Bramingham Primary Schools
Computing Skills Progression Grids

EYFS			
	Personal, Social and Emotional Development	**Physical Development**	**Understanding the World**
Three- and Four-Year Olds	I can increasingly follow rules, understanding why they are important.	I can match my developing physical skills to tasks and activities in the setting.	I can explore how things work.
Reception	I can show resilience and perseverance in the face of a challenge.	I can develop my small motor skills so that I can use a range of tools competently, safely and confidently. I know and talk about the different factors that support my overall health and well-being, i.e. sensible amounts of screen-time.	
ELG	I am confident to try new activities and I can show independence, resilience and perseverance in the face of challenge. I can explain the reasons for rules, know right from wrong and try to behave accordingly.		

Computing Skills and Units					
Exploring Hardware	**Using a Computer**	**All about Instructions**	**Introduction to Data**	**Supporting a Child-Led Project**	**Programming: Bee Bots**
• I am learning how to explore and tinker with hardware to develop familiarity. • I am learning the relevant vocabulary for different hardware. • I recognise that a range of technology is used in places such as homes and schools.	• I know what a keyboard is and how to locate relevant keys. • I can type letters with increasing confidence. • I am learning how to log in and out of a computer or program. • I understand why we need to log in and out.	• I can follow instructions as part of practical activities and games. • I am learning to give simple instructions. • I can learn to debug	• I understand how to sort and categorise objects. • I can explain how items have been sorted and categorised. • I understand how to read a simple pictogram.	• I can dictate short, clear sentences into a digital device. • I can record my voice over a picture. • I know the difference between a photo and a video. • I can record a short film using the iPad. • I can play and watch	• I understand the meaning of directional arrows. • I follow a simple sequence of instructions. • I can experiment with programming a Bee Bot. • I am learning how to explore and tinker with hardware to

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• I can play on a touch-screen game and use computers/keyboards in role-play. • I can take a photograph on the iPad. • I can move and resize images.	• I am learning what how to use a cursor. • I am developing my basic mouse skills such as moving and clicking. • I can use a simple online paint tool to create digital art. • I can use a painting app/program and use the paint and brush tools.	instructions, with the help of an adult, when things go wrong. • I am learning that an algorithm is a set of instructions to carry out a task, in a specific order.		my film back.	develop familiarity. • I am learning the relevant vocabulary for different hardware. • I can learn to debug instructions, with the help of an adult, when things go wrong.

Year 1

	Information Technology	Computer Science	Digital Literacy
Purpose	Using computers for functional purposes, e.g. collecting and presenting information, or using search technology.	Understanding how computers and networks work and basic computer programming.	The safe and responsible use of technology, including recognising its advantages for collaboration or communication.
National Curriculum Aims	• *I use technology purposefully to create, organise, store, manipulate and retrieve digital content.*	• *I 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 and debug simple programs.* • *I can use logical reasoning to predict the behaviour of simple programs.*	• *I can recognise common uses of information technology beyond school.* • *I can use technology safely and respectfully, keeping personal information private.* • *I can identify where to go for help and support when I have concerns about content or contact on the internet or other online technologies.*

Schools Computing Skills and Units

Computing Systems and Networks – Technology Around Us	**Creating Media – Digital Painting**	**Creating Media – Digital Writing**	**Data and Information – Grouping Data**	**Programming A – Moving a Robot**	**Programming B – Introduction to Animation**

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Computing Skills Progression Grids

Children will be able: • To identify technology • To identify a computer and its main parts • To use a mouse in different ways • To use a keyboard to type • To use the keyboard to edit text • To create rules for using technology responsibly	*Children will be able:* • To describe what different freehand tools do • To use the shape tool and the line tools • To make careful choices when painting a digital picture • To explain why I chose the tools I used • To use a computer on my own to paint a picture • To compare painting a picture on a computer and on paper	*Children will be able:* ☐ To use a computer to write ☐ To add and remove text on a computer ☐ To identify that the look of text can be changed on a computer ☐ To make careful choices when changing text ☐ To explain why I used the tools that I chose ☐ To compare writing on a computer with writing on paper	*Children will be able:* • To label objects • To identify that objects can be counted • To describe objects in different ways • To count objects with the same properties • To compare groups of objects • To answer questions about groups of objects	*Children will be able:* • To explain what a given command will do • To act out a given word • To combine forwards and backwards commands to make a sequence • To combine four direction commands to make sequences • To plan a simple program • To find more than one solution to a problem	*Children will be able:* • To choose a command for a given purpose • To show that a series of commands can be joined together • To identify the effect of changing a value • To explain that each sprite has its own instructions • To design the parts of a project • To use my algorithm to create a program
Education for a Connected World					
Computing Systems and Networks – Technology Around Us	**Creating Media – Digital Painting**	**Creating Media – Digital Writing**	**Data and Information – Grouping Data**	**Programming A – Moving a Robot**	**Programming B – Introduction to Animation**

Bramingham Primary Schools
Computing Skills Progression Grids

• I can give examples of when I should ask permission to do something online and explain why this is important. • 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 • I can use the internet with adult support to communicate with people I know (e.g. video call apps). • I know that the work I create belongs to me • I can name my work so that others know it belongs to me • I can save my work so that others know it belongs to me. • I understand that work created by others does not belong to me even if I save a copy.	• I can recognise that there may be people online who could make someone feel sad, embarrassed or upset. • If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust and how they can help.	• I can give reasons why I should only share information with people I choose to and can trust. • I can recognise that information can stay online and could be copied. • I can describe what information I should not put online without asking a trusted adult first. • I can explain why I should always ask a trusted adult before I share my information about myself online belonging to myself or others.	• I know that work I create belongs to me • I can name my work so that others know it belongs to me • I can save my work so that others know it belongs to me. • I understand that work created by others does not belong to me even if I save a copy.	• I can explain why it is important to be considerate and kind to people online and to respect their choices. • I can explain why things one person finds funny or sad online may not always be seen in the same way as others. • I can describe how to behave online in ways that do not upset others and can give examples.	• I can give simple examples of how to find information using digital technologies, e.g. search enfines, voice activated searching. • I know/understand that we can encounter a range of things online including things we like and don't like as well as things which are real or make believe/ a joke. • I know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened. • I can explain how passwords can be used to protect information and devices.

Bramingham Primary Schools
Computing Skills Progression Grids

Year 2			
	Information Technology	**Computer Science**	**Digital Literacy**
Purpose	Using computers for functional purposes, e.g. collecting and presenting information, or using search technology.	Understanding how computers and networks work and basic computer programming.	The safe and responsible use of technology, including recognising its advantages for collaboration or communication.
National Curriculum Aims	• *I use technology purposefully to create, organise, store, manipulate and retrieve digital content.*	• *I 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 and debug simple programs.* • *I can use logical reasoning to predict the behaviour of simple programs.*	• *I can recognise common uses of information technology beyond school.* • *I can use technology safely and respectfully, keeping personal information private.* • *I can identify where to go for help and support when I have concerns about content or contact on the internet or other online technologies.*

Schools Computing Skills and Units					
Computing Systems and Networks – IT Around Us	**Creating Media – Digital Photography**	**Creating Media – Making Music**	**Data and Information – Pictograms**	**Programming A – Robot Algorithms**	**Programming B – An Introduction to Quizzes**

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Computing Skills Progression Grids

Children will be able: • To recognise the uses and features of information technology • To identify information technology in the home • To identify information technology beyond school • To explain how information technology benefits us • To show how to use information technology safely • To recognise that choices are made when using information technology	*Children will be able:* • To use a digital device to take a photograph • To make choices when taking a photograph • To describe what makes a good photograph • To decide how photographs can be improved • To use tools to change an image • To recognise that photos can be changed	*Children will be able:* • To say how music can make us feel • To identify that there are patterns in music • To describe how music can be used in different ways • To show how music is made from a series of notes • To create music for a purpose • To review and refine our computer work	*Children will be able:* • To recognise that we can count and compare objects using tally charts • To recognise that objects can be represented as pictures • To create a pictogram • To select objects by attribute and make comparisons • To recognise that people can be described by attributes • To explain that we can present information using a computer	*Children will be able:* • To describe a series of instructions as a sequence • To explain what happens when we change the order of instructions • To use logical reasoning to predict the outcome of a program (series of commands) • To explain that programming projects can have code and artwork • To design an algorithm • To create and debug a program that I have written	*Children will be able:* • To explain that a sequence of commands has a start • To explain that a sequence of commands has an outcome • To create a program using a given design • To change a given design • To create a program using my own design • To decide how my project can be improved

Bramingham Primary Schools
Computing Skills Progression Grids

Education for a Connected World					
Computing Systems and Networks – IT Around Us	**Creating Media – Digital Photography**	**Creating Media – Making Music**	**Data and Information – Pictograms**	**Programming A – Robot Algorithms**	**Programming B – An Introduction to Quizzes**
• I can explain how passwords can be used to protect information, accounts and devices. • I can explain and give examples of what is meant by 'private' and 'keeping things private'. • I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords).	• To identify that some images are not real (fake) • I can describe different ways to ask for, give or deny my permission online and can identify who can help me if I am not sure. • I can explain who can help me if I feel under pressure to agree to something I am unsure about or don't want to do. • I can identify who can help me if something happens online without my consent. • I can explain how it might make others feel if I do not ask permission or ignore their answers before sharing something about them online. • I know who to talk to if something has been	• I know that work I create belongs to me. • I can describe why other people's work belongs to them. • I can recognise that content on the internet may belong to other people.	• 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 identify rules that help keep us safe and healthy in and beyond the home when using technology • 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 • I can recognise more detailed examples of information that is	• I can explain how information put online about someone can last for a long time. • I can describe how anyone's online information could be seen by others. • I can explain why I should always ask a trusted adult before clicking 'yes', 'agree' or 'accept' online.	• I can use simple keywords in a search engine. • I can demonstrate how to navigate a simple webpage to get 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. I know it is not a real person (e.g. Alexa, Google Now, Siri) • I can explain the difference between things that are imaginary or made up and things that are true or real. • I can explain why some information I find online may not be real or true.

	put online without consent or if it is incorrect.		personal to me (e.g. where I live, my family's names, where I go to school) • I can explain who I should ask before sharing things about myself online.		

Bramingham Primary Schools
Computing Skills Progression Grids

Year 3			
	Information Technology	**Computer Science**	**Digital Literacy**
Purpose	Using computers for functional purposes, e.g. collecting and presenting information, or using search technology.	Understanding how computers and networks work and basic computer programming.	The safe and responsible use of technology, including recognising its advantages for collaboration or communication.
National Curriculum Aims	• *I can 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 search technologies effectively.*	• *I can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems.* • *I can solve problems by decomposing them into smaller parts.* • *I can use sequence, selection and repetition in programs.* • *I can work with variables and various forms of input and output.* • *I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.* • *I understand computer networks including the internet.* • *I understand how the internet can provide multiple services such as the world wide web.* • *I can appreciate how search results are selected and ranked.*	• *I can use technology safely, respectfully and responsibly.* • *I can recognise acceptable and unacceptable behaviour.* • *I can identify a range of ways to report concerns about content and contact.* • *I can be discerning in evaluating digital content.* • *I understand the opportunities networks offer for communication and collaboration.* □

Schools Computing Skills and Units					
Computing Systems and Networks – Connecting Computers	**Creating Media – Animation**	**Creating Media – Desktop Publishing**	**Data and Information – Branching databases**	**Programming A – Sequencing sounds**	**Programming B – Events and actions in programs**

Bramingham Primary Schools
Computing Skills Progression Grids

Children will be able: • To explain how digital devices function • To identify input and output devices • To recognise how digital devices can change the way we work • To explain how a computer network can be used to share information • To explore how digital devices can be connected • To recognise the physical components of a network	*Children will be able:* • To explain that animation is a sequence of drawings or photographs • To relate animated movement with a sequence of images • To plan an animation • To identify the need to work consistently and carefully • To review and improve an animation • To evaluate the impact of adding other media to an animation	*Children will be able:* • To recognise how text and images convey information • To recognise that text and layout can be edited • To choose appropriate page settings • To add content to a desktop publishing publication • To consider how different layouts can suit different purposes • To consider the benefits of desktop publishing	*Children will be able:* • To create questions with yes/no answers • To identify the object attributes needed to collect relevant data • To create a branching database • To explain why it is helpful for a database to be well structured • To identify objects using a branching database • To compare the information shown in a pictogram with a branching database	*Children will be able:* • To explore a programming environment • To identify that commands have an outcome • To explain that a program has a start • To recognise that a sequence of commands can have an order • To change the appearance of my project • To create a project from a task description	*Children will be able:* • To explain how a sprite moves in an existing project • To create a program to move a sprite in four directions • To adapt a program to a new context • To develop my program by adding features • To identify and fix bugs in a program • To design and create a maze-based challenge •

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Computing Skills Progression Grids

Education for a Connected World					
Computing Systems and Networks – Connecting Computers	**Creating Media – Animation**	**Creating Media – Desktop Publishing**	**Data and Information – Branching databases**	**Programming A – Sequencing sounds**	**Programming B – Events and actions in programs**
• I can describe how connected devices can collect and share my information with others. • I can explain how to search for information about others online.	• I can use key phrases in search engines. • I can use search technologies effectively. • 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. • 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 use key phrases in search engines • I can use search technologies effectively • 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 demonstrate the use of search tools to find and access online content which can be reused by others • I can demonstrate how to use key phrases in search engines to gather accurate information online.	• I can explain the difference between a 'belief', an 'opinion' and a 'fact' and can give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories, etc. • I can explain that not all opinions shared may be accepted as true or fair by others (e.g. monsters under the bed). • I can describe and demonstrate how we can get help from a trusted adult if we see content that makes us feel sad,	• 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. • I can explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g. age	• I can give reasons why someone should only share information with people they choose to and can trust. I can explain that if they are not sure or feel pressured then they should tell a trusted adult.

	• I can give some simple examples. • I can give examples of content that is permitted to be reused. • I can demonstrate the use of search tools to find and access online content which can be reused by others.	• 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.	uncomfortable, worried or frightened. ☐	restricted gaming or web sites).	

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Computing Skills Progression Grids

Year 4			
	Information Technology	**Computer Science**	**Digital Literacy**
Purpose	Using computers for functional purposes, e.g. collecting and presenting information, or using search technology.	Understanding how computers and networks work and basic computer programming.	The safe and responsible use of technology, including recognising its advantages for collaboration or communication.
National Curriculum Aims	• *I can 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 search technologies effectively.*	• *I can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems.* • *I can solve problems by decomposing them into smaller parts.* • *I can use sequence, selection and repetition in programs.* • *I can work with variables and various forms of input and output.* • *I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.* • *I understand computer networks including the internet.* • *I understand how the internet can provide multiple services such as the world wide web.* • *I can appreciate how search results are selected and ranked.*	• *I can use technology safely, respectfully and responsibly.* • *I can recognise acceptable and unacceptable behaviour.* • *I can identify a range of ways to report concerns about content and contact.* • *I can be discerning in evaluating digital content.* • *I understand the opportunities networks offer for communication and collaboration.* □

Schools Computing Skills and Units					
Computing Systems and Networks – The Internet	**Creating Media – Audio editing**	**Creating Media – Photo editing**	**Data and Information – Data logging**	**Programming A – Repetition in shapes**	**Programming B – Repetition in games**

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Children will be able: • To describe how networks physically connect to other networks • To recognise how networked devices make To outline how websites can be shared via the World Wide Web • To describe how content can be added and accessed on the World Wide Web • To recognise how the content of the WWW is created by people • To evaluate the consequences of unreliable contentup the internet	*Children will be able:* • To identify that sound can be digitally recorded. • To use a digital device to record sound. • To explain that a digital recording is stored as a file • To explain that audio can be changed through editing • To show that different types of audio can be combined and played together • To evaluate editing choices made	*Children will be able:* • To explain that digital images can be changed • To change the composition of an image • To describe how images can be changed for different • To make good choices when selecting different tools • To recognise that not all images are real • To evaluate how changes can improve an image uses	*Children will be able:* • To explain that data gathered over time can be used to answer questions • To use a digital device to collect data automatically • To explain that a data logger collects 'data points' • from sensors • To use data collected over a long duration to find information • To identify the data needed to answer questions To use collected data to answer questions over time	*Children will be able:* • To identify that accuracy in programming is important • To create a program in a text-based language • To explain what 'repeat' means • To modify a count-controlled loop to produce a given outcome • To decompose a task into small steps • To create a program that uses count-controlled loops to produce a given outcome	*Children will be able:* • To develop the use of count-controlled loops in a different programming environment • To explain that in programming there are infinite loops and count- controlled loops • To develop a design that includes two or more loops which run at the same time • To modify an infinite loop in a given program • To design a project that includes repetition To create a project that includes repetition

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Education for a Connected World					
Computing Systems and Networks – The Internet	**Creating Media – Audio editing**	**Creating Media – Photo editing**	**Data and Information – Data logging**	**Programming A – Repetition in shapes**	**Programming B – Repetition in games**
• I can explain how my online identity can be different to my offline identity. • I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this. • I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.	• I can explain why copying someone else's work from the internet without permission can cause problems • I can give examples of what those problems might be • When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it • I can give some simple examples of content which I must not use without permission	• I can describe ways in which people might make themselves look different online. • 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 examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours. • I can explain how content shared online may feel unimportant to one person but may be important to other people's thoughts feelings and beliefs. • I can explain how using technology can be a distraction from other things, in both a	• I can explain what is meant by fake news e.g. why some people will create stories or alter photographs and put them online to pretend something is true when it isn't. • I can analyse information to make a judgement about probable accuracy and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others.	• I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in- app purchases, pop-ups) and can recognise some of these when they appear online. • I can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true. • I can explain that technology can be designed to act like or impersonate living

• I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms).	from the owner, e.g. videos, music, images.		positive and negative way. • I can identify times or situations when I might need to limit the amount of time I use technology, e.g. I can suggest strategies to help with limiting this time.	• I can describe how to search for information within a wide group of technologies and make a judgement about the probable accuracy (e.g. social media, image sites, video sites).	things (e.g. bots) and describe what the benefits and the risks might be.

Bramingham Primary Schools
Computing Skills Progression Grids

Year 5			
	Information Technology	**Computer Science**	**Digital Literacy**
Purpose	Using computers for functional purposes, e.g. collecting and presenting information, or using search technology.	Understanding how computers and networks work and basic computer programming.	The safe and responsible use of technology, including recognising its advantages for collaboration or communication.
National Curriculum Aims	• *I can 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 search technologies effectively.*	• *I can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems.* • *I can solve problems by decomposing them into smaller parts.* • *I can use sequence, selection and repetition in programs.* • *I can work with variables and various forms of input and output.* • *I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.* • *I understand computer networks including the internet.* • *I understand how the internet can provide multiple services such as the world wide web.* • *I can appreciate how search results are selected and ranked.*	• *I can use technology safely, respectfully and responsibly.* • *I can recognise acceptable and unacceptable behaviour.* • *I can identify a range of ways to report concerns about content and contact.* • *I can be discerning in evaluating digital content.* • *I understand the opportunities networks offer for communication and collaboration.*

Schools Computing Skills and Units					
Computing Systems and Networks – Sharing information	**Creating Media – Vector drawing**	**Creating Media – Video editing**	**Data and Information – Flat-file databases**	**Programming A – Selection in physical computing**	**Programming B – Selection in quizzes**

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Computing Skills Progression Grids

Children will be able: • To explain that computers can be connected together to form systems To recognise the role of computer systems in our lives • To recognise how information is transferred over the internet To explain how sharing information online lets people in different places	*Children will be able:* • To identify that drawing tools can be used to produce different outcomes • To create a vector drawing by combining shapes To use tools to achieve a desired effect To recognise that vector drawings consist of layers To group objects to make them easier to work with To evaluate my vector drawing	*Children will be able:* • To recognise video as moving pictures, which can include audio • To identify digital devices that can record video • To capture video using a digital device • To recognise the features of an effective video • To identify that video can be improved through reshooting and editing To consider the impact of the choices made when making and sharing a video	*Children will be able:* • To use a form to record information • To compare paper and computer-based databases • To outline how grouping and then sorting data allows us to answer questions • To explain that tools can be used to select specific data • To explain that computer programs can be used to compare data visually To apply my knowledge	*Children will be able:* • To control a simple circuit connected to a computer To write a program that includes count-controlled loops • To explain that a loop can stop when a condition is met, eg number of times To conclude that a loop can be used to repeatedly check whether a condition has been met • To design a physical project that includes selection • To create a controllable system that includes selection	*Children will be able:* • To explain how selection is used in computer programs • To relate that a conditional statement connects a condition to an outcome • To explain how selection directs the flow of a program • To design a program which uses selection • To create a program which uses selection To evaluate my program

Bramingham Primary Schools
Computing Skills Progression Grids

Education for a Connected World					
Computing Systems and Networks – Sharing information	**Creating Media – Vector drawing**	**Creating Media – Video editing**	**Data and Information – Flat-file databases**	**Programming A – Selection in physical computing**	**Programming B – Selection in quizzes**
• 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 • I can give examples of technology specific forms of communication (e.g. emojis, memes and GIFs). • I explain what a strong password is and demonstrate how to create one. • I can explain that there are some people I communicate with online	• I can explain why copying someone else's work from the internet without permission can cause problems. • I can describe the helpline services which can help people experiencing bullying and how to access them (e.g. Childline or The Mix). • I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences.	• I can explain how I can represent myself in different ways online • Knowing this, I can describe the right decisions about how I interact with others and how others perceive me • I can recognise some ways in which the internet can be used to communicate • I can give examples of how to be respectful to others online • I can search for information about an	• I can demonstrate how to make responsible choices about having online identity, depending on context. • I can evaluate digital content and can explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results. • I can explain key concepts including: information, reviews, fact, opinion, belief, validity, reliability and evidence. • I can identify ways the internet can draw us to	• I can describe some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make positive contributions (e.g. gaming communities or social media groups). • I can describe ways technology can affect health and well-being both positively (e.g. mindfulness apps) and negatively. • I can describe some strategies, tips or advice to	• I can explain how and why some apps and games may request to take payment for additional content (e.g. in-app purchases, lootboxes) and explain the importance of seeking permission from a trusted adult before purchasing. • I can explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others.

who may want to do me or my friends harm. I can recognise that this is not my/our fault. • I can explain how someone can get help if they are having problems and identify when to tell a trusted adult. • I can demonstrate how to support others (including those who are having difficulties) online. • I can explain how to block abusive users. ☐	• I can describe how what one person perceives as playful joking and teasing (including 'banter') might be experienced by others as bullying. • I can explain how anyone can get help if they are being bullied online and identify when to tell a trusted adult. • I can identify a range of ways to report concerns and access support both in school and at home about online bullying.	individual online and create a summary report of the information I find • I can describe ways that information about anyone online can be used by others to make judgements about an individual and why these may be incorrect. • I can explain ways that some of the information about me online could have been created, copied, or shared by others • I can evaluate digital content (and can explain how I make choices from search results)	information for different agendas, e.g. website notifications, pop-ups, targeted ads. • I can explain the benefits and limitations of using different types of search technologies e.g. voice activation search engine. I can explain how some technology can limit the information I am presented with e.g. voice activated searching giving one result. • I explain what is meant by 'being sceptical'; I can give examples of when and why it is important to be 'sceptical'.	promote health and wellbeing with regards to technology. • I recognise the benefits and risks of accessing information about health and wellbeing online and how we should balance this with talking to trusted adults and professionals.	• I can explain what app permissions are and can give some examples.

Bramingham Primary Schools
Computing Skills Progression Grids

Year 6			
	Information Technology	**Computer Science**	**Digital Literacy**
Purpose	Using computers for functional purposes, e.g. collecting and presenting information, or using search technology.	Understanding how computers and networks work and basic computer programming.	The safe and responsible use of technology, including recognising its advantages for collaboration or communication.
National Curriculum Aims	• *I can 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 search technologies effectively.*	• *I can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems.* • *I can solve problems by decomposing them into smaller parts.* • *I can use sequence, selection and repetition in programs.* • *I can work with variables and various forms of input and output.* • *I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.* • *I understand computer networks including the internet.* • *I understand how the internet can provide multiple services such as the world wide web.* • *I can appreciate how search results are selected and ranked.*	• *I can use technology safely, respectfully and responsibly.* • *I can recognise acceptable and unacceptable behaviour.* • *I can identify a range of ways to report concerns about content and contact.* • *I can be discerning in evaluating digital content.* • *I understand the opportunities networks offer for communication and collaboration.*

Schools Computing Skills and Units					
Computing Systems and Networks – Communication	**Creating Media – 3D Modelling**	**Creating Media – Web page creation**	**Data and Information – Spreadsheets**	**Programming A – Variables in games**	**Programming B – Sensing**

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Children will be able: • To identify how to use a search engine • To describe how search engines select results To explain how search results are ranked • To recognise why the order of results is important, and to whom • To recognise how we communicate using technology To evaluate different methods of online communication	*Children will be able:* • To use a computer to create and manipulate three-dimensional (3D) digital objects To compare working digitally with 2D and 3D graphics • To construct a digital 3D model of a physical object • To identify that physical objects can be broken down into a collection of 3D shapes • To design a digital model by combining 3D objects To develop and improve a digital 3D model	*Children will be able:* • To review an existing website and consider its structure • To plan the features of a web page To consider the ownership and use of images (copyright) • To recognise the need to preview pages • To outline the need for a navigation path To recognise the implications of linking to content owned by other people	*Children will be able:* • To identify questions which can be answered using data • To explain that objects can be described using data To explain that formulas can be used to produce calculated data • To apply formulas to data, including duplicating • To create a spreadsheet to plan an event To choose suitable ways to present data	*Children will be able:* • To define a 'variable' as something that is changeable • To explain why a variable is used in a program To choose how to improve a game by using variables • To design a project that builds on a given example • To use my design to create a project To evaluate my project	*Children will be able:* • To create a program to run on a controllable device • To explain that selection can control the flow of a program To update a variable with a user input • To use an conditional statement to compare a variable to a value • To design a project that uses inputs and outputs on a controllable device To develop a program to use inputs and outputs on a controllable device

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Education for a Connected World					
Computing Systems and Networks – Communication	**Creating Media – 3D Modelling**	**Creating Media – Web page creation**	**Data and Information – Spreadsheets**	**Programming A – Variables in games**	**Programming B – Sensing**
• I can describe and assess the benefits and the potential risks of sharing information online. • I can use various additional tools to refine my searches (e.g. search filters: size, type, usage rights etc.). • I can explain how to use search effectively and use examples from my own practice to illustrate this. • I can explain how search engine rankings are returned and can explain how they can be influenced (e.g. commerce, sponsored results). • I can demonstrate the use of search tools to find	• I can describe strategies for keeping my personal information private, depending on context • I can describe effective ways people can manage passwords (e.g. storing them securely or saving them in the browser). • I can explain what to do if a password is shared, lost or stolen. • I can describe how and why people should keep their software and apps up to date, e.g. auto updates. • I can describe simple ways to increase privacy on apps and services that provide privacy settings.	• I can use the internet with adult support to communicate with people I know. (EY-7) • I can navigate online content, websites, or social media feeds using more sophisticated tools to get to the information I want (e.g. menus, sitemaps, breadcrumb-trails, site search functions). (11-14) • 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.	• 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 explain how to use search technologies effectively. • I can evaluate digital content and can explain how I make choices from search results • I can explain how search engines work and how results are selected and ranked. • I can describe how some online information can be	• I can describe how things shared privately online can have unintended consequences for others, e.g. screen-grabs. • I can explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this. • I can describe how to capture bullying content as evidence (e.g. screen-grab, URL, profile) to share with others who can help me.	• I can explain the ways in which anyone can develop a positive online reputation. • I can explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity. • I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and give examples of how to get help, both on and offline. • I can explain the importance of asking until I get the help needed.

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. ☐	• I can describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing). • I know that online services have terms and conditions that govern their use.	• 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. • 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. • 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. • I can explain the principles of fair use and apply this to case studies. (11-14)	opinion and can offer examples. • I can explain how and why some people may present 'opinions' as 'facts'; why the popularity of an opinion or the personalities or those promoting it does not necessarily make it true, fair or perhaps even legal. • I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how someone might encounter these online (e.g. advertising and 'ad targeting' and targeting for fake news). • I understand the concept of persuasive design and how it can be used to influence peoples' choices.		• I can explain how sharing something online may have an impact either positively or negatively. • I can describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not.