Ellingham and Woodton Primary Federation
Skills Progression Grid for Computing

Year Group	E- Safety	Basic Skills	Digital Communication	Programming, Control and simulation	Data
EYFS	• Begin to recognise what might happen if you click links on devices.	• Recognise that a range of technology is used in places such as homes and schools. • Start to develop mouse control. • Learn to use 'swipe' technology. • Understand how icons represent commands on digital devices. Recognise the universal 'power', 'stop' and 'play' symbols. • Know how to operate simple equipment. • Begin to type own name on a keyboard.	• Role play with digital devices. • Use an iPad or camera to take an image.	• Control BeeBots using simple directional commands.	• Begin to collect data from peers.

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Year Group	E- Safety	Basic Skills	Digital Communication	Programming, Control and simulation	Data
Year 1	• Talk about some of the school e-safety rules. • Learn ways for staying safe when using the internet. • Name any personal information that should be kept private. • Know what to do if they see anything inappropriate on the computer. • Know who to report to and talk to in the event of inappropriate digital material. • Identify any risks in using the internet. • Learn how people can use the internet to bully others and where they can go for help. • Learn that they may leave a digital footprint when using the internet.	• Discuss and share how and when they use ICT in everyday life. • Change text size, font colour and font style. Add an image to a document. • Save work into a named folder. • Open work, change it and save it with another name. Recognise the universal playback symbols. • Show an awareness of the various ICT equipment and tools.	• Use a digital device to take a photograph and video. Add a caption to a photograph or image. • Edit an image in a simple way. • Create a label. • Use sounds in presentations. • Create simple sounds using a computer. • Create a picture in a paint package. • Use a digital device to record and playback a sound.	• Explore an online simulation or game. Make simple changes to an online simulation or game. Explain what an algorithm is and how they are used in programs. • Write simple programs to move characters around a screen. • Design and test algorithms using directional language to make a BeeBot move to and from specific points and around obstacles. • Give directional instructions that can be understood and followed. • Understand the need for accuracy when giving instructions. • Share and discuss their knowledge of directional instructions with their peers. • Talk about ways 'control technology' is used in the real world.	• Make a pictogram or a simple graph. • Use a data logger to capture measurements (sound, temperature or light).

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Year Group	E- Safety	Basic Skills	Digital Communication	Programming, Control and simulation	Data
Year 2	• Learn why passwords are important and the reasons for keeping them private. • Learn that computers can be used to communicate with people close and far away. • Learn that they must use technology safely and respectfully, building on previous skills and knowledge.	• Change text size, font colour and font style. Add an image to a document. • Save work into a named folder. • Open work, change it and save it with another name. Recognise the universal playback symbols. • Handle and use CD/DVDs correctly. Show an awareness of the various ICT equipment and tools.	• Use a digital device to take a photograph and video. Add a caption to a photograph or image. • Edit an image in a simple way. • Create a newspaper headline or a poster heading. • Create a simple presentation. • Use sounds in presentations. • Create simple sounds using a computer. • Create a picture in a paint package. • Use a digital device to record and playback a sound. • Recognise common uses of information technology beyond school. • Recognise that some forms of communication are better than others. • Create, store and retrieve digital content.	• Explore an online simulation or game. Make simple changes to an online simulation or game. Explain what an algorithm is and how they are used in programs. • Understand what algorithms are. • Write simple programs to move characters around a screen. • Design and test algorithms using directional language to make a BeeBot move to and from specific points and around obstacles. • Give directional instructions that can be understood and followed. • Understand the need for accuracy when giving instructions. • Share and discuss their knowledge of directional instructions with their peers. • Predict the behaviour of simple programs and explain their reasoning. • Talk about ways 'control technology' is used in the real world.	• Make a pictogram or a simple graph. • Use a data logger to capture measurements (sound, temperature or light).

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Year Group	E- Safety	Basic Skills	Digital Communication	Programming, Control and simulation	Data
Year 3	• Learn how they can protect themselves online and discuss the information they share with others. • Learn where they can go for help and support when they have concerns. • Learn that they must use technology safely and respectfully building on previous skills and knowledge.	• Insert and edit text or other element when using presentation software. • Ensure it is fit for purpose. • Change the layout or format of a page. • Add a hyperlink in a presentation. • Use Page Layout to select different sizes and orientations. • Use spell checker, thesaurus and find and replace. • Add text, images and sounds to a presentation from a variety of sources. • Edit a photograph (crop, resize, add border, add effects). Understand the importance of passwords and how they allow access to personalised resources.	• Use transitions animations in presentations. • Use a variety of software to create presentations with hyperlinks. • Understand the principles of animation. • Design and create a 2D animation. • Manipulate digital images in a variety of contexts. • Use online pictograms, databases and spreadsheets to present information graphically. • Search technologies effectively to locate appropriate resources needed for their work.	• Predict and explore the effects of changing something in a simulation. • Create a simple flow diagram to control a screen mimic (e.g. traffic lights). • Write a more complicated flow diagram using inputs and outputs. • Move or change a character in a game. • Create a shape or pattern using algorithms. • Make a pattern in a program by using procedures. • Debug simple errors in algorithms. • Write and debug simple programs that accomplish specific goals. • Use repeat procedures in their programs. • Understand the need for accuracy when giving or following instructions.	• Create different types of graphs (line graph, bar chart, pie charts). Collect data to use in a graph and create the graph. • Use data to answer questions.

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Year Group	E- Safety	Basic Skills	Digital Communication	Programming, Control and simulation	Data
Year 4	• Talk about what to do if you have any concerns about anyone you are in contact with online. • Understand and recognise instances of cyber bullying. • Understand personal privacy online. • Learn the importance of using and keeping safe their passwords. • Develop and use their own strong password. Understand the term plagiarism. • Know what spam is and how to deal with it. • Demonstrate the importance of keeping personal information private.	• Insert and edit text or other element when using presentation software. • Ensure it is fit for purpose. • Change the layout or format of a page. • Add a hyperlink in a presentation. • Use Page Layout to select different sizes and orientations. • Use spell checker, thesaurus and find and replace. • Add text, images and sounds to a presentation from a variety of sources. • Edit a photograph (crop, resize, add border, add effects). Understand the importance of passwords and how they allow access to personalised resources.	• Recognise and use good features of digital presentation. • Use transitions animations in presentations. • Use a variety of software to create presentations with hyperlinks. • Understand the principles of animation. • Design and create a 2D animation. • Make simple edits to a film. • Manipulate digital images in a variety of contexts. • Collect and analyse and present data accurately. • Use online pictograms, databases and spreadsheets to present information graphically. • Search technologies effectively to locate appropriate resources needed for their work.	• Predict and explore the effects of changing something in a simulation. • Create a simple flow diagram to control a screen mimic (e.g. traffic lights). • Write a more complicated flow diagram using inputs and outputs. • Move or change a character in a game. • Create a shape or pattern using algorithms. • Make a pattern in a program by using procedures. • Explain how algorithms work and be able to detect errors. • Debug simple errors in algorithms. • Write and debug simple programs that accomplish specific goals. • Use repeat procedures in their programs. • Understand the need for accuracy when giving or following instructions.	• Create different types of graphs (line graph, bar chart, pie charts). Collect data to use in a graph and create the graph. • Use data to answer questions.

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Year Group	E- Safety	Basic Skills	Digital Communication	Programming, Control and simulation	Data
Year 5	• Learn that they must keep their personal information private when online. • Learn how to identify secure sites that they can use safely. • Explain what an avatar or online alias is. • Understand about the negative influence others can have on them online. • Explain what a digital footprint is. • Compare cyberbullying and in person bullying and learn strategies for coping with it. • Discuss and identify where to go for help and support when they need it.	• Edit sound files. • Add different files to presentation software. Plan and create more complicated presentations that use an interactive element. Select hardware and software for specific purposes or for a specific audience.	• Create an animation to tell a story. • Explore and create 3D animation. • Recognise that technology can be used to alter and manipulate images. • Use a variety of software to create professional presentations with hyperlinks and embedded sound and video. • Create music using music editing software including samples. • Record and publish the music. • Create presentations for specific audiences through own choice of media. • Recognise the benefits of using a spreadsheet to manipulate data.	• Use programming software to design a game, app or equivalent. • Begin to learn an alternative form of coding. • Check sections of coding for errors. Write a program to control a piece of remote hardware (E.g. Lego Mindstorms) to achieve a given aim. • Explain what algorithms are and identify them in a programme. • Use sub routines in a program to make it easier to organise. • Begin to solve problems by decomposing them into smaller parts. • Apply their knowledge of the importance of accuracy when giving instructions. • Understand how input/output devices work.	• Create different types of graphs (line graph, bar chart, pie charts). Collect data to use in a graph and create the graph. • Use data to answer questions. • Use a spreadsheet to record and enter data and begin to use a formula to calculate.

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Year Group	E- Safety	Basic Skills	Digital Communication	Programming, Control and simulation	Data
Year 6	• Become familiar with digital media and associated vocabulary. • Understand how others can access their private information online. • Discuss and identify where to go for help and support when they need it. • Understand the terms copyright and plagiarism.	• Edit sound files. • Add different files to presentation software. Plan and create more complicated presentations that use an interactive element. Select hardware and software for specific purposes or for a specific audience.	• Create an animation to tell a story. • Use a variety of software to create professional presentations with hyperlinks and embedded sound and video. • Create music using music editing software including samples. • Record and publish the music. • Create presentations for specific audiences through own choice of media. • Collect, analyse and present data accurately within a spreadsheet. • Understand computer networks including the internet and the services they provide (world wide web). • Recognise how these services offer opportunities for communication and collaboration. • Use search engines effectively in research.	• Write and debug programs that accomplish specific goals. • Use programming software to design a game, app or equivalent. Begin to solve problems by decomposing them into smaller parts. • Use logical reasoning to explain how simple algorithms work and to detect and correct errors. • Begin to learn an alternative form of coding. • Check sections of coding for errors. Write a program to control a piece of remote hardware (E.g. Lego Mindstorms) to achieve a given aim. • Explain what algorithms are and identify them in a programme. • Use sub routines in a program to make it easier to organise. • Apply their knowledge of the importance of accuracy when giving instructions.	• Use a spreadsheet to record and enter data and use a formula to calculate. • Scrutinise information in a database/spreadsheet by using filters. • Explain why data is or isn't useful for a specific purpose. • Explain why I chose to present my data in my chosen way.

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