

Crow Orchard Primary School



End of Term Expectations (End Points)

Computing

Cycle A

		<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>			
Y E A R 3 / 4		Unit 3.2 Online safety Unit 3.1 Coding	Unit 3.3 Spreadsheets	Unit 3.4 Touch Typing	Unit 3.5 Email (including email safety)	Unit 3.6 Branching Databases Unit 3.7 Simulations Number of lessons – 3	Unit 3.8 Graphing
	<u>Digital Literacy</u> Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.						
	<u>Unit 3:2</u> <ul style="list-style-type: none"> • Children understand what makes a good password for use on the Internet. Children are beginning to realise the outcomes of not keeping passwords safe. • Children can contribute to a concept map of all the different ways they know that the Internet can help us to communicate. • Children have contributed to a class blog with clear and appropriate messages. • Children understand that some information held on websites may not be accurate or true. • Children are beginning to understand how to search the Internet and how to think critically about the results that are returned. 			<u>Unit 3:5</u> <ul style="list-style-type: none"> • Children have written rules about how to stay safe using email. • Children have contributed to classmates' rules. • Children have created a quiz about email safety that explores scenarios that I could come across in the future 			

<ul style="list-style-type: none"> • Children have accessed and assessed a 'spoof' website. • Children have created their own 'spoof' webpage mock-up. • Children have shared their 'spoof' web page on a class display board. • Children can identify some physical and emotional effects of playing/watching inappropriate content/games. • Children relate cyberbullying to bullying in the real-world and have strategies for dealing with online bullying including screenshot and reporting. 		
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Information Technology

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

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.

<p><u>Unit 3:3</u></p> <ul style="list-style-type: none"> • Children can create a table of data on a spreadsheet. • Children can use a spreadsheet program to automatically create charts and graphs from data. • Children can use the 'more than', 'less than' and 'equals' tools to compare different numbers and help to work out solutions to sums. • Children can use the 'spin' tool to count through times tables • Children can describe a cell location in a spreadsheet using the notation of a letter for the column followed by a number for the row. 	<p><u>Units 3:4</u></p> <ul style="list-style-type: none"> •Children understand the names of the fingers •Children understand what is meant by – top row, home row, bottom row and space bar •Children can use two hands to type the letters on the keyboard. •Children can type full words using the correct fingering. •Children can type a series of words with speed and accuracy. <p><u>Unit 3:5</u></p> <ul style="list-style-type: none"> •Children can list a range of different ways to communicate. •Children can use 2Connect to highlight strengths and weaknesses of each method. 	<p><u>Unit 3:6</u></p> <ul style="list-style-type: none"> • Children understand how YES / NO questions are structured and answered. • Children have used YES/NO questioning to play a simple game with a friend. • Children have contributed to a class branching database about fruit. • Children have completed a branching database about vegetables • Children can choose a suitable topic for a branching database. • Children can select and save appropriate images. Children can create a branching database. • Children know how to use and debug their own branching database. <p><u>Unit 3:8</u></p>
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<ul style="list-style-type: none"> • Children can find specified locations in a spreadsheet. 	<ul style="list-style-type: none"> •Children can open an email and respond to it. •Children have sent emails to other children in the class •Children can attach work to an email. •Children know what CC means and how to use it. •Children can read and respond to a series of email communications. •Children can attach files appropriately and use email communication to explore ideas 	<ul style="list-style-type: none"> • Children can set up a graph with a given number of fields. • Children can enter data for a graph. • Children can produce and share graphs made on the computer. • Children have solved a maths investigation. Children can present the results in a range of graphical formats.
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Computer science

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.

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.

Unit 3:1

- Children can create a design that represents a sequential algorithm.
- Children can use a flowchart design to create the code.
- Children can explain what Object, Action, Output, Control and Event are in computer programming.
- Children can explain how their program simulates a physical system, i.e. my vehicles move at different speeds and angles.
- Children can describe what they did to make their vehicle change angle.
- Children can show that their vehicles move at different speeds

Unit 3:7

- Children can give some examples of simulations used for fun and for work.
- Children can give suggestions of advantages and problems of simulations.
- Children know that a computer simulation can represent real and imaginary situations
- Children can use a simulation to try out different options and to test predictions.
- Children can begin to evaluate simulations by comparing them with real situations and considering their usefulness.
- Children can recognise patterns within simulations and make and test predictions.

<ul style="list-style-type: none"> •Children can make use of the X and Y properties of objects in their coding. •Children can create an if statement in their program. •Children can use a timer and if statement to introduce selection in their program •Children can explain what a variable is in programming. •Children can explain why variables need to be named. •Children can create a variable in a program. Children can set/change the variable values appropriately to create a timer. •Children can show how their character repeats an action and explain how they caused it to do so. •Children are beginning to understand how the use of the timer differs from the repeat command and can experiment with the different methods of repeating blocks of code. •Children can explain how they made objects repeat actions. •Children can explain what debug (debugging) means. •Children have a clear idea of how to use a design document to start debugging a program. •Children can debug simple programs. •Children can explain why it is important to save their work after each functioning iteration of the program they are making. 		<ul style="list-style-type: none"> • Children can identify the relationships and rules on which the simulations are based and test their predictions. • Children can evaluate a simulation to determine its usefulness for purpose. • Children can write a program that controls how a character will move. • Children can make a character move when
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