



## Ings Farm Primary Long Term Plan

# Computing 2016-2017

### Skills & Processes

- |   |                        |
|---|------------------------|
| 1 | Computer science       |
| 2 | Information technology |
| 3 | Digital literacy       |
| 4 | E – safety             |

Skills & Processes involved - Indicate by term or **C** for continuous

Year	Term 1	Term 2	Term 3	1	2	3	4		
Nursery	<b>2Simple and Simple City</b> – adults model using programs with information videos <b>Exploring and operating simple equipment</b> – independent use of CD players to listen to stories/variety of torches etc.	<b>2Simple and Simple City</b> – adults model using programs with information videos <b>Communicating ideas</b> – use of iPad to record themselves	<b>Range of programs and websites</b> – adults model using programs with information videos <b>Explore remote control toys</b> <b>Communicating ideas</b> – use of iPad to record their environment				C		
Reception	<b>Control</b> – Beebots and a range of toy including Lego cameras	<b>Cause and effect</b> – IWB, touch screen computers, use of a mouse, CD players, keyboard work etc.	<b>Control</b> – Beebots and a range of toy including Lego cameras <b>Cause and effect</b> – IWB, touch screen computers, use of a mouse, CD players, keyboard work etc.				C		
Year 1	<b>Using technology</b> – labelled picture of the seasons of digital sound involving more than one instrument. Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	<b>Programming</b> – screen turtle and writing instructions for ‘people bots’. Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	<b>Data Handling</b> – chart on data from maths. Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	3	1,2	1,2	C		
Year 2	<b>Using technology</b> – create a postcard <b>Understanding technology</b> – be able to send and receive a simple email. Recognise common uses of information technology beyond school. Use technology purposefully to create, organise, store, manipulate and retrieve digital content. 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 other online technologies.	<b>Using technology</b> – create a leaflet and choose software for a task. <b>Data handling</b> – a range of different types of graphs/charts/databases to show rainfall. Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Collect, analyse, evaluate and present data and information.	<b>Programming</b> – debugging pre-programmed beebots, espresso coding, Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.	3	1,2	1,2	C		
Year 3	<b>Programming</b> – introduction to Scratch <b>Programming</b> – Lego WeDo Design and write programs that accomplish a specific goal. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Use sequence, selection and repetition in programs.	<b>Using technology</b> – presenting work about the Romans Select, use and combine a variety of software (including internet services) on a range to design and create something that accomplishes given goals, including collecting, analysing, evaluating and presenting data and information. <b>Understanding technology</b> – collaborative writing about healthy eating Understand the opportunities offered for communication and collaboration.	<b>Programming</b> – introduce more complex programming and de-bug pre-written coding. Design, write and debug programs that accomplish a specific goal. <b>Data handling</b> – data logging with data from PE lessons. Collect, analyse, evaluate and present data and information.	1,3	2,3	2	C		
Year 4	<b>Using technology</b> – collaborative writing Understand the opportunities offered for communication and collaboration.	<b>Using technology</b> – presenting work for different audiences Select, use and combine a variety of software (including internet services) to design and create something that accomplishes given goals, including collecting, analysing, evaluating and presenting data and information.	<b>Data handling</b> – database about habitats and minibeasts Select, use and combine a variety of software (including internet services) to design and create something that accomplishes given goals, including collecting, analysing and evaluating data. <b>Programming</b> – develop knowledge of Scratch to	2,3	2	1	C		

		<p><b>Programming</b> – Lego WeDo/espresso Use sequence, selection and repetition in programs; work with variables and various forms of input and output.</p>	<p>create a game Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p>					
Year 5	<p><b>Data handling</b> – create spreadsheets using Excel about USA Select, use and combine a variety of software (including internet services) to design and create something that accomplishes given goals, including collecting, analysing and evaluating data.</p> <p><b>Using technology</b> – present information from research about the Greeks. Be discerning in evaluation digital content. Appreciate how search results are selected and ranked. Use search technologies effectively.</p>	<p><b>Data handling</b> – create a database about Space using 2investigate Select, use and combine a variety of software (including internet services) to design and create something that accomplishes given goals, including collecting, analysing and evaluating data.</p> <p>Use search technologies effectively. <b>Programming</b> – to create a game linking with rivers Use sequence, selection and repetition in programs; work with variables and various forms of input and output. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p>	<p><b>Programming</b> – Scratch with Lego WeDo to create a range of different animals for a rainforest. Use sequence, selection and repetition in programs; work with variables and various forms of input and output. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p><b>Using and understanding technology</b> – collaborative writing about the Mayans Use search technologies effectively.</p> <p>Select, use and combine a variety of software (including internet services) to accomplish given goals, presenting information. Understand the opportunities [networks] offer for communication and collaboration. Be discerning in evaluating digital content. Use technology safely, respectfully and responsibly.</p>	2,3	1,2	1,3	C	
Year 6	<p><b>Understanding technology</b> – blogging/email with attachments/networking etc. Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web. Understand the opportunities [networks] offer for communication and collaboration. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p><b>Programming</b> – using EV3 Mindstorm and Kodu to create real world experiences. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. 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.</p>	<p><b>Programming</b> – using EV3 Mindstorm and Kodu to create real world experiences. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. 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.</p> <p><b>Data handling</b> – create spreadsheet linked with China using filters and formulae Select, use and combine a variety of software (including internet services) to design and create something that accomplishes given goals, including collecting, analysing and evaluating data. Use search technologies effectively.</p>	<p><b>Using and understand technology</b> – create a presentation using a wide range of software for a range of audiences Select, use and combine a variety of software (including internet services) to design and create something that accomplishes given goals, including presenting information. Understand the opportunities [networks] offer for communication and collaboration. Be discerning in evaluating digital content.</p>	1	1,2,3	3	C	
Whole School	E-safety day with a performance for KS2 and KS1 to complete some e-safety work.	Children to be using class blog and school email (KS2) throughout the year. Continual discussion about staying safe online before any internet use and when emailing. How children identify what is unacceptable behaviour online and how to report this.					C	

