

Sparken Hill Academy

Computing Progression Document

In this document, we have put together a comprehensive list of 'I Can' statements for every element of the computing curriculum from EYFS - Year 6. We feel this will demonstrate a clear progression of skills/knowledge that will help staff best implement computing in their school.

We have broken the computing curriculum into these areas:

Information Technology	Computer Science	Digital Literacy
<u>Word Processing/Typing</u>	<u>Computational Thinking</u>	<u>Self Image and Identity</u>
<u>Data Handling</u>	<u>Coding/Programming</u>	<u>Online Relationships</u>
<u>Presentations, Web Design and eBook Creation</u>	<u>Computer Networks</u>	<u>Online Reputation</u>
<u>Animation</u>		<u>Online Bullying</u>
<u>Video Creation</u>		<u>Managing Online Information</u>
<u>Photography and Digital Art</u>		<u>Health, Wellbeing and Lifestyle</u>
<u>Augmented Reality and Virtual Reality</u>		<u>Privacy and Security</u>
<u>Sound</u>		<u>Copyright and Ownership</u>

How to implement this document:

As with most of the ideas the feel the majority of computing should be embedded across the curriculum. Most schools will be timetabled to a Computing session each week, however knowing how packed a weekly timetable can be, we hope this approach will allow for flexibility. We would recommend the timetabled computing session to focus on one of two elements: **An Explicit Computer Science lesson** or **A Tinkering Session**. The computer science part of the computing curriculum will often, but not always, need a more explicit approach. That is not to say it can't be embedded across the curriculum. A tinkering session looks at introducing a new app or tool and giving children opportunity to experiment and familiarise themselves with the different elements and tools before it can be applied in a more focused approach across the curriculum.

Do you have to have a timetabled computing lesson each week? Not necessarily. We know how packed the curriculum can be and how difficult it is trying to fit everything in. Therefore, some weeks computing can be covered by using technology to demonstrate learning in other subjects.

For example: If my class were covering World War 2 in Year 6 and we are exploring how the Second World War started, I could set the children the task of creating a video explaining this. First, the children may want to research some more information about how the Nazi party rose to power. This would involve covering some Digital Literacy: 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.*

If the pupils were to then create a video using an app such as Adobe Spark Video to demonstrate their learning, they would be covering some of the Information Technology: Video Creation -

- *I can create videos using a range of media - green screen, animations, film and image.*

If the pupils were to then upload or publish their work on a blog or platform such as Seesaw, we would also be covering this objective from Information Technology: Word Processing objectives -

- *I can publish my documents online regularly and discuss the audience and purpose of my content.*

Even though this would be a History lesson, we would be covering a fair few computing objectives therefore if we need to spend more time on other subjects that week, we are still covering computing without having a timetabled computing session. This is the way we want computing delivered in Primary schools, embedded to allow learning to be more accessible and allow learners to be more creative in demonstrating their learning.

Information Technology

This part of the curriculum is essentially most of the old ICT curriculum. As stated in the introduction, most of these objectives should be covered by using tech creatively across the rest of the curriculum, although it may be necessary to teach some discrete skills, hence the tinkering sessions. Learners should know that technology is everywhere, be able to identify the technology they encounter and have a growing understanding of how it works.

We have broken down this part of computing into activities for word processing, spreadsheets and data handling, presentation, ebook creation, web design, animation, video creation, photography and art, sound and AR & VR. When using these ideas to create content everything should link closely to digital literacy – awareness of audience and good design principles. Pupils should experience a range of different apps and software all of which are demonstrated on MrPICT.com. Lower down the school, the teacher will select the programs to use but as pupils get older they should be encouraged to make their own choices.

Learners also need to know how to store and organise their files online and locally so that it can easily be found again. As discussed on the website, Seesaw is a fantastic tool to use for this.

Computing Progression Document

Word Processing/Typing

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I can play on a touch screen game and use computers/keyboards/mouse in role play • I can type letters with increasing confidence using a keyboard and tablet. • I can dictate short, clear sentences into a digital device.	<u>Seesaw</u> , <u>Word</u> , <u>Pages</u> <u>Google Docs</u> <u>Pic Collage</u> ,
I	Co2/I.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content	• I can confidently type words quickly and correctly on a digital device. • I can use the space bar to make space and delete to delete letters/words • I can make a new line using enter/return • I can dictate into a digital device more accurately and with punctuation.	<u>Seesaw</u> , <u>Word</u> , <u>Pages</u> <u>Google Docs</u> <u>Pic Collage</u> , <u>Book Creator</u> ,
2		• I can use the space bar only once between words and use touch to navigate to words letter to edit • I can copy and paste images and text • Use caps locks for capital letters. • I can add images alongside text in a word processed document. • I can dictate longer passages into a digital device with accurate punctuation.	<u>Seesaw</u> , <u>Word</u> , <u>Pages</u> <u>Google Docs</u> <u>Pic Collage</u> , <u>Keynote</u> <u>Book Creator</u> , <u>Popplet</u>

Computing Progression Document

Word Processing/Typing

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
3	Co2/I.6 select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	- I can use index fingers on keyboard home keys (f/j), use left fingers for a/s/d/f/g, and use right fingers for h/j/k/l - I can edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows. - I can use cut, copy and paste to quickly duplicate and organise text.	Seesaw , Word , Pages Google Docs Keynote Book Creator , Popplet
4		- I can combine digital images from different sources, objects, and text to make a final piece of a variety of tasks: posters, documents, eBooks, scripts, leaflets. - Confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text - Use font sizes appropriately for audience and purpose. Use spell check and thesaurus including through Siri and other AI technology	Seesaw , Word , Pages Google Docs Keynote Book Creator , Popplet
5		- I can start to apply other useful effects to my documents such as hyperlinks. - I can import sounds to accompany and enhance the text in my document. - I can organise and reorganise text on screen to suit a purpose	Seesaw , Word , Pages Google Docs Keynote Book Creator , Popplet
6		- I can confidently choose the best application to demonstrate my learning. - I can format text to suit a purpose. - I can publish my documents online regularly and discuss the audience and purpose of my content.	Seesaw , Word , Pages Google Docs Keynote Book Creator , Popplet

Computing Progression Document

Data Handling

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I can identify a chart. • I can sort physical objects, take a picture and discuss what I have done. • I can present simple data on a digital device.	<u>Seesaw</u> ,
1	Co2/I.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• I can sort images or text into two or more categories on a digital device. • I can collect data on a topic. • I can create a tally chart and pictogram. • I can record myself explaining what I have done and what it shows me.	<u>Seesaw</u> , <u>Pic Collage</u>
2		• I can sort digital objects into a range of charts such as Venn diagrams, carroll diagrams and bar charts using different apps and software. • I can orally record myself explaining what the data shows me. • I can create a branching database using questions	<u>Seesaw</u> , <u>Pic Collage</u> , <u>Plickers</u> <u>Google Sheets</u> , <u>Google Forms</u> , Excel, <u>Numbers</u> ,

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Data Handling

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
3	Co2/1.6 select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	- I can create my own sorting diagram and complete a data handling activity with it using images and text. - I can start to input simple data into a spreadsheet. - I can create a feelings chart exploring a story or character's feelings.	Google Sheets , Google Forms , Excel, Numbers ,
4		- I can create my own online multiple choice questionnaire. - I can input data into a spreadsheet and export the data in a variety of ways: charts, bar charts, pie charts. - I understand how data is collected.	Google Sheets , Google Forms , Excel, Numbers , Kahoot
5		- I can create and publish my own online questionnaire and analyse the results. - I can use simple formulae to solve calculations including =sum and other statistical functions - I can edit and format difference cells in a spreadsheet.	Google Sheets , Google Forms , Excel, Numbers , Mentimeter
6		- I can write spreadsheet formula to solve more challenging maths problems. - I can create and publish my own online quiz with a range of media (images and video)	Google Sheets , Google Forms , Excel, Numbers ,

Computing Progression Document

Presentations, web design and eBook Creation

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I can record my voice over a picture. • I can create a simple digital collage. • I can move and resize images with my fingers or mouse.	<u>Seesaw</u>
1	Co2/I.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• I can add labels to an image • I can order images to create a simple storyboard. • I can create a simple spider diagram. • I can sequence a series of pictures to explain my understanding of a topic.	<u>Seesaw, Pic Collage</u>
2		• I can add voice labels to an image. • I can add a voice recording to a storyboard. • I can add speech bubbles to an image to show what a character thinks. • I can import images to a project from the web and camera roll	<u>Seesaw, Pic Collage, Balloon Stickies +, Thinglink, Book Creator,</u>

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Presentations, web design and eBook Creation

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
3	Co2/1.6 select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	• I can create an interactive comic with sounds, formatted text and video. • I can annotate an image with videos • I can create a simple web page. • I can create a simple digital timeline/mindmap	Balloon Stickies +, Google Sites , Book Creator , Keynote , Adobe Spark Page , Thinglink ,
4		• I can create an interactive quiz eBook introducing hyperlinks. • I can create an eBook with text, images and sound. • I can create a presentation demonstrating my understanding with a range of media. • I can create a digital timeline/mindmap and include different media - sound and video.	Google Sites , Book Creator , Keynote , Powerpoint , Adobe Spark Page , Thinglink ,
5		• I can collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365 • I can create and export an interactive presentation including a variety of media, animations, transitions and other effects. • I can create an interactive guide to a image by embedding digital content and publishing it online. • I can create a webpage and embed video.	Google Sites , Book Creator , Keynote , Powerpoint , Wakelet , Adobe Spark Page , Thinglink ,
6		• I can create a web site which includes a variety of media. • I can design an app prototype that links multimedia pages together with hyperlinks. • I can choose applications to communicate to a specific audience. • I can evaluate my own content and consider ways to improvements.	Google Sites , Book Creator , Keynote , Powerpoint , Wakelet , Adobe Spark Page , Thinglink ,

Computing Progression Document

Animation

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	- I can animate a simple image to speak in role - I can create a simple animation to tell a story including more than one character.	<u>Puppetpals,</u> <u>ChatterPix Kids,</u>
1	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	- I can add filters and stickers to enhance an animation of a character. - I can create an animation to tell a story with more than one scene. - I can add my own pictures to my story animation.	<u>Puppetpals,</u> <u>ChatterPix Kids,</u> <u>I Can Animate,</u> <u>Seesaw,</u>
2		- I can create multiple animations of an image and edit these together. - I can create a simple stop motion animation. - I can explain how an animation/flip book works	<u>Puppetpals,</u> <u>ChatterPix Kids,</u> <u>I Can Animate,</u> <u>Seesaw,</u>

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Animation

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
3	Co2/1.6 select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	- I can create animations of faces to speak in role with more life-like realistic outcomes. - I can improve stop motion animation clips with techniques like onion skinning. - I can use animation tools in presenting software to create simple animations.	Puppetpals , ChatterPix Kids , Animate Anything , I Can Animate , iFunFace , Seesaw , Plotagon , Puppetmaster , Toontastic ,
4		- I can take multiple animations of a character I have created and edit them together for a longer video. - I can use software to create a 3D animated story. - I can use line draw tool to create animations.	Puppetpals , ChatterPix Kids , Animate Anything , I Can Animate , iFunFace , Seesaw , Plotagon , Puppetmaster , Toontastic ,
5		- I can record animations of different characters and edit them together to create an interview. - I can add green screen effects to a stop motion animation. - I can create flip book animation using digital drawings and export as a Gif or video	Puppetpals , ChatterPix Kids , Animate Anything , I Can Animate , iFunFace , Seesaw , Plotagon , Puppetmaster , Toontastic ,
6		- I can mix animations and videos recordings of myself to create video interviews. - I can plan, script and create a 3D animation to explain a concept or tell a story. - I can choose and create different types of animations to best explain my learning.	Puppetpals , ChatterPix Kids , Animate Anything , I Can Animate , iFunFace , Seesaw , Plotagon , Puppetmaster , Toontastic ,

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Video Creation

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I know the difference between a photography and video. • I can record a short film using the camera • I can record and play a film • I can watch films back	Camera App Shadow Puppets Edu,
1	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• I can record a film using the camera app. • I can select images and record a voiceover. • I can highlight and zoom into images as I record.	Doink Greenscreen, iMovie, Shadow Puppets Edu,
2		• I can write and record a script using a teleprompter tool. • I can use tools to add effects to a video • I can begin to use green screen techniques with support	Doink Greenscreen, iMovie, Shadow Puppets Edu, Adobe Spark Video,

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Video Creation

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
3	Co2/1.6 select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	- I can sequence clips of mixed media in a timeline and record a voiceover - I can trim and cut film clips and add titles and transitions - I can independently create a green screen clip. - I can create my own movie trailer.	Doink Greenscreen , iMovie , Shadow Puppets Edu , Adobe Spark Video , Videorama , Apple Clips Explain Everything
4		- I can add music and sound effects to my films - I can add animated titles and transitions - I can add simple subtitles to a video clip. - I can use confidently use green screen adding animated backgrounds.	Doink Greenscreen , iMovie , Shadow Puppets Edu , Adobe Spark Video , Videorama , Apple Clips Explain Everything
5		- I can use cutaway and split screen tools in iMovie. - I can evaluate and improve the best video tools to best explain my understanding. - I can further improve green screen clips using crop and resize and explore more creative ways to use the tool - wearing green clothes and the masking tool.	Doink Greenscreen , iMovie , Shadow Puppets Edu , Adobe Spark Video , Videorama , Apple Clips Explain Everything
6		- I can use the green screen masking tool with more than one character. - I can use picture in picture tools in iMovie. - I can add animated subtitles to my film to further enhance my creation. - I can create videos using a range of media - green screen, animations, film and image.	Doink Greenscreen , iMovie , Shadow Puppets Edu , Adobe Spark Video , Videorama , Apple Clips Explain Everything

Computing Progression Document

Photography and Digital Art

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I can take a photograph • I can take a photograph and use it in an app • I can use a painting app and explore the paint and brush tools	Camera Mark up Photo booth Seesaw Draw & Tell
1	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• I can edit a photo with simple tools • I can use a paint/drawing app to create a digital image • I can begin to cut out an image to layer on another image.	Camera Mark up Photobooth Seesaw Keynote Pic Collage Notes
2		• I can edit a photo (crop, filters, mark up etc) • I can select and use tools to create digital imagery - controlling the pen and using the fill tool • I can cut images with accuracy to layer on other images.	Camera Mark up Photobooth Seesaw Keynote Pic Collage Notes

Computing Progression Document

Photography and Digital Art

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
3	Co2/1.6 select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	- I can confidently take and manipulate photos - I can create a digital image using a range of tools, pens, brushes and effects - I can create transparent images with Instant Alpha	Camera and Mark up, Notes Seesaw Keynote Pic Collage Sketches Pro Paper
4		- I can enhance digital images and photographs using crop, brightness, contrast & resize - I can manipulate shapes to create digital art. - I can draw a series of images and export as an animated GIF	Camera and Mark up, Notes Seesaw Keynote Pic Collage Sketches Pro Paper
5		- I can make a digital photo using camera settings - I can enhance digital photos and images using crop, brightness and resize tools - I can link and explain how to photoshop images and how this is used in the media	Camera and Mark up, Notes Seesaw Keynote Pic Collage Sketches Pro Paper
6		- I can edit a picture to remove items, add backgrounds, merge 2 photos - I can evaluate and discuss images explaining effects and filters that have been used to enhance the media. - Use a 3D drawing app to create a realistic representation of world objects	Camera and Mark up, Notes Seesaw Keynote Pic Collage Sketches Pro Paper

Computing Progression Document

Augmented Reality and Virtual Reality

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I can scan a QR code. • I can explore a 360 image. • I can talk about AR objects in my class	<u>AR Makr</u> , <u>Google Expeditions</u> <u>Figment AR</u> <u>LEO AR Camera</u>
1	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• I can explore an interactive 360 image. • I can scan a trigger image to begin a AR experience. • I can pretend to interact with AR objects.	<u>AR Makr</u> , <u>Google Expeditions</u> <u>Figment AR</u>
2		• I can draw my own 360 image and explore it in VR. • I can bring objects into my surroundings using Augmented Reality. • I can create my own QR code.	<u>AR Makr</u> , <u>Thinglink</u> , <u>Keynote</u> , <u>Google Expeditions</u> <u>Figment AR</u>

Computing Progression Document

Augmented Reality and Virtual Reality

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
3	Co2/1.6 select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	- I can create my own digital 360 image and explore it in VR - I can create my own images and bring it into my surroundings through AR.	<u>AR Makr,</u> <u>Thinglink, Keynote,</u> <u>Google Tour Creator,</u> <u>Google Expeditions</u> <u>EyeJack, Figment AR</u>
4		- I can create my own 360 video. - I can use the camera to create a 360 image. - I can add multiple objects into my surroundings through AR to explain a concept.	<u>AR Makr,</u> <u>Thinglink, Keynote,</u> <u>Google Tour Creator,</u> <u>Google Expeditions</u> <u>EyeJack, Figment AR</u>
5		- I can create an interactive VR experience. - I can create an animated object and bring it into my surroundings through AR - I can create an AR experience using objects I have created to explain a concept.	<u>AR Makr, Adobe Aero,</u> <u>Thinglink, Keynote,</u> <u>Google Tour Creator,</u> <u>Google Expeditions</u> <u>EyeJack, Merge Cube, Figment AR</u>
6		- I can create and upload my own VR Google Expedition. - I can create an interactive poster using AR - I can explain how VR and AR works.	<u>AR Makr, Adobe Aero,</u> <u>Thinglink, Keynote,</u> <u>Google Tour Creator,</u> <u>Google Expeditions</u> <u>EyeJack, Merge Cube, Figment AR</u>

Computing Progression Document

Sound

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I can record sounds with different resources • I can find ways to change your voice (tube, tin can, shouting to create an echo) • I can record sounds/voices in storytelling and explanations	<u>Seesaw</u> , Voice Memos, <u>Keezy</u> ,
1	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• I can create a sequence of sounds (instruments, apps/software) • I can explore short and long sounds. • I can record my voice and add different effects.	<u>Seesaw</u> , Voice Memos, <u>Keezy</u> ,
2		• Create a musical composition using software • I can record my own sound effects. • I can record my voice over a compositions to perform a song.	<u>Seesaw</u> , Voice Memos, <u>Garageband</u> , <u>Anchor</u> , <u>Keezy</u> ,

Computing Progression Document

Sound

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
3	Co2/I.6 select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	- I can create and edit purposeful compositions using music software to create mood or a certain style - I can experiment with live loops to create a song.	<u>Seesaw</u> , <u>Voice Memos</u> , <u>Garageband</u> , <u>Anchor</u> , <u>Keezy</u> ,
4		- Edit sound effects for a purpose. - Create a simple four chord song following the correct rhythm. - I can record a radio broadcast or audiobook.	<u>Seesaw</u> , <u>Voice Memos</u> , <u>Garageband</u> , <u>Anchor</u> , <u>Keezy</u> ,
5		- Add voice over and edit sound clips (volume, pitch, fade, effect) to create a podcast. - Create a remix of a popular song.	<u>Seesaw</u> , <u>Voice Memos</u> , <u>Garageband</u> , <u>Anchor</u> , <u>Keezy</u> ,
6		- Add voice over and edit sound clips (volume, pitch, fade, effect) to use in a film or radio broadcast (podcast) - Compose a soundtrack that can be added to a film project.	<u>Seesaw</u> , <u>Voice Memos</u> , <u>Garageband</u> , <u>Anchor</u> , <u>Keezy</u> ,

Computer Science

Computer science has been broken down into three strands: Computational Thinking, Programming and Computer Networks.

Computational Thinking is all about solving problems effectively with or without a computer. Computational thinking is about looking at a problem in a way in which a computer can help us to solve it. This is a two-step process:

1. First, we think about the sequence of steps (an algorithm) needed to solve a problem
2. Then, we use our technical skills to get the computer working on the problem as we implement our algorithm as code.

As demonstrated with Dr Chips' support videos, a lot of these objectives can be applied across the curriculum.

Programming is one application of computational thinking. Learners will write algorithms and implement these as code. They also need to be able to find mistakes and fix them (debugging.) Once learners have created a program they need to learn to evaluate and look at different ways to achieve the same goal and which method is most appropriate.

As learners get older the programs they write will become more complex using a range of constructs such as sequence, selection, repetition and variables in their programs.

KS 2 pupils also require knowledge of networks, such as the Internet, work and how searches are performed.

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Computational Thinking

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I can follow simple oral instructions • I can spot simple patterns, such as similarities and differences • I can sequence simple familiar tasks	MrPICT.com Resources
1	• Co2/1.1 understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • Co2/1.2 create and debug simple programs • Co2/1.3 use logical reasoning to predict the behaviour of simple programs	• I understand what algorithms are • I can write simple algorithms • I understand the sequence of algorithms is important • I can debug simple algorithms	MrPICT.com Resources
2		• I can write algorithms for everyday tasks • I can use logical reasoning to predict the outcome of algorithms • I understand decomposition is breaking objects/processes down • I can debug algorithms	MrPICT.com Resources

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Computational Thinking

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and</u>
3	- Co2/I.1 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts - Co2/I.2 use sequence, selection, and repetition in programs; work with variables and various forms of input and output - Co2/I.3 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs - Co2/I.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration	- I can create algorithms for my programming projects - I can decompose projects (such as an animation) into steps to create an algorithm - I understand abstraction is focusing on important information - I can identify patterns in an algorithm	MrPICT.com Resources
4		- I can use abstraction to focus on what's important in my design - I can write more precise algorithms for use when programming - I can use simple selection and repetition in algorithms - I can use logical reasoning to detect and correct errors in programs	MrPICT.com Resources
5		- I can solve problems by decomposing them into smaller parts - I can use selection in algorithms - I can use logical reasoning to explain how a variety of algorithms work - I can evaluate the effectiveness of algorithms	MrPICT.com Resources
6		- I can write precise algorithms for use when programming - I can decompose a design or code to focus on specific parts - I can use abstraction to hide complexity in my design or code - I can recognise and make use of patterns in my design and code - I can critically evaluate my work and suggest improvements	MrPICT.com Resources

Computing Progression Document

Coding and Programming

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	- I can use a mouse, touch screen or appropriate access device to target and select options on screen - I can input a simple sequence of commands to control a digital device with support	Beebot, Daisy The Dinosaur
1	Co2/I.1 understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions	- I can create a simple program on a digital device e.g. Bee Bot - I can use sequence in programs - I can locate and fix bugs in my program	Beebot, Scratch Jnr, Kodable,
2	- Co2/I.2 create and debug simple programs - Co2/I.3 use logical reasoning to predict the behaviour of simple programs	- I understand programs follow precise instructions - I can create programs using different digital devices E.g. Bee Bot or ScratchJr on a tablet - I can debug programs of increasing complexity - I can use logical reasoning to predict the outcome of simple programs	Beebot, Scratch Jnr, Kodable, Tynker,

Computing Progression Document

Coding and Programming

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
3	- Co2/I.1 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts - Co2/I.2 use sequence, selection, and repetition in programs; work with variables and various forms of input and output - Co2/I.3 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs - Co2/I.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration	- I can design a program - I can create a program using a design - I can create a sequence of code - I can work with different inputs - I can evaluate my program	Beebot, Scratch Jnr , Kodable, Tynker, Scratch 3 , Hopscotch, Swift Playgrounds ,
4		- I can use repetition in programs - I can use simple selection in programs - I can work with different outputs - I can use logical reasoning to systematically detect and correct errors in programs	Beebot, Scratch Jnr , Kodable, Tynker, Scratch 3 , Hopscotch, Swift Playgrounds ,
5		- I can create programs by decomposing them into smaller parts - I can use a variety of selection commands in programs - I can use conditions in repetition commands - I can work with variables - I can create programs that control or simulate physical systems - I can evaluate my work and identify errors	Beebot, Scratch Jnr , Kodable, Tynker, Scratch 3 , Hopscotch, Swift Playgrounds ,
6		- I can use a range of sequence, selection and repetition commands to implement my design - I can identify the need for, and work with, variables - I can create procedures to hide complexity in programs - I can identify and write generic code for use across multiple projects - I can critically evaluate my work and suggest improvements - I can identify and use basic HTML tags (See Computer Networks objectives)	Beebot, Scratch Jnr , Kodable, Tynker, Scratch 3 , Hopscotch, Swift Playgrounds ,

Computing Progression Document

Computer Networks (KS2 only)

<u>Year Group</u>	<u>NC Objectives</u>	<u>Skills/Knowledge</u>	<u>Apps and Links</u>
3	- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration - Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	- I understand that computers in a school are connected together in a network - I understand why computers are networked - I understand the difference between the Internet and the World Wide Web (WWW)	MrPICT.com Resources
4		- I understand that servers on the Internet are located across the planet - I understand how email is sent across the Internet - I understand how the Internet enables us to collaborate	MrPICT.com Resources
5		- I understand how we view web pages on the Internet - I use search technologies effectively - I understand that web spiders index the web for search engines - I appreciate how pages are ranked in a search engine	MrPICT.com Resources
6		- I understand what HTML is and recognize HTML tags - I know a range of HTML tags and can remix a web page - I can create a webpage using HTML	MrPICT.com Resources

Digital Literacy

All of the statements from this document have been taken from the Education for a Connected World Document.

Today's children and young people are growing up in a digital world. As they grow older, it is crucial that they learn to balance the benefits offered by technology with a critical awareness of their own and other's online behaviour, and develop effective strategies for staying safe and making a positive contribution online. This framework describes the skills and understanding that children and young people should have the opportunity to develop at different ages and stages. It highlights what a child should know in terms of current online technology, its influence on behaviour and development, and what skills they need to be able to navigate it safely.

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives EYFS and KS1

<u>Year Group</u>	<u>NC Objectives</u>	<u>Self Image and Identity</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	- 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. - I can explain how this could be either in real life or online.	Project Evolve, Ideas from MrPICT.com
1	- Co2/I.5 recognise common uses of information technology beyond school - Co2/I.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies	- I can recognise that there may be people online who could make me 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.	Project Evolve, Ideas from MrPICT.com
2		- I can explain how other people's identity online can be different to their identity in real life. - I can describe ways in which people might 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.	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives KS2

<u>Year Group</u>	<u>NC Objectives</u>	<u>Self Image and Identity</u>	<u>Apps and Links</u>
3	Co2/I.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration	• I can explain what is meant by the term 'identity'. • I can explain how I can represent myself in different ways online. • I can explain ways in which and why I might change my identity depending on what I am doing online (e.g. gaming; using an avatar; social media).	Project Evolve, Ideas from MrPICT.com
4		• I can explain how my online identity can be different to the identity I present in 'real life' • Knowing this, I can describe the right decisions about how I interact with others and how others perceive me.	Project Evolve, Ideas from MrPICT.com
5	Co2/I.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	• I can explain how identity online can be copied, modified or altered. • I can demonstrate responsible choices about my online identity, depending on context.	Project Evolve, Ideas from MrPICT.com
6	Co2/I.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	• I can describe ways in which media can shape ideas about gender. • I can 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.	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives EYFS and KS1

<u>Year Group</u>	<u>NC Objectives</u>	<u>Online Relationships</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	- 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.	Project Evolve, Ideas from MrPICT.com
1	- Co2/I.5 recognise common uses of information technology beyond school - Co2/I.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies	- I can use the internet with adult support to communicate with people I know. - I can explain why it is important to be considerate and kind to people online.	Project Evolve, Ideas from MrPICT.com
2		- I can use the internet to communicate with people I don't know well (e.g. email a penpal in another school/ country). - I can give examples of how I might use technology to communicate with others I don't know well.	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives KS2

<u>Year Group</u>	<u>NC Objectives</u>	<u>Online Relationships</u>	<u>Apps and Links</u>
3	Co2/I.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration Co2/I.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	• I can describe ways people who have similar likes and interests can get together online. • I can give examples of technology-specific forms of communication (e.g. emojis, acronyms, text speak). • I can explain some risks of communicating online with others I don't know well. • I can explain how my and other people's feelings can be hurt by what is said or written online. • I can explain why I should be careful who I trust online and what information I can trust them with. I can explain why I can take back my trust in someone or something if I feel nervous, uncomfortable or worried. • I can explain what it means to 'know someone' online and why this might be different from knowing someone in real life. I can explain what is meant by 'trusting someone online'. I can explain why this is different from 'liking someone online'.	Project Evolve, Ideas from MrPICT.com
4	Co2/I.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	• 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.	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives KS2

<u>Year Group</u>	<u>NC Objectives</u>	<u>Online Relationships</u>	<u>Apps and Links</u>
5	Co2/1.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration	• 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 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.	Project Evolve, Ideas from MrPICT.com
6	Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating	• 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. • I can demonstrate ways of reporting problems online for both myself and my friends.	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives EYFS and KS1

<u>Year Group</u>	<u>NC Objectives</u>	<u>Online Reputation</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	I can identify ways that I can put information on the internet.	Project Evolve, Ideas from MrPICT.com
1	- Co2/I.5 recognise common uses of information technology beyond school - Co2/I.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies	- 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	Project Evolve, Ideas from MrPICT.com
2		- I can explain how information put online about me can last for a long time. - I know who to talk to if I think someone has made a mistake about putting something online.	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives KS2

<u>Year Group</u>	<u>NC Objectives</u>	<u>Online Reputation</u>	<u>Apps and Links</u>
3	Co2/I.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration	• I can search for information about myself online. • I can recognise I need to be careful before I share anything about myself or others online. • I know who I should ask if I am not sure if I should put something online.	Project Evolve, Ideas from MrPICT.com
4	Co2/I.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	• 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.	Project Evolve, Ideas from MrPICT.com
5	Co2/I.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	• 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.	Project Evolve, Ideas from MrPICT.com
6		• I can explain how I am developing an online reputation which will allow other people to form an opinion of me. • I can describe some simple ways that help build a positive online reputation	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives EYFS and KS1

<u>Year Group</u>	<u>NC Objectives</u>	<u>Online Bullying</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	- I can describe ways that some people can be unkind online. - I can offer examples of how this can make others feel.	Project Evolve, Ideas from MrPICT.com
1	- Co2/I.5 recognise common uses of information technology beyond school - Co2/I.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies	I can describe how to behave online in ways that do not upset others and can give examples.	Project Evolve, Ideas from MrPICT.com
2		- 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.	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives KS2

<u>Year Group</u>	<u>NC Objectives</u>	<u>Online Bullying</u>	<u>Apps and Links</u>
3	Co2/I.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration	- I can explain what bullying is and can describe how people may bully others. - I can describe rules about how to behave online and how I follow them.	Project Evolve, Ideas from MrPICT.com
4		- I can identify some online technologies where bullying might take place. - I can 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).	Project Evolve, Ideas from MrPICT.com
5	Co2/I.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	- I can recognise when someone is upset, hurt or angry online. - I 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. - I can explain 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).	Project Evolve, Ideas from MrPICT.com
6	Co2/I.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	- 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.	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives EYFS and KS1

<u>Year Group</u>	<u>NC Objectives</u>	<u>Managing Online Information</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I can talk about how I can use the internet to find things out. • I can identify devices I could use to access information on the internet. • I can give simple examples of how to find information (e.g. search engine, voice activated searching).	Project Evolve, Ideas from MrPICT.com
1	• Co2/I.5 recognise common uses of information technology beyond school • Co2/I.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies	• I can use the internet to find things out. • I can use simple keywords in 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.	Project Evolve, Ideas from MrPICT.com
2		• I can use 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 (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 true.	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives KS2

<u>Year Group</u>	<u>NC Objectives</u>	<u>Managing Online Information</u>	<u>Apps and Links</u>
3	Co2/I.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration	• I can use key phrases in search engines. • 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'.	Project Evolve, Ideas from MrPICT.com
4	Co2/I.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Co2/I.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	• 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. • can explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true.	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives KS2

<u>Year Group</u>	<u>NC Objectives</u>	<u>Managing Online Information</u>	<u>Apps and Links</u>
5	Co2/1.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	• 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).	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives KS2

<u>Year Group</u>	<u>NC Objectives</u>	<u>Managing Online Information</u>	<u>Apps and Links</u>
6	Co2/I.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration Co2/I.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Co2/I.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	• 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.	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives EYFS and KS1

<u>Year Group</u>	<u>NC Objectives</u>	<u>Health ,Well-being and Lifestyle</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools.They select and use technology for particular purposes.	• 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.	Project Evolve, Ideas from MrPICT.com
1	• Co2/I.5 recognise common uses of information technology beyond school • Co2/I.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies	• I can explain rules to keep us safe when we are using technology both in and beyond the home. • I can give examples of some of these rules.	Project Evolve, Ideas from MrPICT.com
2		• I can explain simple guidance for using technology in different environments and settings. • I can say how those rules/guides can help me	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives KS2

<u>Year Group</u>	<u>NC Objectives</u>	<u>Health ,Well-being and Lifestyle</u>	<u>Apps and Links</u>
3	Co2/1.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration	I can explain why spending too much time using technology can sometimes have a negative impact on me; I can give some examples of activities where it is easy to spend a lot of time engaged (e.g. games, films, videos).	Project Evolve, Ideas from MrPICT.com
4		- 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.	Project Evolve, Ideas from MrPICT.com
5	Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	- I can describe ways technology can affect healthy sleep and can describe some of the issues. - I can describe some strategies, tips or advice to promote healthy sleep with regards to technology	Project Evolve, Ideas from MrPICT.com
6	Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	- 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 selfregulating my use of technology; I can demonstrate the strategies I use to do this (e.g. monitoring my time online, avoiding accidents).	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives EYFS and KS1

<u>Year Group</u>	<u>NC Objectives</u>	<u>Privacy and Security</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	- I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location). - I can describe the people I can trust and can share this with; I can explain why I can trust them.	Project Evolve, Ideas from MrPICT.com
1	- Co2/I.5 recognise common uses of information technology beyond school - Co2/I.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies	- 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). - I can explain why I should always ask a trusted adult before I share any information about myself online. - I can explain how passwords can be used to protect information and devices.	Project Evolve, Ideas from MrPICT.com
2		- I can describe why other people's work belongs to them. - I can recognise that content on the internet may belong to other people.	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives KS2

<u>Year Group</u>	<u>NC Objectives</u>	<u>Privacy and Security</u>	<u>Apps and Links</u>
3	Co2/I.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration Co2/I.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	• I can give reasons why I should only share information with people I choose to and can trust. I can explain that if I am not sure or I feel pressured, I should ask a trusted adult. • I understand and can give reasons why passwords are important. • I can describe simple strategies for creating and keeping passwords private. • I can describe how connected devices can collect and share my information with others.	Project Evolve, Ideas from MrPICT.com
4	Co2/I.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	• 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 • I can suggest reasons why they might do this • I can explain how internet use can be monitored.	Project Evolve, Ideas from MrPICT.com

Cross Curricular Computing Progression Document

Digital Literacy/ESafety - Education For a Connected World Objectives KS2

<u>Year Group</u>	<u>NC Objectives</u>	<u>Privacy and Security</u>	<u>Apps and Links</u>
5	Co2/I.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration	• 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.	<u>Project Evolve, Ideas from MrPICT.com</u>
6	Co2/I.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Co2/I.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	• I use different passwords for a range of online services. • I can describe effective strategies for managing those passwords (e.g. password managers, acronyms, stories). • I 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)	<u>Project Evolve, Ideas from MrPICT.com</u>

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Digital Literacy/ESafety - Education For a Connected World Objectives EYFS and KS1

<u>Year Group</u>	<u>NC Objectives</u>	<u>Copyright and Ownership</u>	<u>Apps and Links</u>
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I know that work I create belongs to me. • I can name my work so that others know it belongs to me.	Project Evolve, Ideas from MrPICT.com
1	• Co2/I.5 recognise common uses of information technology beyond school • Co2/I.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies	• I can explain why work I create using technology belongs to me. • I can say why it belongs to me (e.g. 'it is my idea' or 'I designed it'). • I can save my work so that others know it belongs to me (e.g. filename, name on content).	Project Evolve, Ideas from MrPICT.com
2		• I can describe why other people's work belongs to them. • I can recognise that content on the internet may belong to other people.	Project Evolve, Ideas from MrPICT.com

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Digital Literacy/ESafety - Education For a Connected World Objectives KS2

<u>Year Group</u>	<u>NC Objectives</u>	<u>Copyright and Ownership</u>	<u>Apps and Links</u>
3	Co2/1.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration	- I can explain why copying someone else's work from the internet without permission can cause problems. - I can give examples of what those problems might be.	Project Evolve, Ideas from MrPICT.com
4		- 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.	Project Evolve, Ideas from MrPICT.com
5	Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	- 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.	Project Evolve, Ideas from MrPICT.com
6	Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	- 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	Project Evolve, Ideas from MrPICT.com