**Moredon Primary and Nursery School**

**Subject Overviews, Long term planning**

**Computing**:

*Intent: By the end of their time at Moredon Primary and Nursery School we want to ensure that our pupils develop the skills needed to be able to access technology as a tool for learning and allow them to adapt to the ever changing technology industry in the future.*

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| **Term** | **OS Obj.** | **Reception** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| Term 1 | Self-image and identity Privacy and Security | **More information to follow** | **Computing systems and networks –** Technology around us | **Computing systems and networks** – IT around us | **Computing systems and networks –** Connecting computers | **Computing systems and networks –** The Internet | **Computing systems and networks –** Systems and searching | **Computing systems and networks –** Communication and collaboration |
| Term 2 | Online Bullying | **Creating media** – Digital painting | **Creating media** – – Digital photography | **Creating media** – Stop-frame animation | **Creating media** – Audio production | **Creating media** – Video production | **Creating media** – Web page creation |
| Term 3  *Days* | *Online Reputation* | **Programming A** – Moving a robot | **Programming A** – Robot algorithms | **Programming A** – Sequencing sounds | **Programming A** – Repetition in shapes | **Programming A** – Selection in physical computing | **Programming A** – Variables in games |
| Term 4 | *Health. Well-being and lifestyle* | **Data and information –** Grouping data | **Data and information –**  Pictograms | **Data and information –** Branching databases | **Data and information –** Data logging | **Data and information** – Flat-file databases | **Data and information –** Introduction to Spreadsheets |
| Term 5 | *Online relationships* | **Creating media** – Digital writing | **Creating media** – Digital music | **Creating media** – Desktop publishing | **Creating media** – Photo editing | **Creating media** – Introduction to vector graphics | **Creating media** – 3D Modelling |
| Term 6 | *Managing Online Information* | **Programming B -** Programming animations | **Programming B -**  Programming quizzes | **Programming B -** Events and actions in programs | **Programming B -** Repetition in games | **Programming B -** Selection in quizzes | **Programming B -** Sensing movement |

**Online safety**

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| **Term** | **OS Obj.** | **Reception** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| Term 1 | Self-image and identity Privacy and Security | 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. | I can recognise that there may be people online who could make someone feel sad, embarrassed or upset.  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 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. | 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. gaming; using an avatar; social media) and why. | 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.  I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this. | 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. | 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.  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. |
| Term 2 | Online Bullying | I can describe ways that some people can be unkind online.  I can offer examples of how this can make others feel. | I can describe how to behave online in ways that do not upset others and can give examples. | 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. | 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. | I can recognise when someone is upset, hurt or angry online.  I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat).  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 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.  I can identify a range of ways to report concerns and access support both in school and at home about online bullying.  I can explain how to block abusive users.  I can describe the helpline services which can help people experiencing bullying, and how to access them (e.g. Childline or The Mix). | 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. |
| Term 3 | *Online Reputation* | I can identify ways that I can put information on the internet. | 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. | 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 online without consent or if it is incorrect. | 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. | 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. | 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. | 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**. |
| Term 4 | *Health. Well-being and lifestyle* | 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. | I can explain rules to keep myself safe when using technology both in and beyond the home. | 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. | 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). | 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. | 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. | 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). |
| Term 5 | *Online relationships* | 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. | 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. | 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.  I can explain why I should always ask a trusted adult before clicking ‘yes’, ‘agree’ or ‘accept’ online. | 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. | 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. | 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 difficulties) online. | 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. e.g. screen-grabs.  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. |
| Term 6 | *Managing Online Information* | 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. | 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.  I know how to get help from a **trusted adult** if we see content that makes us feel sad, uncomfortable worried or frightened. | 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 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 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.  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. | 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 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. | 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 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, targeted ads. | 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 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 influences peoples’ choices. |