></b> I can tell you about technology that is used at home and in school. I can operate simple equipment. I can use a safe part of the Internet to play and learn.</p>	<p>I can begin to predict what will happen for a short sequence of instructions.</p> <p>I can begin to use software/apps to create movement and patterns on a screen.</p> <p>I can use the word debug when I correct mistakes when I program.</p> <p><b><u>Handling Data</u></b> I can talk about the different ways in which information can be shown. I can use technology to collect information, including photos, video and sound. I can sort different kinds of information and present it to others. I can add information to a pictograph and talk to you about what I have found out.</p> <p><b><u>Multimedia</u></b> I can be creative with different technology tools.</p> <p>I can use technology to create and present my ideas.</p>	<p>tell you what will happen.</p> <p>I can use programming software to make objects move.</p> <p>I can watch a program execute and spot where it goes wrong so that I can debug it.</p> <p><b><u>Handling Data</u></b> I talk about the different ways I use technology to collect information, including a camera, microscope or sound recorder. I can make and save a chart or graph using the data I collect. I can talk about the data that is shown in my chart or graph. I am starting to understand a branching database. I can tell you what kind of information I could use to help me investigate a question.</p> <p><b><u>Multimedia</u></b> I can use technology to organise and present my ideas in different ways.</p>	<p>recognise when I need to debug it.</p> <p>I can use repeat commands.</p> <p>I can describe the algorithm I will need for a simple task.</p> <p>I can detect a problem in an algorithm which could result in unsuccessful programming.</p> <p><b><u>Handling Data</u></b> I can talk about the different ways data can be organised.</p> <p>I can search a ready-made database to answer questions.</p> <p>I can collect data help me answer a question.</p> <p>I can add to a database.</p> <p>I can make a branching database.</p> <p>I can use a data logger to monitor changes and can talk about the information collected.</p> <p><b><u>Multimedia</u></b></p>	<p>I can use an efficient procedure to simplify a program.</p> <p>I can use a sensor to detect a change which can select an action within my program.</p> <p>I know that I need to keep testing my program while I am putting it together. I can use a variety of tools to create a program.</p> <p>I can recognise an error in a program and debug it.</p> <p>I recognise that an algorithm will help me to sequence more complex programs.</p> <p>I recognise that using algorithms will also help solve problems in other learning such as Maths, Science and Design and Technology.</p> <p><b><u>Handling Data</u></b> I can organise data in different ways. I can collect data and identify where it could be inaccurate.</p>	<p>algorithm for a specific outcome and use this to write a program.</p> <p>I can refine a procedure using repeat commands to improve a program.</p> <p>I can use a variable to increase programming possibilities.</p> <p>I can change an input to a program to achieve a different output.</p> <p>I can use 'if' and 'then' commands to select an action.</p> <p>I can talk about how a computer model can provide information about a physical system.</p> <p>I can use logical reasoning to detect and debug mistakes in a program.</p> <p>I use logical thinking, imagination and creativity to extend a program.</p> <p><b><u>Handling Data</u></b> I can use a spreadsheet and</p>	<p>algorithm while I continually test the programming of that algorithm.</p> <p>I can recognise when I need to use a variable to achieve a required output.</p> <p>I can use a variable and operators to stop a program.</p> <p>I can use different inputs (including sensors) to control a device or onscreen action and predict what will happen.</p> <p>I can use logical reasoning to detect and correct errors in algorithms and programs.</p> <p><b><u>Handling Data</u></b> I can plan the process needed to investigate the world around me. I can select the most effective tool to collect data for my investigation.</p> <p>I can check the data I collect for accuracy and plausibility. I can interpret the data I collect.</p>
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