Subject: Computing

Progression and coverage doc

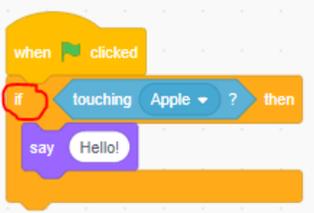| Computing Skills	Computer science and technology skills	Projects / outcomes?	Technology, Apps, websites and tools	Notes
EYFS	- Follow and give simple instructions. - Identify technology we use and how to use it safely. - Program single instructions using technology. - Record sounds and voices. - Record simple films/videos. - Take photos. - Create a simple piece of art using technology. - Use simple apps on a touch screen device. - Name parts of a computer - Type name - Understand how we can use tech and the internet to find out information and communicate with people in other places.	1. Learning to follow instructions and routines at school. 2. Direct each other on a 'bear hunt', then using a beebot and later coding online (J2code). 3. Tinker with the different parts of a broken computer and other technology. 4. a. Take photographs of Spring bonnets they have made for a competition. 4. b. Filming their own puppet shows. 4. c. Retell a known traditional story on chatterpix. 5. Creating own 'Bog baby' art, including typing name. 6. Emailing other people in the school with important information about the environment.	Chatter pix Seesaw Grid marked on the floor Beebot J2code J2data Green screen app Interactive whiteboard Ipad camera Kiddle - children's search engine email Art app?	Any simple coding games that the chn could use in discovery?? Scratch junior, Tynker
Year 1	Start blogging as a class 1. **Computer Science** - To be able to follow, give, and read simple sets of instructions. Understanding that a computer needs precise instructions and know that an 'algorithm' is a list of instructions - To solve a problem by breaking it down into small steps. - To plan and write a simple program and debug problems 2. **Internet, networks and the web** - To understand what a computer is and the basics of the internet. 3. **Multimedia and communication** - To record audio and listen back to recordings, take photos and record a short film. - To use different software and apps to present work such as *PicCollage* - Data handling and analysis including pictogram 4. **IT in the world** - To understand some of the ways that technology works and is used at home, school and the world of work and to know what devices contain a computer. 5. **Basic skills** - To practise basic skills: type, log on using a username	1. **Computer Science** - Children to give adult instructions to make a jam sandwich, follow instructions exactly and children to debug - Use bee bots (can create a maze) and J2code to write simple programs and debug when there are errors 2. **Internet, networks and the web** - Cover this information during e safety lesson 3. **Multimedia and communication** - Create a short advert using film and pic collage - Create a class pictogram on J2 data 4. **IT in the world** - Discreet sessions about the use of technology and computers 5. **Basic skills** - Use a mixture of iPad and laptop to practise computer skills. Guided group	Ipads Seesaw chatterpix kiddle Pic Collage Beebots J2code Laptops J2data	

	and password, close down, log off, touch screen, save work, open a program from the Start Menu.	in the discovery zone		
Year 2	1. **Computer Science** ● To be able to follow, give, and read simple sets of instructions. Understanding that a computer needs precise instructions and know that an 'algorithm/program' is a list of instructions ● To solve a problem by breaking it down into small steps. ● To plan and write a simple program with increasing complexity and debug problems 2. **Internet, networks and the web** ● To understand what a computer is and the basics of the internet. 3. **Multimedia and communication** ● To record audio and listen back to recordings, take photos and record a short film. ● To use different software and apps to present work such as *PicCollage* ● Data handling and analysis including pictogram ● Make simple digital compositions, using samples of music or sounds. ● To create and deliver a multimedia presentation on a given topic - including data handling and collecting data ● Contribute to class blog 4. **IT in the world** ● To understand some of the ways that technology works and is used at home, school and the world of work and to know what devices contain a computer. 5. **Basic skills** ● To practise basic skills: type, log on using a username and password, close down, log off, touch screen, save work, open a program from the Start Menu, print work, use 2 or more apps in combination	1. **Computer Science** ● Children to give adult instructions to make a jam sandwich, follow instructions exactly and children to debug ● Use beebots (can create a maze) and J2code to write simple programs and debug when there are errors. Increased complexity from Year 1. 2. **Internet, networks and the web** ● Cover this information during e safety lesson 3. **Multimedia and communication** ● Create a short advert using film and pic collage ● Create a class pictogram on J2 data ● During RE week - create a presentation (google slides) on research on year group religion to present to another year group. 4. **IT in the world** ● Discreet sessions about the use of technology and computers 5. **Basic skills** ● Use a mixture of iPad and laptop to practise computer skills. Stand alone sessions	Ipads Seesaw chatterpix kiddle Pic Collage Beebots J2code Laptops J2data	
Year 3	1. **Computer Science** ● To approach problems in a systematic and logical way ● To understand the meaning of: an algorithm, a program and read, explain, write and predict the outcome of a simple program. ● To be able to independently identify and debug errors in a program 2. **Internet, networks and the web** ● To understand computer networks, the range of devices containing a computer, the internet and the use of email, video conferencing, blogs forums & social networks. ● To appropriately present and communicate ideas to an audience + review and evaluate others' work.	1. **Computer Science** ● Learning these words and skills through coding on probots - link to maths direction targets by coding the probot around a maze. Children start by physically completing a maze and thinking about the kind of instructions (algorithms) they use. ● Have some code ready for children to predict what would be the outcome of the code and have a ready coded maze for children to fix/debug. 2. **Internet, networks and the web** ● During e-safety sessions, cover this information of how a computer works, how the internet works and understand how to keep safe on blogs, email, social networks etc.	Puppet pals Garage band Seesaw iMovie iMotion SeeSaw BeeBots Probots J2code Tynker Google slides J2data	

	3. **Multimedia and communication** ● To use technology to create music, digital designs, photography (including editing), short films and animation. ● To share ideas to blogs including adding text, images, commenting and sharing ideas. 4. **IT in the world** ● To create, improve, and deliver a multimedia presentation on a given topic, e.g. presenting data from a maths / science investigation from produced graphs and charts. 5. **Basic skills** ● To practise basic computing skills: logging on/off, typing fluency, print screen, using apps together, save work (organise and retrieve), print work, opening programmes.	3. **Multimedia and communication** ● Make music using garage band relating to a particular topic. Create music to match the atmosphere. ● Use drawing feature on SeeSaw or another app to create a digital design ● Photo project - can link to learning about plants - can edit photos directly on the iPad without the use of an app ● Use iMovie to create a short film/advert (can link to persuasive writing) ● Use stop frame animation to retell a story (use in addition to talk for writing to remember a story) ● Throughout the year - specific activities on the blog including including these targets 4. **IT in the world** ● During RE week - create a presentation (google slides) on research on year group religion to present to another year group. ● Present data from a chosen maths or science project using graphs and charts. 5. **Basic skills** ● Use a mixture of iPad and laptop to practise computer skills. Stand alone sessions		
Year 4	1. **Computer Science** ● To approach problems in a systematic and logical way ● To understand the meaning of: an algorithm, a program and read, explain, write and predict the outcome of a simple program. ● To be able to independently identify and debug errors in a program ● To write programs/code that uses an 'if' and a 'repeat/loop' statement. 2. **Internet, networks and the web** ● To understand computer networks, the range of devices containing a computer, the internet and the use of email, video conferencing, blogs forums & social networks. ● To appropriately present and communicate ideas to an audience + review and evaluate others' work. 3. **Multimedia and communication** ● To use technology to create music, digital designs, photography (including editing), short films and animation. ● To share ideas to blogs including adding text, images, commenting and sharing ideas.	1. **Computer Science** ● Learning these words and skills through coding on scratch - link to maths direction targets by coding sprite around a maze in scratch. Children start by physically completing a maze and thinking about the kind of instructions (algorithms) they use. Use 'if' statement and use 'repeat/loop' statement in the maze ● Have some code ready for children to predict what would be the outcome of the code. ● Have a ready coded maze for children to fix. 2. **Internet, networks and the web** ● During e-safety sessions, cover this information of how a computer works, how the internet works and understand how to keep safe on blogs, email, social networks etc. 3. **Multimedia and communication** ● Make music using garage band relating to a particular topic. Create music to match the atmosphere. ● Use drawing feature on SeeSaw or another app to create a digital design ● Photo project - can link to learning about plants - can edit photos directly on the iPad without the use of an app ● Use iMovie to create a short film/advert (can link to persuasive writing) ● Use stop frame animation to retell a story (use in addition to talk for writing to remember a story) ● Throughout the year - specific activities on the blog including including these targets	Puppet pals Garage band Seesaw iMovie iMotion SeeSaw BeeBots Probots J2code Tynker Scratch Google slides J2data	

	4. **IT in the world** ● To create, improve, and deliver a multimedia presentation on a given topic, e.g. presenting data from a maths / science investigation from produced graphs and charts. 5. **Basic skills** ● To practise basic computing skills: logging on/off, typing fluency, print screen, using apps together, save work (organise and retrieve), print work, opening programmes.	4. **IT in the world** ● During RE week - create a presentation (google slides) on research on year group religion to present to another year group. ● Present data from a chosen maths or science project using graphs and charts. 5. **Basic skills** ● Use a mixture of iPad and laptop to practise computer skills. Stand alone sessions		
Year 5	1. **Computer Science** ● To approach problems in a systematic and logical way. ● Uses diagrams to help design and explain algorithms and programs + read and predict outcomes. ● To create a complex program that accomplishes a specific goal, including: a 'repeat/loop' statement and an 'if' statement; use variables. ● Debug errors and summeraise the program. 2. **Internet, networks and the web** ● To have a deeper understanding of how a computer works and how information is sent over the internet ● To understand the internet can be used for communication such as email, video conferencing, blogs, forums, social networks and experience collaboration + real-time collaboration. ● To have an understanding of how search engines rank results 3. **Multimedia and communication** ● To make independent choices about what technology is best to use to communicate and present ideas for a specific audience. ● To be able to review and evaluate multimedia work, listen to feedback, and make changes if necessary. ● To record and edit sound files by changing their length, adding different effects, splitting clips and combine several soundtracks ● To use drawing software to create digital designs or images. ● To use layers and effects with increasing complexity to create digital designs or images. ● To plan and take photos in different settings, understanding the effects of composition and lighting and edit them. ● To plan, record and edit a film, thinking about purpose, audience and intended message, including different types of shots and inputting text and transitions	1. **Computer Science** ● Learning these words and skills through coding on scratch - link to maths direction targets - mainly angles - by coding sprite to draw shapes in scratch. Children start by physically drawing shapes (using protractors to measure the angles) and thinking about the kind of instructions (algorithms) they use. ==Use 'if' statement and use 'repeat/loop' statement in the to create other designs.== ● Have some code of different shapes ready for children to predict what would be the outcome of the code. ● Have a ready coded shape for children to fix. 2. **Internet, networks and the web** ● During e-safety sessions, cover this information of how a computer works, how the internet works and understand how to keep safe on blogs, email, social networks etc. 3. **Multimedia and communication** ● Make music using garage band relating to a particular topic. Create music to match the atmosphere. ● Could use drawing feature on SeeSaw to create a digital design ● Photo project - can link to learning about plants - can edit photos directly on the iPad without the use of an app ● Use iMovie to create a short film/advert (can link to persuasive writing) ● Use stop frame animation to retell a story (use in addition to talk for writing to remember a story) ● Throughout the year - specific activities on the blog including including these targets	Puppet pals Garage band Seesaw iMovie iMotion SeeSaw Probots Scratch Google slides Padlet J2data How to draw: A square:	

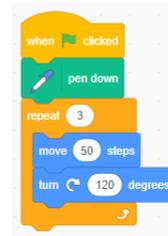|				
	● To plan, record and edit an animation with several scenes. ● To understand email etiquette, to use it to communicate and understand what to do with spam mail. 4. **IT in the world** ● To create, review, improve, and deliver a multimedia presentation on a given topic. ● To use a range of different presentation tools, choosing the most appropriate for the project and audience. ● To use blogs to share, discuss and develop ideas with others through more extended writing. Also to add images and videos to the blog. ● Collect data using a digital device and input into a spreadsheet or database. ● Perform basic searches in databases. ● To produce different kinds of charts and graphs and analyse data and graphs and draw conclusions. ● To present data in the most appropriate way for purpose and audience. ● To understand some of the ways that technology works and is used at home, school and the world of work and consider possible future developments and impact on society. 5. **Basic skills** ● To practise basic computing skills: type with increasing fluency; to know keyboard shortcuts; understand how and where technology is used; use apps together; saved work in a variety of ways using a cloud; organise folders; retrieve saved work; fix technical problems; manage computer settings; use tutorials to self teach.	4. **IT in the world** ● During RE week - create a presentation (google slides) on research on year group religion to present to another year group. ● Present data from a chosen maths or science project using graphs and charts. 5. **Basic skills** ● Use a mixture of iPad and laptop to practise computer skills. Stand alone sessions	A triangle:	
Year 6	1. **Computer Science** ● To approach problems in a systematic and logical way. ● Uses diagrams to help design and explain algorithms and programs + read and predict outcomes. ● To create a complex program that accomplishes a specific goal, including: a 'repeat/loop' statement and an 'if' statement; use variables. ● Debug errors and summeraise the program. 2. **Internet, networks and the web** ● To have a deeper understanding of how a computer works and how information is sent over the internet ● To understand the internet can be used for communication such as email, video conferencing, blogs, forums, social networks and experience collaboration + real-time collaboration. ● To have an understanding of how search engines rank results	1. **Computer Science** ● Learning these words and skills through coding on scratch - link to maths direction targets - mainly angles - by coding sprite to draw shapes in scratch. Children start by physically drawing shapes (using protractors to measure the angles) and thinking about the kind of instructions (algorithms) they use. ==Use 'if' statement and use 'repeat/loop' statement in the to create other designs.== ● Have some code ready for children to predict what would be the outcome of the code. ● Have a ready coded maze for children to fix. 2. **Internet, networks and the web** ● During e-safety sessions, cover this information of how a computer works, how the internet works and understand how to keep safe on blogs, email, social networks etc.	Puppet pals Garage band Seesaw iMovie iMotion SeeSaw Probots Scratch Google sheets Google slides Padlet J2data	

3. Multimedia and communication
- To make independent choices about what technology is best to use to communicate and present ideas for a specific audience.
- To be able to review and evaluate multimedia work, listen to feedback, and make changes if necessary.
- To record and edit sound files by changing their length, adding different effects, splitting clips and combine several soundtracks
- To use drawing software to create digital designs or images.
- To use layers and effects with increasing complexity to create digital designs or images.
- To plan and take photos in different settings, understanding the effects of composition and lighting and edit them.
- To plan, record and edit a film, thinking about purpose, audience and intended message, including different types of shots and inputting text and transitions
- To plan, record and edit an animation with several scenes.
- To understand email etiquette, to use it to communicate and understand what to do with spam mail.

4. IT in the world
- To create, review, improve, and deliver a multimedia presentation on a given topic.
- To use a range of different presentation tools, choosing the most appropriate for the project and audience.
- To use blogs to share, discuss and develop ideas with others through more extended writing. Also to add images and videos to the blog.
- Collect data using a digital device and input into a spreadsheet or database.
- Perform basic searches in databases.
- To produce different kinds of charts and graphs and analyse data and graphs and draw conclusions.
- To present data in the most appropriate way for purpose and audience.
- To understand some of the ways that technology works and is used at home, school and the world of work and consider possible future developments and impact on society.

5. Basic skills
- To practise basic computing skills: type with increasing fluency; to know keyboard shortcuts; understand how and where technology is used; use apps together; saved work in a variety of ways using a cloud; organise folders; retrieve saved work; fix technical problems; manage computer settings; use tutorials to self teach.

3. Multimedia and communication
- Make music using garage band relating to a particular topic. Create music to match the atmosphere.
- Could use drawing feature on SeeSaw to create a digital design
- Photo project - can link to learning about plants - can edit photos directly on the iPad without the use of an app
- Use iMovie to create a short film/advert (can link to persuasive writing)
- Use stop frame animation to retell a story (use in addition to talk for writing to remember a story)
- Throughout the year - specific activities on the blog including including these targets

4. IT in the world
- During RE week - create a presentation (google slides) on research on year group religion to present to another year group.
- Present data from a chosen maths or science project using graphs and charts.

5. Basic skills
- Use a mixture of iPad and laptop to practise computer skills. Stand alone sessions

How to draw:
A square:

A triangle:

Year group	E Safety targets summarised
EYFS	**Self-image and identity** I can recognise that I can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset in real life and online. **Online relationships** I can recognise some ways in which the internet can be used to communicate and give examples of how to do this. **Online reputation** I can identify ways that I can put information on the internet. **Online bullying** I can describe ways that some people can be unkind online and how this makes others feel. **Managing online information** I can talk about how I can use the internet to find things out and know different ways to find information. **Health, well-being and lifestyle** I can identify rules that help keep us safe and healthy in and beyond the home when using technology and give simple examples. **Privacy and security** I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location) and explain who you should/shouldn't share this with. I can describe the people I can trust and can share this with; I can explain why I can trust them. **Copyright and ownership** I know that work I create belongs to me and name it so others know who it belongs to. I can name my work so that others know it belongs to me.
1	**Self-image and identity** I can recognise that there may be people online who could make me feel sad, embarrassed or upset and to know to let a trusted adult know. **Online relationships** I can use the internet with adult support to communicate with people I know and why we need to be kind to people online **Online reputation** 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. **Online bullying** I can describe how to behave online in ways that do not upset others and can give examples. **Managing online information** I can use the internet to find things out by entering keywords into search engines. I can describe and demonstrate how to get help from a trusted adult or helpline if I find content that makes me feel sad, uncomfortable, worried or frightened. **Health, well-being and lifestyle** I can explain rules to keep us safe when we are using technology both in and beyond the home and give examples of these rules. **Privacy and security**

	I can recognise more detailed examples of information that is personal to me (e.g. where I live, my family's names, where I go to school) and explain why you should asked a trusted adult before sharing personal information online. I can explain how passwords can be used to protect information and devices. **Copyright and ownership** I can explain why work I create using technology belongs to me (e.g. 'it is my idea' or 'I designed it') and to save work so others know who it belongs to.
2	**Self-image and identity** I can explain how other people's identity online can be different to their identity in real life and why people make themselves look different online. I can give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help. **Online relationships** I can use the internet to communicate with people I don't know well (e.g. email a penpal in another school/ country) and give examples of the technology you can use. **Online reputation** I can explain how information put online about me can last for a long time and who to talk to if I think someone has made a mistake about putting something online. **Online bullying** I can give examples of bullying behaviour and how it could look online. I understand how bullying can make someone feel. I can talk about how someone can/would get help about being bullied online or offline. **Managing online information** I can use keywords in search engines and 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 (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'; also explain why things online sometimes aren't true. **Health, well-being and lifestyle** I can explain simple guidance for using technology in different environments and settings and I can say how those rules/guides can help me. **Privacy and security** I can describe how online information about me could be seen by others and explain some rules for keeping my information private. I can explain what passwords are and can use passwords for my accounts and devices. I can explain how many devices in my home could be connected to the internet and can list some of those devices. **Copyright and ownership** I can describe why other people's work belongs to them and can recognise that content on the internet may belong to other people.
3	**Self-image and identity** I can explain how other people's identity online can be different to their identity in real life and why people make themselves look different online. I can give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help. **Online relationships** I can use the internet to communicate with people I don't know well (e.g. email a penpal in another school/ country) and give examples of the technology you can use. **Online reputation** I can explain how information put online about me can last for a long time and who to talk to if I think someone has made a mistake about putting something online. **Online bullying** I can give examples of bullying behaviour and how it could look online. I understand how bullying can make someone feel. I can talk about how someone can/would get help about being bullied online or offline. **Managing online information** I can use keywords in search engines and 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 (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'; also explain why things online sometimes aren't true. **Health, well-being and lifestyle** I can explain simple guidance for using technology in different environments and settings and I can say how those rules/guides can help me. **Privacy and security** I can describe how online information about me could be seen by others and explain some rules for keeping my information private. I can explain what passwords are and can use passwords for my accounts and devices. I can explain how many devices in my home could be connected to the internet and can list some of those devices. **Copyright and ownership** I can describe why other people's work belongs to them and can recognise that content on the internet may belong to other people.
4	**Self-image and identity** I can explain how my online identity can be different to the identity I present in 'real life' and make the right decisions about how I interact with others and how others perceive me. **Online relationships** I can describe strategies for safe and fun experiences in a range of online social environments. I can give examples of how to be respectful to others online. **Online reputation** I can describe how others can find out information about me by looking online. I can explain ways that some of the information about me online could have been created, copied or shared by others. **Online bullying** I can identify some online technologies where bullying might take place and describe ways people can be bullied through a range of media (e.g. image, video, text, chat). I can explain why I need to think carefully about how content I post might affect others, their feelings and how it may affect how others feel about them (their reputation). **Managing online information** I can analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. I understand what criteria have to be met before something is a 'fact'. I can describe how I can search for information within a wide group of technologies (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 that some people I 'meet online' (e.g. through social media) may be computer programmes pretending to be real people. I can explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true. **Health, well-being and lifestyle** I can explain how using technology can distract me from other things I might do or should be doing. I can identify times or situations when I might need to limit the amount of time I use technology. I can suggest strategies to help me limit this time. **Privacy and security** I can explain what a strong password is. I can describe strategies for keeping my personal information private, depending on context. I can explain that others online can pretend to be me or other people, including my friends and can suggest reasons why they might do this. I can explain how internet use can be monitored. **Copyright and ownership** 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 and can give some simple examples.

5	**Self-image and identity** I can explain how identity online can be copied, modified or altered and can demonstrate responsible choices about my online identity, depending on context. **Online relationships** 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 I can give examples of technology- fault. I can make positive contributions and be part of online communities. I can describe some of the communities in which I am involved and describe how I collaborate with others positively. **Online reputation** I can search for information about an individual online and create a summary report of the information I find. I can describe ways that information about people online can be used by others to make judgments about an individual. **Online bullying** I can recognise when someone is upset, hurt or angry online and can describe how to get help for someone that is being bullied online and assess when I need to do or say something or tell someone. I can explain how to block abusive users and how I would report online bullying on the apps and platforms that I use. I can describe the helpline services who can support me and what I would say and do if I needed their help (e.g. Childline). **Managing online information** I can use different search technologies. I can evaluate digital content and can explain how I make choices from search results. I can explain key concepts including: data, information, fact, opinion, belief, true, false, valid, reliable and evidence. I understand the difference between online mis-information (inaccurate information distributed by accident) and dis-information (inaccurate information deliberately distributed and intended to mislead). 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 explain what is meant by a 'hoax'. I can explain why I need to think carefully before I forward anything online. I can explain why some information I find online may not be honest, accurate or legal. 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 either by accident or on purpose). **Health, well-being and lifestyle** I can describe ways technology can affect healthy sleep and can describe some of the issues and strategies, tips or advice to promote healthy sleep with regards to technology. **Privacy and security** I can create and use strong and secure passwords. I can explain how many free apps or services may read and share my private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. I can explain how and why some apps may request or take payment for additional content (e.g. in-app purchases) and explain why I should seek permission from a trusted adult before purchasing. **Copyright and ownership** 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.
6	**Self-image and identity** I can describe ways in which the media can shape ideas about gender and identify messages about gender roles and make judgements based on them. I can challenge and explain why it is important to reject inappropriate messages about gender online. I can describe issues online that might make me or others feel sad, worried, uncomfortable or frightened. I know and can give examples of how I might get help, both on and offline. I can explain why I should keep asking until I get the help I need. **Online relationships** I can show I understand my responsibilities for the well-being of others in my online social group. I can explain how impulsive and rash communications online may cause problems (e.g. flaming, content produced in live streaming). I can demonstrate how I would support others (including those who are having difficulties) online and can demonstrate ways of reporting problems online for both myself and my friends. **Online reputation** I can explain how I am developing an online reputation which will allow other people to form an opinion of me and can describe some simple ways that help build a positive online reputation.

Online bullying
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 identify a range of ways to report concerns both in school and at home about online bullying.

Managing online information
I can use search technologies effectively.
I can explain how search engines work and how results are selected and ranked.
I can demonstrate the strategies I would apply to be discerning in evaluating digital content.
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'.
I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how I might encounter these online (e.g. advertising and 'ad targeting').
I can demonstrate strategies to enable me to analyse and evaluate the validity of 'facts' and I can explain why using these strategies are important.
I can identify, flag and report inappropriate content.

Health, well-being and lifestyle
I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.
I can assess and action different strategies to limit the impact of technology on my health (e.g. nightshift mode, regular breaks, correct posture, sleep, diet and exercise).
I can explain the importance of self-regulating my use of technology; I can demonstrate the strategies I use to do this (e.g. monitoring my time online, avoiding accidents).

Privacy and security
I use different passwords for a range of online services and can describe effective strategies for managing those passwords (e.g. password managers, acronyms, stories) also know what to do if my password is lost or stolen.
I can explain what app permissions are and can give some examples from the technology or services I use.
I can describe simple ways to increase privacy on apps and services that provide privacy settings.
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).

Copyright and ownership
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.

Purpose of study

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Aims

The national curriculum for computing aims to ensure that all pupils:

§ can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation

§ can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems

§ can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems

§ are responsible, competent, confident and creative users of information and communication technology.