

Christopher Reeves Computing overview

	EYFS	Year 1 and Year 2		Year 3 and Year 4		Year 5 and Year 6	
Computing Systems and networks	<ul style="list-style-type: none"> Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. Explain the reasons for rules, know right from wrong and try to behave accordingly. <p>Personal, Social and Emotional Development • Show resilience and perseverance in the face of a challenge.</p> <p>Physical Development • Develop their small motor skills so that they can use a range of tools competently, safely and confidently.</p> <ul style="list-style-type: none"> Know and talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time'. 	<p><u>Technology around us</u> Recognise how technology helps us Locate examples of technology in the classroom Name parts of a computer Switch on and log on to the computer Click using a mouse Save work to a file Basic keyboard skills - delete, capitals, arrow keys</p>	<p><u>Information around us</u> Describe some uses of computers Identify examples of computers Identify examples of IT and sort examples of school IT. Recognise common types of technology. Using technology in different ways, including making choices for different activities.</p>	<p><u>Networks</u> - Similarities and differences between digital devices and non-digital tools. Classifying inputs and outputs, How computer networks share information - network switches, messages through connections. Recognise that a computer network is made up of a number of devices. Benefits of computer networks.</p>	<p><u>The internet</u> - how information is shared across the internet. How to access websites and where they are stored when using the WWW. Describe how content can be added and accessed on WWW. Recognise how the content of the WWW is created by people - the rules to protect content, not everything is true on the WWW.</p>	<p><u>Sharing information</u> Explain that computers can be connected to form systems - inputs and outputs, processes. Recognise that computer systems communicate with other devices. Identify tasks managed by computer systems and the human elements of a computer system. Investigate how data is transferred in packets and that networked digital devices have unique addresses. Compare online and offline working and how the internet enables effective collaboration.</p>	<p><u>Search engines</u> - comparing results of different ones. Recognise role of web crawlers Relate search term to search engine's index. How search engines make money Communicating over the internet</p>
		<p>Year Term Teach Computing 1.1 Technology around us. Paintz on Laptops</p>	<p>Year Term TC 2.1 Information and technology around us. Google slides on chrome books or Powerpoint on laptops</p>	<p>Year B Autumn term TC 3.1 Connecting computers</p>	<p>Year A Autumn Term TC 4.1 The internet</p>	<p>Year A Term TC6.1 Internet communication</p>	<p>Year B Term TC5.1 Sharing information Google slides on chrome books</p>
Internet safety/ curriculum links		<p>Copyright and ownership Health, well-being and lifestyle Rules for safety when using technology</p>	<p>Health, well-being and lifestyle Rules for safety when using technology</p>	<p>Link with History Alan Turing Bletchley Park</p>	<p>Internet safety</p>	<p>Copyright and ownership</p>	<p>Internet safety - manage online information Online reputation</p>
Creating media	<p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Be aware that text and images on a computer can be printed out.</p> <ul style="list-style-type: none"> Be aware that text comes in different colours, sizes and styles. Be aware that they can interact with multimedia software to make something happen on screen. Begin to understand that ICT can be used to communicate through text, images and sound. 	<p><u>Digital painting</u> Draw lines on a screen and make marks with square and line tools. Choose shapes, make dots and change colour of brushes. Consider differences between painting on a computer and on paper</p> <p><u>Digital writing</u> Keyboard skills - backspace, letter, number, space keys. Type capital letters and change the font - bold, italic and underline. consider differences between writing on a computer and on paper.</p>	<p><u>Digital photography.</u> Recognise what devices can be used to take photos Recognise portrait or landscape formats Improve photos, experiment with light sources, explore effect that light has. Combine this unit with science - plants. Making an identification chart.</p> <p><u>Making music</u> Explain how music makes me feel Create rhythm patterns Refine musical patterns on a computer Save, reopen and improve work.</p>	<p><u>Animation</u> Create flip book style animation and compare to stop-frame animation. Create storyboards, sequence frames, use onion skinning to make small changes Evaluate peers animations and improve my own animation based on feedback,</p> <p><u>Desktop publishing</u> Explain the differences between text and images. Change font style, size and colours and edit text Create a template and define page orientation. Use place holders, insert images</p>	<p><u>Photo editing</u> Explain effect editing can have on an image and real life uses. Take photos - change by selecting parts of an image Combine parts of images</p>	<p><u>Video Editing</u> Planning, capturing and editing video to produce a short film.</p> <p><u>Vector drawing</u> Creating images in a drawing program by using layers and groups of objects.</p>	<p><u>Webpage creation</u> Designing and creating webpages, giving consideration to copyright, aesthetics and navigation.</p> <p><u>3D modelling</u> Planning, developing and evaluating 3D computer models of physical objects.</p>

	<ul style="list-style-type: none"> ● Be aware that a keyboard and mouse are tools for communicating with a computer ● Know how to use simple tools on an interactive whiteboard. <p>. Expressive Arts and Design · Explore, use and refine a variety of artistic effects to express their ideas and feelings.</p> <p>ELG: Expressive Arts and Design - Creating with Materials</p>			Compare desktop publishing to work created by hand.			
	<p>Paint programme on Ipad writing labels - name, parts of a vehicle, body, animals Taking pictures with Ipad</p>	<p>Year Term TC1.2 Digital painting Microsoft paint on laptops</p> <p>Year B Term 2 TC 1.2. Digital writing Google docs on chrome books or word on laptops?</p>	<p>Year B Summer Term TC 2.2 Digital photography Digital cameras and laptops.</p> <p>Year A Summer Term TC 2.5 Making music chrome music lab</p>	<p>Year B Spring Term TC 3.2 Stop frame animation Imotion Roman soldiers</p>	<p>Year A Spring Term Photo editing - link with Science/Art shadow art pictures</p> <p>Year B Autumn Term TC3.5 Desktop publishing to make a factsheet about Electricity using Adobe Spark</p>	<p>Year A Term T.C. 6.2 Webpage creation</p>	<p>Year B Term T.C. 5.5 Vector drawing</p>
Internet safety/ curriculum links		Art link - cubist artists	<p>Digital photography - self-image and identity</p> <p>Link with music</p>	<p>Copyright and ownership Managing online information</p> <p>Link with Science</p>	<p>Copyright and ownership</p> <p>Self-identity</p>	Self identity	Copyright and ownership
Programming	<p>I can use a computer mouse and laptop touchpad to move the arrow on the screen.</p> <p>I can switch a computer on and off safely with help.</p> <p>I can switch an iPad on and off safely.</p> <p>I can navigate the iPad to find a specific app.</p> <p>I can give simple instructions to move a sprite . (beebot app)</p> <p>With support I can begin to plan a journey to programme a toy.</p>	<p><u>Programming</u> Explain what a given command will do. Act out a given word Plan a simple program Find more than one solution to a problem Choose a command for a given purpose Show a series of commands can be joined together.</p>	<p><u>Programming</u> Describe a series of instructions as a sequence Explain what happens when we change the order of instructions Use logical reasoning to predict the outcome of a program (series of commands) Explain that programming projects can have code and artwork Create and debug a program that I have written. Explain that a sequence of commands has a start and that a sequence of commands has an outcome.</p>	<p><u>Programming</u> Explore a new programming environment Identify that commands have an outcome and recognise that a sequence of commands can have an order. Change the appearance of my project Create a project from a task description Design and create a maze-based challenge Explain how a sprite moves in an existing project Create a program to move a sprite in four directions Adapt a program to a new context Identify and fix bugs in a program</p>	<p><u>Programming</u> Create a program that uses count-controlled loops to produce a given outcome Create a program in a text-based language Explain what 'repeat' means Decompose a task into small steps Design a project that includes repetition Modify an infinite loop in a given program</p>	<p><u>Programming</u> Create a program that controls a physical computing project Control a simple circuit connected to a computer Write a program that includes count-controlled loops Explain that a loop can be used to repeatedly check whether a condition has been met</p> <p>Design a program which uses selection Explain how selection directs the flow of a program</p>	<p><u>Programming</u> Design a project that builds on a given example Define a 'variable' as something that is changeable and choose how to improve a game by using variables.</p> <p>Create a program to run on a controllable device Design a project that uses inputs and outputs on a controllable device</p>
		<p>Year B Autumn Term T.C 1.3 Moving a robot Writing short algorithms using a beebot.</p> <p>Year B Summer Term T.C 1.6 Programming animations Designing and programming the movement of a character on the screen to tell stories.</p>	<p>Year A Spring Term T.C 2.3 Robot algorithms Creating and debugging programs and using logical reasoning to make predictions.</p> <p>Year A Summer Term T.C. 2.6 Programming quizzes Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.</p>	<p>Year B Spring Term T.C.3.3 Sequencing sounds Creating music using Scratch.</p> <p>Year B Spring Term T.C.3.6 Events and actions in programs Use Scratch to write algorithms that use a range of events to trigger sequences of actions.</p>	<p>Year A Spring Term T.C.4.3 Repetition in shapes Using logo to draw shapes to explore count-controlled loops.</p> <p>Year A Summer Term T.C. 4.6 Repetition in games Creating a game using a Scratch.</p>	<p>Year A Term T.C.5.6 Selection in quizzes Use Scratch to make a quiz.</p> <p>Year A Term T.C.6.6 Sensing Using the micro:bit.</p>	<p>Year B Term T.C. 6.3 Variables in games Use Scratch to explore variables.</p> <p>Year B Summer Term T.C. 5.3 Selection in physical computing Using Crumble controllers to connect and program components including LEDs and motors,</p>

Internet safety/ curriculum links			Copyright and ownership			Copyright and ownership	- Privacy and security
Data and information	<p>Be aware that information can be sorted both practically and by using a computer program.</p> <p>Have an awareness of how a computer allows objects to be moved around easily on screen changes to be made easily changes to be saved</p> <p>Collect information, e.g., by taking photographs or collecting objects.</p> <ul style="list-style-type: none"> ● Begin to sort, classify or group various objects progressing from practical activities to the use of ICT, e.g., practically sorting fruit into colours, types or shapes, and then on-screen. ● Use ICT to sort and sequence object on a screen or interactive whiteboard. 	<p><u>Grouping data</u></p> <p>Exploring object labels and using them to sort and group objects by properties.</p>	<p><u>Pictograms</u></p> <p>Collecting data in tally charts and using attributes to organise and present data on a computer.</p>	<p><u>Branching data bases</u></p> <p>Building and using branching databases to group objects using yes/no questions</p>	<p><u>Data logging</u></p> <p>Recognising how and why data is collected over time. Use data loggers to carry out an investigation.</p>	<p><u>Flat file data bases</u></p> <p>Using a database to order data and create charts to answer questions.</p>	<p><u>Introduction to spreadsheets</u></p> <p>Answering questions by using spreadsheets to organise and calculate data.</p>
		Year Term T.C. 1.4 Grouping data	Year Term T.C. 2.4 Pictograms	Year B Summer Term T.C. 3.4 Branching data bases	Year A Summer Term T.C. 4.4 Data logging	Year A Term 6.4 Introduction to spreadsheets	Year B Term 5.4 Flat file databases
Internet safety/ curriculum links				Links with Science classification of living things	Science light link		
Internet Safety - Education for a connected world							
Self-image and identity							
Education for a connected world Online safety	<p>I can recognise, online or offline, that anyone can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who makes them feel sad, uncomfortable, embarrassed or upset</p>	<p>Year 1</p> <ul style="list-style-type: none"> • If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust and how they can help. • I can recognise that there may be people online who could make someone feel sad, embarrassed or upset. 	<p>Year 2</p> <ul style="list-style-type: none"> • I can explain how other people may look and act differently online and offline. • I can give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can give examples of how they might get help. 	<p>Year 3</p> <ul style="list-style-type: none"> • I can explain what is meant by the term 'identity'. • I can explain how people can represent themselves in different ways online • I can explain ways in which someone might change their identity depending on what they are doing online (e.g. 	<p>Year 4</p> <ul style="list-style-type: none"> • I can explain how my online identity can be different to my offline identity. • I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them. 	<p>Year 5</p> <ul style="list-style-type: none"> • I can explain how identity online can be copied, modified or altered. • I can demonstrate how to make responsible choices about having an online identity, depending on context. 	<p>Year 6</p> <ul style="list-style-type: none"> • I can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online.

			gaming; using an avatar; social media) and why	<ul style="list-style-type: none"> I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this. 		<ul style="list-style-type: none"> I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help, both on and offline. I can explain the importance of asking until I get the help needed.
Online relationships						
<ul style="list-style-type: none"> I can recognise some ways in which the internet can be used to communicate. I can give examples of how I (might) use technology to communicate with people I know. 	<p>Year 1</p> <ul style="list-style-type: none"> I can give examples of when I should ask permission to do something online and explain why this is important. I can use the internet with adult support to communicate with people I know (e.g. video call apps or services). I can explain why it is important to be considerate and kind to people online and to respect their choices. I can explain why things one person finds funny or sad online may not always be seen in the same way by others. 	<p>Year 2</p> <ul style="list-style-type: none"> I can give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might be risky. (e.g. email, online gaming, a pen-pal in another school / country). I can explain who I should ask before sharing things about myself or others online. I can describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure. I can explain why I have a right to say 'no' or 'I will have to ask someone'. I can explain who can help me if I feel under pressure to agree to something I am unsure about or don't want to do. I can identify who can help me if something happens online without my consent. I can explain how it may make others feel if I do not ask their permission or ignore their answers before sharing something about them online. 	<p>Year 3</p> <ul style="list-style-type: none"> I can describe ways people who have similar likes and interests can get together online. I can explain what it means to 'know someone' online and why this might be different from knowing someone offline. I can explain what is meant by 'trusting someone online', why this is different from 'liking someone online', and why it is important to be careful about who to trust online including what information and content they are trusted with. I can explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried. I can explain how someone's feelings can be hurt by what is said or written online. I can explain the importance of giving and gaining permission before sharing things online; how the principles of sharing online is the same as sharing offline e.g. sharing images and videos. 	<p>Year 4</p> <ul style="list-style-type: none"> I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms). I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours. I can explain how content shared online may feel unimportant to one person but may be important to other people's thoughts feelings and beliefs 	<p>Year 5</p> <ul style="list-style-type: none"> I can give examples of technology-specific forms of communication (e.g. emojis, memes and GIFs). I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my / our fault. I can describe some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make positive contributions. (e.g. gaming communities or social media groups). I can explain how someone can get help if they are having problems and identify when to tell a trusted adult. I can demonstrate how to support others (including those who are having 	<p>Year 6</p> <ul style="list-style-type: none"> I can explain how sharing something online may have an impact either positively or negatively. I can describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not. I can describe how things shared privately online can have unintended consequences for others. <p>e.g. screen-grabs.</p> <ul style="list-style-type: none"> I can explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this.

		<ul style="list-style-type: none"> I can explain why I should always ask a trusted adult before clicking 'yes', 'agree' or 'accept' online. 				
Online reputation						
<ul style="list-style-type: none"> I can identify ways that I can put information on the internet 	Year 1 <ul style="list-style-type: none"> I can recognise that information can stay online and could be copied. I can describe what information I should not put online without asking a trusted adult first. 	Year 2 <ul style="list-style-type: none"> I can explain how information put online about someone can last for a long time. I can describe how anyone's online information could be seen by others. I know who to talk to if something has been put 	Year 3 <ul style="list-style-type: none"> I can explain how to search for information about others online. I can give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal. I can explain who someone can ask if they are unsure about putting something online 	Year 4 <ul style="list-style-type: none"> I can describe how to find out information about others by searching online. I can explain ways that some of the information about anyone online could have been created, copied or shared by others. 	Year 5 <ul style="list-style-type: none"> I can search for information about an individual online and summarise the information found. I can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect. 	Year 6 <ul style="list-style-type: none"> I can explain the ways in which anyone can develop a positive online reputation. I can explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity.
Online bullying						
I can describe ways that some people can be unkind online. I can offer examples of how this can make others feel	Year 1 <ul style="list-style-type: none"> I can describe how to behave online in ways that do not upset others and can give examples. 	Year 2 <ul style="list-style-type: none"> I can explain what bullying is, how people may bully others and how bullying can make someone feel. I can explain why anyone who experiences bullying is not to blame. I can talk about how anyone experiencing bullying can get help. 	Year 3 <ul style="list-style-type: none"> I can describe appropriate ways to behave towards other people online and why this is important. I can give examples of how bullying behaviour could appear online and how someone can get support. 	Year 4 <ul style="list-style-type: none"> I can recognise when someone is upset, hurt or angry online. I can explain why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation). I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat). 	Year 5 <ul style="list-style-type: none"> I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences. I can describe how what one person perceives as playful joking and teasing (including 'banter') might be experienced by others as bullying. I can explain how anyone can get help if they are being bullied online and identify when to tell a trusted adult. 	Year 6 <ul style="list-style-type: none"> I can describe how to capture bullying content as evidence (e.g. screen-grab, URL, profile) to share with others who can help me. I can explain how someone would report online bullying in different contexts.
			Link to Anti bullying week			
Managing online information						
<ul style="list-style-type: none"> I can talk about how to use the internet as a way of finding information online. I can identify devices I could use to access information on the internet. 	Year 1 <ul style="list-style-type: none"> I can give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching). I know / understand that we can encounter a range of things online including things we like and don't like as well as things which are real or make believe / a joke. 	Year 2 <ul style="list-style-type: none"> I can use simple keywords in search engines. I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections). I can explain what voice activated searching is and how it might be 	Year 3 <ul style="list-style-type: none"> I can demonstrate how to use key phrases in search engines to gather accurate information online. I can explain what autocomplete is and how to choose the best suggestion. I can explain how the internet can be used to sell and buy things. 	Year 4 <ul style="list-style-type: none"> I can analyse information to make a judgement about probable accuracy and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others. I can describe how to search for information 	Year 5 <ul style="list-style-type: none"> I can explain the benefits and limitations of using different types of search technologies e.g. voice-activation search engine. I can explain how some technology can limit the information I aim presented with e.g. voice-activated 	Year 6 <ul style="list-style-type: none"> I can explain how search engines work and how results are selected and ranked. I can explain how to use search technologies effectively. I can describe how some online information can be opinion and can offer examples.

- I know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable worried or frightened.

used, and know it is not a real person (e.g. Alexa, Google Now, Siri).

- I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'.
- I can explain why some information I find online may not be real or true

- I can explain the difference between a 'belief', an 'opinion' and a 'fact' and can give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories etc.
- I can explain that not all opinions shared may be accepted as true or fair by others (e.g. monsters under the bed).
- I can describe and demonstrate how we can get help from a trusted adult if we see content that makes us feel sad, uncomfortable worried or frightened.

within a wide group of technologies and make a judgement about the probable accuracy (e.g. social media, image sites, video sites).

- I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers; **in-app purchases, pop-ups**) and can recognise some of these when they appear online.
- I can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true.
- I can explain that technology can be designed to act like or impersonate living things (e.g. **bots**) and describe what the benefits and the risks might be.
- I can explain what is meant by **fake news** e.g. why some people will create stories or alter photographs and put them online to pretend something is true when it isn't.

searching giving one result.

- I can explain what is meant by 'being **sceptical**'; I can give examples of when and why it is important to be 'sceptical'.
- I can evaluate digital content and can explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results.
- I can explain key concepts including: information, reviews, fact, opinion, belief, validity, reliability and evidence.
- I can identify ways the internet can draw us to information for different agendas, e.g. website notifications, **pop-ups**,
- I can describe ways of identifying when online content has been commercially sponsored or boosted, (e.g. by commercial companies or by **vloggers, content creators, influencers**).
- I can explain what is meant by the term 'stereotype', how 'stereotypes' are amplified and reinforced online, and why accepting 'stereotypes' may influence how people think about others.
- I can describe how **fake news** may affect someone's emotions and behaviour, and explain why this may be harmful.
- I can explain what is meant by a '**hoax**'. I can explain why someone would need to think

- I can explain how and why some people may present 'opinions' as 'facts'; why the popularity of an opinion or the personalities of those promoting it does not necessarily make it true, fair or perhaps even legal.
- I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how someone might encounter these online (e.g. advertising and '**ad targeting**' and targeting for **fake news**).
- I understand the concept of **persuasive design** and how it can be used to influence peoples' choices.
- I can demonstrate how to analyse and evaluate the validity of 'facts' and information and I can explain why using these strategies are important.
- I can explain how companies and news providers target people with online news stories they are more likely to engage with and how to recognise this.
- I can describe the difference between on-line **misinformation** and **dis-information**.
- I can explain why information that is on a large number of sites may still be inaccurate or untrue. I can assess how this might happen (e.g. the sharing of misinformation or disinformation).
- I can identify, flag and report inappropriate content.

carefully before they share.

Health, well-being and lifestyle

<p>I can identify rules that help keep us safe and healthy in and beyond the home when using technology. I can give some simple examples of these rules.</p>	<p>Year 1</p> <ul style="list-style-type: none"> I can explain rules to keep myself safe when using technology both in and beyond the home. 	<p>Year 2</p> <ul style="list-style-type: none"> I can explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment. I can say how those rules / guides can help anyone accessing online technologies. 	<p>Year 3</p> <ul style="list-style-type: none"> I can explain why spending too much time using technology can sometimes have a negative impact on anyone, e.g. mood, sleep, body, relationships; I can give some examples of both positive and negative activities where it is easy to spend a lot of time engaged (e.g. doing homework, games, films, videos). I can explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g. age restricted gaming or web sites). 	<p>Year 4</p> <ul style="list-style-type: none"> I can explain how using technology can be a distraction from other things, in both a positive and negative way. I can identify times or situations when someone may need to limit the amount of time they use technology e.g. I can suggest strategies to help with limiting this time. 	<p>Year 5</p> <ul style="list-style-type: none"> I can describe ways technology can affect health and well-being both positively (e.g. mindfulness apps) and negatively. I can describe some strategies, tips or advice to promote health and well-being with regards to technology. I recognise the benefits and risks of accessing information about health and well-being online and how we should balance this with talking to trusted adults and professionals. I can explain how and why some apps and games may request or take payment for additional content (e.g. in-app purchases, lootboxes) and explain the importance of seeking permission from a trusted adult before purchasing. 	<p>Year 6</p> <ul style="list-style-type: none"> I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose. I recognise and can discuss the pressures that technology can place on someone and how / when they could manage this. I can recognise features of persuasive design and how they are used to keep users engaged (current and future use). I can assess and action different strategies to limit the impact of technology on health (e.g. night-shift mode, regular breaks, correct posture, sleep, diet and exercise).
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Privacy and security

<ul style="list-style-type: none"> I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location). I can describe who would be trustworthy to share this information with; I can explain why they are trusted. 	<p>Year 1</p> <ul style="list-style-type: none"> I can explain that passwords are used to protect information, accounts and devices. I can recognise more detailed examples of information that is personal to someone (e.g. where someone lives and goes to school, family names). I can explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others. 	<p>Year 2</p> <ul style="list-style-type: none"> I can explain how passwords can be used to protect information, accounts and devices. I can explain and give examples of what is meant by 'private' and 'keeping things private'. I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords). I can explain how some people may have devices in their homes connected to the internet and give 	<p>Year 3</p> <ul style="list-style-type: none"> I can describe simple strategies for creating and keeping passwords private. I can give reasons why someone should only share information with people they choose to and can trust. I can explain that if they are not sure or feel pressured then they should tell a trusted adult. I can describe how connected devices can collect and share anyone's information with others. 	<p>Year 4</p> <ul style="list-style-type: none"> I can describe strategies for keeping personal information private, depending on context. I can explain that internet use is never fully private and is monitored, e.g. adult supervision. I can describe how some online services may seek consent to store information about me; I know how to respond appropriately and who I can ask if I am not sure. I know what the digital age of consent is and the impact this has on 	<p>Year 5</p> <ul style="list-style-type: none"> I can explain what a strong password is and demonstrate how to create one. I can explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. I can explain what app permissions are and can give some examples. 	<p>Year 6</p> <ul style="list-style-type: none"> I can describe effective ways people can manage passwords (e.g. storing them securely or saving them in the browser). I can explain what to do if a password is shared, lost or stolen. I can describe how and why people should keep their software and apps up to date, e.g. auto updates. I can describe simple ways to increase privacy on apps and services
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			examples (e.g. lights, fridges, toys, televisions).		online services asking for consent.		that provide privacy settings. <ul style="list-style-type: none"> I can describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing). I know that online services have terms and conditions that govern their use.
Copyright and ownership							
<ul style="list-style-type: none"> I know that work I create belongs to me. I can name my work so that others know it belongs to me. 	Year 1 <ul style="list-style-type: none"> I can explain why work I create using technology belongs to me. I can say why it belongs to me (e.g. 'I designed it' or 'I filmed it'). I can save my work under a suitable title / name so that others know it belongs to me (e.g. filename, name on content). I understand that work created by others does not belong to me even if I save a copy 	Year 2 <ul style="list-style-type: none"> I can recognise that content on the internet may belong to other people I can describe why other people's work belongs to them. 	Year 3 <ul style="list-style-type: none"> I can explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause. 	Year 4 <ul style="list-style-type: none"> When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. I can give some simple examples of content which I must not use without permission from the owner, e.g. videos, music, images. 	Year 5 <ul style="list-style-type: none"> I can assess and justify when it is acceptable to use the work of others. I can give examples of content that is permitted to be reused and know how this content can be found online. 	Year 6 <ul style="list-style-type: none"> I can demonstrate the use of search tools to find and access online content which can be reused by others. I can demonstrate how to make references to and acknowledge sources I have used from the internet. 	

Sticky Knowledge

Milestone 1	Milestone 2	Milestone 3
<ul style="list-style-type: none"> create a series of instructions and plan a journey for a programmable toy understand that algorithms are used on digital devices create, store and retrieve digital content write a simple program and test it predict what the outcome of a simple program will be (logical reasoning). use a website and a camera talk about some of the IT uses in their own home understand that programs require precise instructions organise, retrieve and manipulate digital content know how technology is used in school and outside of school use technology safely keep personal information private know where to go for help if concerned. 	<ul style="list-style-type: none"> write programs that accomplish specific goals give an 'on-screen' sprite specific instructions that takes them from A to B design a sequence of instructions, including directional instructions experiment with variables to control models discern when it is best to use technology and where it adds little or no value make an accurate prediction and explain why they believe something will happen (linked to programming) navigate the web to complete simple searches know how to search for specific information and know which information is useful and which is not use a range of software for similar purposes collect and present information 	<ul style="list-style-type: none"> use technology to control an external device write a program that combines more than one attribute develop a program that has specific variables identified analyse and evaluate information reaching a conclusion that helps with future developments design algorithms that use repetition and 2-way selection understand how search results are selected and ranked be aware that some search engines may provide misleading information combine sequences of instructions and procedures to turn devices on and off present the data collected in a way that makes it easy for others to understand understand that they have to make choices when using technology and that not everything is true and/or safe

- select and use software to accomplish given goals
- understand what computer networks do and how they provide multiple services
- Know different ways they can get help if concerned
- recognise acceptable and unacceptable behaviour using technology

- Be increasingly aware of the potential dangers in using aspects of IT and know when to alert someone if feeling uncomfortable