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	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computer Science	Know that when they code they are using an algorithm and turning it into something the computer can interpret. Know that an algorithm written for a computer is called a program. Know that an algorithm is a set of instructions used to solve a problem or achieve an objective. Create simple instructions for someone to follow, building up to creating a simple program that a computer can follow by arranging code blocks. Recognise simple errors in a program such as the way an object is moving and attempt to debug in a purposeful way. Predict what might happen in a simple program. Know how to create an algorithm for a specific purpose using event,	Create a computer program from an algorithm they have made, turning each step into code. Know that outputs from an on-screen program or physical device are directly attributed to the instructions coded. Create programs that include more than one object type. Alter attributes of objects purposefully and predict and observe the effect. Know how to use timers and commands. Program buttons to initiate events in programs. Know that unexpected errors in their programs are due to the code created. Attempt to debug using logical reasoning, interpreting each line of code in sequence. Know the parts of a program that respond to specific events and initiate specific actions.	Plan algorithms with increasing detail including identifying logical steps towards a solution with stages of decomposition of the overall task. Use knowledge of coding structures such as sequences and timers to 'read' a program. Design and code simple sequential programs, using timers to create delay effects. Use a repeating program as an efficient alternative to a sequence. Use logical reasoning and understanding of algorithms to read and create simple flowcharts for planned or existing programs. Debug in a more logical way. Begin to know how the nesting of code affects the program flow.	Independently design, code, test, and debug a simple program. Decompose a task into smaller parts in order to code or interpret programs to achieve desired effects with code. Know how to use selection through the use of if and if/else statements. Code more complex algorithms that use sequencing, selection and repeat. Know the function of a variable and create number variables to keep track of things in a program such as scoring. Read multi-step programs and accurately predict outcomes. Use logical approaches to debugging, recognising how different parts of the code interact.	Use a range of program structures when turning tasks into algorithms. Know what simulating a physical system means and write programs that decompose these systems and model parts through code. Understand how to use levels of abstraction and decomposition. Use sequence, selection and repetition in programs. Recognise when the use of a function will improve the efficiency and readability of their code and can create and use functions in coding. Know how both string and number variables can utilise the system memory to hold information used by the program. Read code at a high level and focus logically on the parts they need to debug when something doesn't execute as designed. Use a mixture of logical reasoning and trial and testing to identify and fix bugs.	Produce accurate algorithms to code. Follow flowcharts to design and debug programs. Use decomposition & abstraction more confidently to simplify and break down tasks. Use understanding of coding structure and knowledge of a greater range of coding components that enable them to make use of variables, user inputs, cloning and hotspots to add complexity and user interactivity to their programs. Translate skills and understanding gained through the use of block coding programs to text based coding in Python. Default to a logical approach when debugging. Begin debugging at the program design and algorithm stage of tasks so the coding becomes more effective with less reliance on a try and test approach at the early stages of coding a program.

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		object and action blocks.	Using a design plan or simple written algorithm, compare this against how a program is executing when in play mode.				Know the function of networks and the difference between a LAN and a WAN with relevant examples
Information Technology		Know how to name, save and retrieve their work. Follow simple instructions to access online resources. Create and combine digital content such as images, sound and text with a purpose.	Know how to access digital content they have created or have been assigned. Use a range of software to create digital content and manipulate it with purpose. Know how to save and edit work.	Identify suitable software for a given task. Create simple databases, spreadsheets to perform calculations and present information. Read, compose and send their own emails	Effectively use a greater range of software tools and select tools for a purpose. Combine digital products such as inserting music they have composed into an animation they create.	Select and use a growing range of software for a purpose. Create and use a range of digital products including databases, spreadsheets and word processing software. Use software to collect data, manipulate, interrogate and produce information based on a specification (query).	Use of a range of digital tools and skills within Purple Mash and to industry standard software e.g. Microsoft. Use tools with a greater level of sophistication. For example, including their own digital artefacts within their blogs, graphs within written pieces and application of data analysis.
Digital Literacy	**Copyright and Ownership**	Know why their creations belong to them, for example "I designed it" or "I filmed it." Know how to save work with a clear name so it is recognised as theirs. Know that work created by other people does not belong to them, even if they save a copy.	Know that content found online often belongs to other people and why it is important to respect that ownership.	Know that copying someone else's work from the internet without permission is unfair and can cause problems.	Know to think carefully about who owns content they find online, such as music, images, or videos, and whether they have the right to use it. Know some examples of things they must not reuse without permission.	Know when it is acceptable to use someone else's work and when it is not. Know how to find content that is allowed to be reused, such as resources labelled for sharing.	Use search tools to find content that can be reused by others. Know how to give credit by referencing and acknowledging the sources they have used from the internet.

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	Health, Wellbeing and Lifestyle	Begin to explain the rules that help them stay safe when using technology, both at home and in other places.	Know that technology is used in many different environments, such as at home or in public places. Know simple ways to keep themselves and others safe when using devices in these settings	Know that spending too much time using technology can sometimes affect health, mood, sleep, and/or relationships. Know positive and negative online activities that can take up lots of time. Know why some online content has age restrictions and why it is important to follow them.	Know how technology can sometimes distract them from other activities. Know situations where it may be helpful to limit screen time and simple strategies to manage this.	Have a deeper understanding of how tech can affect health and wellbeing, both positively (such as through fitness or mindfulness apps) and negatively. Know practical tips for healthy technology use. Know the benefits and risks of online health information, and understand the importance of checking things with trusted adults. Know about inapp purchases, loot boxes, and why they should always ask permission before spending money online.	Know the systems that regulate age-related content (such as PEGI ratings for games or BBFC ratings for films) and why these are important. Know how technology can create pressures, including persuasive designs that keep people online for longer. Know strategies to protect their health, such as taking breaks, using night-shift mode, sitting correctly, and balancing screen time with sleep, diet, and exercise.
	Managing online information	Know simple ways of finding information using digital tools like search engines or voice assistants. Know that the internet contains all kinds of content — things they like, things they don't like, and things that may be real or make-believe. Ask a trusted adult for help if they see something that upsets or worries them.	Use simple keywords in search engines and practise navigating web pages using links, tabs, and buttons. Know that voice assistants (like Alexa or Siri) are not real people. Know the difference between "real" and "made up" information and that not everything they find online is true.	Use key phrases in search engines and know about features like autocomplete. Know how the internet can be used to buy and sell things. Begin to know the difference between beliefs, opinions, and facts.	Know whether online information is accurate and why it's important to make their own decisions. Know about different online spaces such as social media, video sites, or image platforms, Know how advertising and popups encourage people to buy things. Know about fake news, how technology can imitate people (like bots), and why lots of people sharing the same	Know the benefits and limitations of different search technologies, such as voice search. Know how to decide whether content is trustworthy. Know about adverts, targeted content, and sponsorship, and how stereotypes can be spread online. Know how hoaxes and fake news can influence people's feelings and behaviour, and why it's important to think carefully before sharing.	Know in more depth how search engines work and how results are ranked. Evaluate information for reliability and know how opinions may sometimes be presented as facts. Know the different advertising such as persuasion, manipulation, and targeted advertising, and how persuasive design can influence people's choices. Know the difference between misinformation and disinformation and why

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					opinion doesn't necessarily make it true.		repeated information may still be untrue.
	Online Bullying	Know how to behave online in positive ways that do not upset others.	Know what bullying is, how it can happen online, and how it can affect people's feelings.	Know why it is important to behave appropriately towards others online. Know different ways bullying behaviour may appear online and identify how someone can seek support if it happens.	Know when others are upset, hurt, or angry online. Know that bullying can happen through different types of media such as images, videos, texts, or chats. Know what they post can affect others' feelings and how it might impact their own reputation.	Know how online bullying can be different from bullying in real life. Know how joking or "banter" can sometimes be experienced as hurtful or bullying. Know strategies for getting help, including how to report bullying, block abusive users, and access helplines such as Childline or The Mix.	Know practical strategies to deal with online bullying, such as how to capture evidence (screenshots, URLs, profiles) and share it with trusted adults.
	Online Relationships	Know that they should ask permission before doing things online and understand why this is important. Know why it matters to be kind, considerate, and respectful to others online - even if people don't always find the same things funny or upsetting.	Know that people may use technology to communicate with strangers, and why this can be risky. Know they must ask permission before sharing information, how to say "no" or "I'm not sure," and why it's important to respect other people's choices. Know to speak with a trusted adult before agreeing to anything online and to seek help if something happens without their consent.	Know how people with similar interests can meet online. Know the difference between "knowing" someone online and knowing them in real life. Know that trusting someone online is not the same as liking them, and that it is okay to change their mind if they feel unsure.	Know strategies for enjoying online social environments safely, such as gaming or livestreaming. Recognise respectful and unhealthy behaviour. Understand how content that seems unimportant to one person may hold real meaning or feelings for others.	Know more forms of online communication, such as emojis, memes, and GIFs. Know that while online communities can be positive, there are also people who may want to cause harm, and this is never the child's fault. Know how to collaborate positively online, how to support others, and when it is important to seek help from a trusted adult.	Know the different impacts of sharing online, both positive and negative. Know the importance of respecting boundaries when sharing about others and understand that even private sharing (such as screenshots) can have unintended consequences. Know the risks of taking or sharing inappropriate or embarrassing images and learn how to get help if they or someone else feels worried.

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	Online Reputation	Begin to know that information shared online can stay there and be copied by others. Know that some information should not be shared without checking with a trusted adult first.	Know that once information is online, it can last a long time and be seen by others.	Know how to search for information about people online. Know what is safe or not safe to share about themselves online.	Know that information may have been created, copied, or shared by others, and not always by the person themselves.	Know how to search for information about individuals online and summarise what they find. Know that online information can be used by others to form judgements about a person - and why those judgements may not always be fair or correct.	Know how to build and protect a positive online reputation. Know strategies for safeguarding their digital identity, including the use of privacy settings and understanding different levels of anonymity.
	Privacy and security	Know that a password helps protect information, accounts, and devices. Know more detailed personal information, such as where they live or go to school, and know that they should always ask a trusted adult before sharing any of this online.	Know ways to keep personal information private. Know what it means for something to be "private". Know how to create a good password. Know that many devices in the home are connected to the internet, such as toys, TVs, or even fridges.	Begin to know how to create and keep passwords secure. Know why information should only be shared with people they know and trust, and that if they feel unsure or pressured, they should always tell an adult. Begin to know that devices can collect and share personal information.	Know different strategies for keeping personal information private in a range of situations. Know that internet use is never fully private and may be monitored. Know what the "digital age of consent" means, and when to ask an adult for help.	Know what makes a strong password and how to create one. Know that many free apps and services can collect and share private information, such as contacts, photos, or location. Know what app permissions are and what they mean.	Know strategies for managing and protecting passwords, including what to do if one is lost or stolen. Know why keeping software up to date is important and how privacy settings can increase protection online. Know about online scams and phishing, and strategies to recognise and avoid them. Know that all online services have terms and conditions that govern their use.
	Self-image and identity	Begin to know that, just like in real life, there may be people online who could upset or embarrass them. Know when and how to tell a trusted adult if something worries them and understand that adults can help keep them safe.	Know that people may look or behave differently online than they do in person. Discuss situations online that might feel worrying or upsetting and learn clear steps they can take to ask for help.	Know what identity is. Know people can show themselves in different ways online, such as through gaming characters, avatars, or social media profiles, and why someone might do this.	Know how their online identity might be different from their offline identity. Know about positive online interactions and how being kind and respectful shapes how others see them. Know that people online can pretend to be	Know that online identities can be copied, changed, or altered. Understand the choices they make when creating their own online identity and how to do this responsibly, depending on the situation.	Look more critically at online content and how some representations - for example about gender, race, religion, or disability can be harmful or unfair. Know why it is important to challenge stereotypes and reject inappropriate content.

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					someone else - even a friend - and possible reasons why.		