Crow Orchard Primary School

End of Term Expectations (End Points)

Computing

Cycle B

	Autumn		Spring		Summer	
Y E A R 3 / 4	**Unit 4.2 Online safety Unit 4.1 Coding**	**Unit 4.3 Spreadsheets**	**Unit 4.4 Writing for different audiences**	**Unit 4.5 Logo**	**Unit 4.6 Animation**	**Unit 4.7 Effective Search Unit 4.8 Hardware Investigators**
	Digital Literacy Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.					
	Unit 4:2 •Children know that security symbols such as a padlock protect their identity online. •Children know the meaning of the term 'phishing' and are aware of the existence of scam websites. •Children can explain what a digital footprint is and how it relates to identity theft. •Children can give examples of things that they wouldn't want to be in their digital footprint. •Children can identify possible risks of installing free and paid for software. •Children know that malware is software that is specifically designed to disrupt, damage, or gain access to a computer. •Children know what a computer virus is.					

•Children are able to determine whether activities that they undertake online, infringe another's' copyright. They know the difference between researching and using information and copying it •Children know about citing sources that they have used. •Children consider the reliability of the source of information when looking online. •Children are able to take more informed ownership of the way that they choose to use their free time. They recognise a need to find a balance between being active and digital activities. •Children can give reasons for limiting screen time.	

<table>
<tr><td colspan="2" align="center">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.</td></tr>
<tr>
<td>Unit 4:3
• Children can use the number formatting tools within 2Calculate to appropriately format numbers. Children can add a formula to a cell to automatically make a calculation in that cell.
• Children can use the timer, random number and spin button tools.
• Children can combine tools to make fun ways to explore number.
• Children can use a series of data in a spreadsheet to create a line graph.
• Children can use a line graph to find out when the temperature in the playground will reach 20°C.
• Children can make practical use of a spreadsheet to help them plan actions.</td>
<td>Unit 4:6
• Children have put together a simple animation using paper to create a flick book.
• Children have an understanding of animation frames.
• Children have made a simple animation using 2Animate.
• Children know what the Onion Skin tool does in animation.
• Children can use the Onion Skin tool to create an animated image.
• Children can use backgrounds and sounds to make more complex and imaginative animations
• Children know what 'stop motion' animation is and how it is created.</td>
</tr>
</table>

• Children can use the currency formatting in 2Calculate. • Children can allocate values to images and use these to explore place value. • Children can use a spreadsheet made in 2Calculate to check their understanding of a mathematical concept. **Unit 4:4** • Children have looked at and discussed a variety of written material where the font size and type are tailored to the purpose of the text. • Children have used text formatting to make a piece of writing fit for its audience and purpose • Children have role-played the job of a journalist in a newsroom. • Children have interpreted a variety of incoming communications and used these to build up the details of a story. • Children have used the incoming information to write their own newspaper report. • Children have used 2Connect to mind-map ideas for a community campaign. • Children have used these ideas to write a persuasive letter or poster as part of the campaign. Children have assessed their texts using criteria to judge their suitability for the intended audience.	• Children have used ideas from existing 'stop motion' films to recreate their own animation. Children have shared their animations and commented on each other's work using display boards and blogs in Purple Mash. **Unit 4:7** • Children can structure search queries to locate specific information • Children have used search to answer a series of questions. • Children have written search questions for a friend to solve • Children can analyse the contents of a web page for clues about the credibility of the information. **Unit 4:8** • Children can name the different parts of a desktop computer. • Children know what the function of the different parts of a computer is • Children have created a leaflet to show the function of computer parts

	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 4:1		Unit 4.5
• Children can use sketching to design a program and reflect upon their design. • Children can create code that conforms to their design • Children can create an 'If/else' statement. • Children understand what a variable is in programming. Children can set/change the variable values appropriately. • Children can interpret a flowchart that depicts an if/else flowchart. • Children can show how a character repeats an action and explain how they caused it to do so. • Children can make a character respond to user keyboard input. • Children can explain what a variable is when used in programming. • Children can create a timer that prints a new number to the screen every second. • Children can explain how they made their program change the number every second. • Children can create an algorithm modelling the sequence of a simple event. • Children can manipulate graphics in the design view to achieve the desired look for the program. • Children can use an algorithm when making a simulation of an event on the computer. • Children can make good attempts to break down their aims for a coding task into smaller achievable steps. •Children recognise the need to start coding at a basic level of abstraction to remove superfluous details from their		• Children know what the different instructions are in Logo and how to type them. • Children can follow simple Logo instructions to create shapes on paper. • Children can follow simple instructions to create shapes in Logo. • Children can create Logo instructions to draw letters of increasing complexity. • Children can write Logo instructions for a word of four letters. • Children can predict what shapes will be made from Logo instructions. • Children can create shapes using the Repeat function. • Children can find the most efficient way to draw shapes. • Children can use the Build feature. • Children can create 'flowers' using Logo.

program that do not contribute to the aim of the task.		

Kindness	Curiosity	Creativity	Courage	Proud	Honesty	Aspire	Resilience