Hughenden Primary School – Computing skills Progression Framework

Subject area: Computing		Coordinator: Jonathan Meatyard	Review date: 13.09.20	
Year group: EYFS				

National Curriculum skills to be taught in this year group:

ELG: I can recognise that a range of technology is used in places such as homes and schools.
They select and use technology for particular purposes. Learning Experiences:

Multimedia	Programming	Online	E-Safety	Data
M1: I know how to operate simple equipment e.g turns on an ipad & uses remote control. **M2:** I can use a simple program on a computer or tablet. **M3:** I can recognise that a range of technology is used in places such as homes and schools. **M4:** I can use ICT hardware, such as a mouse, to interact with age appropriate computer software.	**P1:** I show an interest in technological toys with buttons, or real objects such as cameras or mobile phones.	**01:** I know that information can be retrieved from computers.	**ES1:** I can tell when I'm on the internet and when I'm not.	**D1:** I can sort objects/pictures into groups/lists/tables.

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Subject area: Computing	Coordinator: Jonathan Meatyard	Review date: 13.09.20
Year group: **Year 1**		

National Curriculum skills to be taught in this year group:		
E-Safety and E- Sense	**ES1:** Pupils should be taught to use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or their online technologies. **ES2:** I can keep my password private. I can tell you what personal information is. **ES3:** I can tell an adult when I see something unexpected or worrying online.	**ES4:** I can talk about why it's important to be kind and polite. **ES5:** I can recognise an age appropriate website. **ES6:** I can agree and follow sensible e-safety rules.
Programming	**P1:** Pupils should be taught to understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. **P2:** I can create and debug simple programs. **P3:** I can use logical reasoning to predict the behaviour of simple programs. **P4: I** can give instructions to my friend and follow their instructions to move around. **P5:** I can describe what happens when I press buttons on a robot.	**P6:** I can press the buttons in the correct order to make my robot do what I want. **P7:** I can describe what actions I will need to do to make something happen and begin to use the word 'algorithm'. **P8:** I can begin to predict what will happen for a short sequence of instructions. **P9:** I can begin to use software/apps to create movement and patterns on a screen. **P10**: I can use the word 'debug' when I correct mistakes when I program.
Handling data	**HD1:** Pupils should be taught to use technology purposefully to organise and manipulate digital content. **HD2:** I can talk about the different ways data can be organised. **HD3:** I can search a ready-made database to answer questions. **HD4:** I can collect data to help me answer a question.	**HD5:** I can add to a database **HD6:** I can make a branching database. **HD7:** I can use a data logger to monitor changes and can talk about the information collected
Multimedia	**M1:** Pupils should be taught to use technology purposefully to create digital content. **M2:** I can be creative with different technology tools. **M3:** I can use technology to create and present my ideas.	**M4:** I can use the keyboard or a word bank on my device to enter text. **M5:** I can save information in a special place and retrieve it again.
Technology in our lives	**TIOL 1:** Pupils should be taught to use technology purposefully to store and retrieve digital content and to recognise common uses of information technology beyond school. **TOIL2:** I can recognise the way we use technology in our classroom. **TIOL 3:** I can recognise ways that technology is used in my home and community.	**TIOL 4:** I can use links to websites to find information. **TIOL 5:** I can begin to identify some of the benefits of using technology

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Subject area: Computing		Coordinator: Jonathan Meatyard	Review date: 13.09.20
Year group: Year 2			
National Curriculum skills to be taught in this year group:			

E-Safety and E- Sense	• **ES1:** Pupils should be taught to use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or their online technologies. • **ES2:** I can describe the things that happen online that I must tell an adult about. • **ES3:** I can talk about why I should go online for a short amount of time.	• **ES4:** I can talk about why it is important to be kind and polite online and in real life. • **ES5:** I know that not everyone is who they say they are on the internet.
Programming	• **P1:** Pupils should be taught to understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. • **P2:** I can create and debug simple programs. • **P3:** I can use logical reasoning to predict the behaviour of simple programs. • **P4:** I can give instructions to my friend (using forward, backward and turn) and physically follow their instructions. • **P5:** I can tell you the order I need to do things to make something happen and talk about this as an algorithm.	• **P6:** I can program a robot or software to do a particular task. • **P7:** I can look at my friend's program and tell you what will happen. • **P8:** I can use programming software to make objects move. • **P9:** I can watch a program execute and spot where it goes wrong so that I can debug it.
Handling data	• **HD1:** Pupils should be taught to use technology purposefully to organise and manipulate digital content. • **HD2:** I can talk about the different ways I use technology to collect information, including a camera, microscope or sound recorder. • **HD3:** I can make and save a chart or graph using the data I collect.	• **HD4:** I can talk about the data that is shown in my chart or graph. • **HD5:** I am starting to understand a branching database. • **HD6:** I can tell you what kind of information I could use to help me investigate a question.
Multimedia	• **M1:** Pupils should be taught to use technology purposefully to create digital content. • **M2:** I can use technology to organise and present my ideas in different ways. • **M3:** I can use the keyboard on my device to add, delete and space text for others to read.	• **M4:** I can tell you about an online tool that will help me to share my ideas with other people. • **M5:** I can save and open files on the device I use,
Technology in our lives	• **TIOL 1:** Pupils should be taught to use technology purposefully to store and retrieve digital content and to recognise common uses of information technology beyond school. • **TOIL2:** I can tell you why I use technology in the classroom. • **TIOL 3:** I can tell you why I use technology in my home and community.	• **TIOL 4:** I am starting to understand that other people have created the information I use. • **TIOL 5:** I can identify benefits of using technology including finding information, creating and communicating. • **TIOL6:** I can talk about the differences between the internet and things in the physical world.

Hughenden Primary School – Computing skills Progression Framework

Subject area: Computing	Coordinator: Jonathan Meatyard Review date: 13.09.20
Year group: Year 3	

National Curriculum skills to be taught in this year group:		
E-Safety and E- Sense	• **ES1:** Pupils should be taught to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour, identify a range of ways to report concerns about content and contact. Be discerning in evaluating digital content. • **ES2:** I can talk about what makes a secure password and why they are important. • **ES3:** I can protect my personal information when I do different things online. • **ES4:** I can use the safety features of websites as well as reporting concerns to an adult.	• **ES5:** I can recognise websites and games appropriate for my age. • **ES6:** I can make good choices about how long I spend online. • **ES7:** I ask an adult before downloading files and games from the internet. • **ES8:** I can post positive comments online.
Programming	• **P1:** Pupils should be taught to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • **P2:** I can use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	• **P3:** 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. • **P4:** I can break an open-ended problem up into smaller parts. • **P5:** I can put programming commands into a sequence to achieve a specific outcome. • **P6:** I keep testing my program and can recognise when I need to debug it. • **P7:** I can use repeat commands.	• **P8:** I can describe the algorithm I will need for a simple task. • **P9:** I can detect a problem in an algorithm which could result in.
Handling data	• **HD1:** Pupils should be taught to 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. • **HD2:** I can talk about the different ways data can be organised. • **HD3:** I can search a ready-made database to answer questions.	• **HD4:** I can collect data to help me answer a question. • **HD5:** I can add to a database • **HD6:** I can make a branching database. • **HD7:** I can use a data logger to monitor changes and can talk about the information collected.	
Multimedia	• **M1:** I can create different effects with different technology tools. • **M2:** I can combine a mixture of text, graphics and sound to share my ideas and learning. • **M3:** I can use appropriate keyboard commands to amend text on my device, including making use of a spellchecker.	• **M4:** I can evaluate my work and improve its effectiveness. • **M5:** I can use an appropriate tool to share my work online. • **M6:** Pupils should be taught to 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.	
Technology in our lives	• **TIOL 1:** Pupils should be taught to 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. • **TOIL2:** I can save and retrieve work on the internet, the school network or my own device. • **TIOL 3:** I can talk about the parts of a computer. • **TIOL 4:** I can tell you ways to communicate with others online.	• **TIOL 5:** I can describe the World Wide Web as the part of the internet that contains websites. • **TIOL6:** I can use search tools to find and use an appropriate website. • **TIOL7:** I can think about whether I can use images that I find online in my own work.	

Hughenden Primary School – Computing skills Progression Framework

Subject area: Computing		Coordinator: Jonathan Meatyard	Review date: 13.09.20
Year group: Year 4			

National Curriculum skills to be taught in this year group:			
E-Safety and E-Sense	• **ES1:** Pupils should be taught to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour, identify a range of ways to report concerns about content and contact. Be discerning in evaluating digital content. • **ES2:** I can choose a secure password when I am using a website. • **ES3:** I can talk about the ways I can protect myself and my friends from harm online. • **ES4:** I can use the safety features of websites as well as reporting concerns to an adult. • **ES5:** I know that anything I post online can be seen by others.		• **ES6:** I choose websites and games that are appropriate for my age. • **ES7:** I can help my friends make good choices about the time they spend online. • **ES8:** I can talk about why I need to ask a trusted adult before downloading files and games from the internet. • **ES9:** I comment positively and respectfully online.
Programming	• **P1:** Pupils should be taught to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • **P2:** I can use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	• **P3:** 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.	• **P4:** I can use logical thinking to solve an open-ended problem by breaking it up into smaller parts. • **P5:** I can use an efficient procedure to simplify a program. • **P6:** I can use a sensor to detect a change which can select an action within my program. • **P7:** I know that I need to keep testing my program while I am putting it together. • **P8:** I can use a variety of tools to create a program. • **P9:** I can recognise an error in a program and debug it.
Handling data	• **HD1:** Pupils should be taught to 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.		• **HD2:** I can organise data in different ways. • **HD3:** I can collect data and identify where it could be inaccurate. • **HD4:** I can plan, create and search a database to answer questions. • **HD5:** I can choose the best way to present data to my friends. • **HD6:** I can use a data logger to record and share my readings with my friends.
Multimedia	• **M1:** Pupils should be taught to 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. • **M2:** I can use photos, video and sound to create an atmosphere when presenting to different audiences. • **M3:** I am confident to explore new media to extend what I can achieve. • **M4:** I can change the appearance of text to increase its effectiveness.		• **M5:** I can create, modify and present documents for a particular purpose. • **M6:** I can use a keyboard confidently and make use of a spellchecker to write and review my work. • **M7:** I can use an appropriate tool to share my work and collaborate online. • **M8:** I can give constructive feedback to my friends to help them improve their work and refine my own work.
Technology in our lives	• **TIOL 1:** Pupils should be taught to 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. • **TOIL2:** I can tell you whether a resource I am using is on the internet, the school network or my own device. • **TIOL 3:** I can identify key words to use when searching safely on the World Wide Web. I think about the reliability of information I read on the World Wide Web. • **TIOL 4:** I can tell you how to check who owns photos, text and clipart. • **TIOL 5:** I can create a hyperlink to are source on the World Wide Web.		

Hughenden Primary School – Computing skills Progression Framework

Subject area: Computing	Coordinator: Jonathan Meatyard Review date: 13.09.20

| Year group: Year 5 | |

National Curriculum skills to be taught in this year group:		
E-Safety and E- Sense	• **ES1:** Pupils should be taught to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour, identify a range of ways to report concerns about content and contact. Be discerning in evaluating digital content. • **ES2:** I protect my password and other personal information. • **ES3:** I can explain why I need to protect myself and my friends and the best ways to do this, including reporting concerns to an adult. • **ES4:** I know that anything I post online can be seen, used and may affect others • **ES5:** I can talk about the dangers of spending too long online or playing a game.	• **ES6:** I can explain the importance of communicating kindly and respectfully. • **ES7:** I can discuss the importance of choosing an age- appropriate website or game. • **ES8:** I can explain why I need to protect my computer or device from harm. • **ES9:** I know which resources on the internet I can download and use.
Programming	• **P1:** Pupils should be taught to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • **P2:** I can use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • **P3:** 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. • **P4:** I can decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program	• **P5:** I can refine a procedure using repeat commands to improve a program. • **P6:** I can use a variable to increase programming possibilities. • **P7:** I can change an input to a program to achieve a different output. • **P8:** I can use 'if' and 'then' commands to select an action. — • **P9:** I can talk about how a computer model can provide information about a physical system. • **P10:** I can use logical reasoning to detect and debug mistakes in a program. • **P11:** I use logical thinking, imagination and creativity to extend a program.
Handling data	• **HD1:** Pupils should be taught to 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. • **HD2:** I can use a spreadsheet and database to collect and record data • **HD3:** I can choose an appropriate tool to help me collect data.	• **HD4:** I can present data in an appropriate way • **HD5:** I can search a database using different operators to refine my search. • **HD6:** I can talk about mistakes in data and suggest how it could be checked.
Multimedia	• **M1:** Pupils should be taught to 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. • **M2:** I can use text, photo, sound and video editing tools to refine my work. • **M3:** I can use the skills I have already developed to create content using unfamiliar technology.	• **M4:** I can select, use and combine the appropriate technology tools to create effects that will have an impact on others. • **M5:** I can select an appropriate online or offline tool to create and share ideas. • **M6:** I can review and improve my work and support others to improve their work.
Technology in our lives	• **TIOL 1:** Pupils should be taught to 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. • **TOIL2: I** can describe different parts of the internet. I can use different online communication tools for different purposes. • **TIOL 3:** I can use a search engine to find appropriate information and check its reliability. • **TIOL 4:** I can recognise and evaluate different types of information I find on the World Wide Web. • **TIOL 5:** I can describe the different parts of a webpage. I can find out who the information on a webpage belongs to.	

Hughenden Primary School – Computing skills Progression Framework

Subject area: Computing		Coordinator: Jonathan Meatyard	Review date: 13.09.20
Year group: Year 6			

National Curriculum skills to be taught in this year group:

E-Safety and E- Sense	• **ES1:** Pupils should be taught to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour, identify a range of ways to report concerns about content and contact. Be discerning in evaluating digital content. • **ES2:** I can protect my password and other personal information. • **ES3:** I can explain the consequences of sharing too much information about myself online. • **ES4:** I support my friends to protect themselves and make good choices online, including reporting concerns to an adult.	• **ES5:** I can explain the consequences of spending too much time online or on a game. • **ES6:** I can explain the consequences to myself and others of not communicating kindly and respectfully. • **ES7:** I protect my computer or device from harm on the internet.
Programming	• **P1:** Pupils should be taught to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • **P2:** I can use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • **P3:** 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.	• **P4: I** can deconstruct a problem into smaller steps, recognising similarities to solutions used before. • **P5:** I can explain and program each of the steps in my algorithm. • **P6:** I can evaluate the effectiveness and efficiency of my algorithm while I continually test the programming of that algorithm. • **P7:** I can recognise when I need to use a variable to achieve a required output.
		• **P8:** I can use a variable and operators to stop a program. • **P9:** I can use different inputs (including sensors) to control a device or onscreen action and predict what will happen. • **P10:** I can use logical reasoning to detect and correct errors in algorithms and programs.
Handling data	• **HD1:** Pupils should be taught to 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. • **HD2: I** can plan the process needed to investigate the world around me. • **HD3:** I can select the most effective tool to collect data for my investigation. • **HD4:** I can check the data I collect for accuracy and plausibility.	• **HD5:** I can interpret the data I collect. • **HD6:** I can present the data I collect in an appropriate way. • **HD7:** I use the skills I have developed to interrogate a database.
Multimedia	• **M1:** I can talk about audience, atmosphere and structure when planning a particular outcome. • **M2:** I can confidently identify the potential of unfamiliar technology to increase my creativity. • **M3:** I can combine a range of media, recognising the contribution of each to achieve a particular outcome.	• **M4:** I can tell you why I select a particular online tool for a specific purpose. • **M5:** I can be digitally discerning when evaluating the effectiveness of my work and the work of others.
Technology in our lives	• **TIOL 1:** Pupils should be taught to 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. • **TOIL2:** I can tell you the internet services I need to use for different purposes. • **TIOL 3:** I describe how information is transported on the internet.	• **TIOL 4:** I can select an appropriate tool to communicate and collaborate online. • **TIOL 5:** I can talk about the way search results are selected and ranked. I can check the reliability of a website. • **TIOL 6:** I can tell you about copyright and acknowledge the sources of information that I find online.