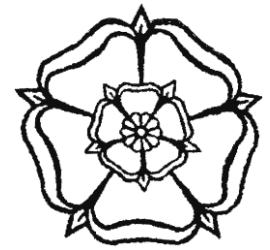




# Thornton-in-Craven Community Primary and Nursery School

Cam Lane, Thornton-in-Craven, North Yorkshire, BD23 3SX



## Computing Progression of Skills

Children are taught in mixed age classes

	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Class One		Class Two		Class Three		Class Four	
<b>Computer Science</b>	Explore how things work <b>UTW</b>	Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function <b>ELG</b>	Control motion by specifying the number of steps to travel, direction and turn.  Create simple programs  Control motion of an object, when drawings/objects appear/move and set the pen colour, size and shape. (e.g beebot)  <b>Create a simple program - using movement controls to enable an object to move in a specified direction and</b>	Understand that programs execute by: following precise and unambiguous instructions  Create and debug simple programs  Add text strings, show and hide objects and change the features of an object.  Select sounds and control when they are heard, their duration and volume.  Control when	Create and debug simple programs  Use logical reasoning to predict the behaviour of simple programs  Use specified screen coordinates to control movement.  Set the appearance of objects and create sequences of changes.  Create and edit sounds, control when they are heard, their volume, duration and rests.	Write programs that accomplish specific goals  Use sequence and repetition in programs  Use specified screen coordinates to control movement.  Set the appearance of objects and create sequences of changes.  Create and edit sounds, control when they are heard, their volume, duration and rests.  Control the	Design, create and debug programs that accomplish specific goals.  Use logical reasoning to detect and correct errors in programs.  Use sequence and repetition in programs.  Control or simulate physical systems.  Use IF THEN conditions to control events or objects.  Combine the use of pens with movement to	Use logical reasoning to explain how some simple algorithms work  Use logical reasoning to detect and correct errors in algorithms  Set IF conditions for movements.  Change the position of objects between screen layers (send to back, bring to front).  Upload sounds from a file and edit them - add effects such as fade in and out and control their

			<p><b>exploring different draw controls such as, pen down/up, colour, shape, size.</b></p>	<p>drawings appear and set the pen colour, size and shape.</p> <p>Specify user inputs (such as clicks) to control events.</p> <p>Specify the nature of events (such as a single event or a loop)</p> <p>Create conditions for actions by waiting for a user input (such as responses to questions like: What is your name?) (Logo, Turtle, Scratch, Bee-Bot)</p> <p><b>Create and test a simple program -using movement controls to enable an object to move in a specified direction - using draw controls such</b></p>	<p>Control the shade/size/colour of pens. (Logo, Turtle, Scratch)</p> <p><b>Create, test and correct a program - using movement controls/specified screen coordinates within a program to enable an object to move in a specified direction - using appearance controls in order to set/change the appearance of objects – use time controls such as, repeat, event to occur in x seconds – using sound controls to set/edit sound volume/duration.</b></p>	<p>shade/size/colour of pens.</p> <p>Specify conditions to trigger events.</p> <p>Work with various forms of input and output</p> <p>Create conditions for actions by sensing proximity or by waiting for a user input.</p> <p>Use variables to store a value.</p> <p>Use the functions define, set, change, show and hide to control the variables.</p> <p>Use the reporter operators (cloning) to perform calculations. (Logo, Turtle, Scratch)</p> <p><b>Create, test and correct program to accomplish specific goal.</b></p> <p><b>Create programs</b></p>	<p>create interesting effects.</p> <p>Use a range of sensing tools to control events or actions.</p> <p>Understand how computer networks can provide multiple services, such as the World Wide Web</p> <p>Appreciate how search results are selected and ranked (Scratch, Python)</p> <p><b>Create, test and correct more complex programs to accomplish specific goals.</b></p> <p><b>Create programs using specified screen coordinates within a program to enable an object to move in a specified</b></p>	<p>implementation.</p> <ul style="list-style-type: none"> <li>Combine the use of pens with movement to create interesting effects.</li> <li>Set events to control other events by ‘broadcasting’ information as a trigger.</li> <li>Use IF THEN ELSE conditions to control events or objects.</li> <li>Use a range of sensing tools to control events or actions.</li> <li>Create, test and correct more complex programs to accomplish specific goals.</li> <li>Create programs using specified screen coordinates within a program</li> </ul>
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				<p>as, pen down/up, colour, shape, size - using time controls such as, repeat, event to occur in x seconds.</p>		<p>using specified screen coordinates to enable an object to move in a specified direction - using appearance controls in order to set/change the appearance of objects - using time controls such as, repeat, event to occur in x seconds - using sound controls within a program to set/edit sound volume/duration.</p>	<p>direction - using appearance controls in order to set/change the appearance of objects - using time controls such as, repeat, sequence, event to occur in x seconds - using sound controls within a program to set/edit sound volume/duration - using inputs and outputs - using IF THEN conditions to control events or objects.</p>	<p>to enable an object to move in a specified direction - using appearance controls in order to set/change the appearance of objects - using time controls such as, repeat, sequence, event to occur in x seconds - using sound</p> <p>Use selection, sequence and repetition in programs</p> <p>Use variables in a program to store a value.</p> <p>Use true/false values (Boolean operators) to define conditions.</p> <p>Use the reporter operators (cloning properties) to perform calculations. (Scratch, Python)</p>
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							<p>Understand how simple computer networks are set up and used</p> <p><b>Create, test and correct more complex programs to accomplish specific goals.</b></p> <p><b>Create programs using specified screen coordinates within a program to enable an object to move in a specified direction - using appearance controls in order to set/change the appearance of objects - using time controls such as, repeat, sequence, event to occur in x seconds - using sound controls within a program to set/edit sound volume/duration - using inputs and outputs -</b></p>
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								using IF THEN conditions to control events or objects - using true/false values to define conditions - using cloning
<b>Information Technology</b>	<p>Match their developing physical skills to tasks and activities in the setting <b>PD</b></p> <p>Explore how things work <b>UTW</b></p>	<p>Be confident to try new activities and show independence, resilience and perseverance in the fact of challenge <b>ELG</b></p> <p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function <b>ELG</b></p>	<p>Use technology to create, store and retrieve digital content.</p> <p>Use a simple database to record information.</p> <p><b>Open, save and retrieve a file.</b></p>	<p>Use technology to purposefully create, store and retrieve digital content.</p> <p>Use technology purposefully to organise and manipulate digital content.</p> <p>Use a simple database to record information.</p> <p><b>Open, save and retrieve a file.</b></p> <p>Use copy, cut and paste to enhance and improve texts and images.</p> <p>Record and</p>	<p>Use technology purposefully to organise and manipulate digital content</p> <p>Devise and construct a database using applications designed for this purpose</p> <p><b>Organise desktop/folders moving files between folders/ between home and school.</b></p> <p>Use copy, cut and paste to enhance and improve texts and images.</p> <p>Design and construct a database and present data on a</p>	<p>Use search technologies effectively</p> <p>Use a variety of software to accomplish given goals</p> <p>Devise and construct databases using applications designed for this purpose.</p> <p>Collect and present information</p> <p>Design and create content (Excel, Numbers)</p> <p><b>Organise desktop/folders, moving files between folders/ between home and school.</b></p>	<p>Select, use and combine a variety of software to accomplish given goals.</p> <p>Collect, analyse and evaluate information.</p> <p>Select appropriate applications to devise, construct and manipulate data and present it in an effective manner.</p> <p><b>Organise desktop/folders in a clear manner. moving files between folders/ between home</b></p>	<p>Select appropriate applications to devise, construct and manipulate data</p> <p>Collect, analyse, evaluate data and present it in an effective and professional manner.</p> <p>Select, use and combine software on a range of digital devices.</p> <p><b>Understand how a simple computer network is set up and used.</b></p> <p>Collect, analyse, evaluate data and present it in</p>

				<p>show information on a computer/ipad e.g. data handling.</p> <p>Open and save a file at school created at home or vice versa.</p>	digital device.	<p>Use copy, cut and paste to enhance and improve texts and images.</p> <p>Design and construct a database, presenting information</p>	<p>and school/ between different shared drives.</p> <p>Use copy, cut and paste to enhance and improve texts and images.</p> <p>Collect, analyse and evaluate information in a database and present information in an effective manner.</p>	an effective and professional manner.
<b>Digital Literacy/Esafety</b>	Remember rules without needing an adult to remind them <b>PSED</b>	Know and talk about the different factors that support their overall health and wellbeing – sensible amounts of ‘screen time’ <b>PSED</b>  Explain the reasons for rules, know right from wrong and behave accordingly. <b>ELG</b>	Use a range of applications and devices in order to communicate ideas, work and messages  Participate in class/school social media accounts  Understand online risks and the age rules for sites.  <b>Record and show</b>	Use a range of applications and devices in order to communicate ideas, work and messages.  Recognise common uses of information technology beyond school.  Participate in class/school social media accounts (email, learning platform)	Use different applications and devices in order to communicate ideas, work or messages.  Participate in class/school social media accounts (email, learning platform)  Give examples of the risks posed by online communications.  Understand that	Use some of the advanced features of applications and devices in order to communicate ideas, work or messages.  Contribute to blogs that are moderated by teachers.  Give examples of the risks posed by online communications.  Understand that	Choose the most suitable applications and devices for the purposes of communication.  Use many of the advanced features in order to create high quality communications.  Collaborate with others online on sites approved and moderated by teachers.	Choose the most suitable applications and devices for the purposes of communication.  Use many of the advanced features in order to create high quality, professional or efficient communications.  Collaborate with others online on sites approved and moderated

			<p><b>information on a computer/ipad e.g. data handling.</b></p>	<p>Understand online risks and the age rules for sites.</p> <p>Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies</p> <p><b>Send and receive an email</b></p>	<p>comments made online that are hurtful or offensive are the same as bullying</p> <p>Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies</p> <p><b>Send and receive an email.</b></p> <p><b>Use an internet browser to find specific information.</b></p> <p><b>Understand that comments made online that are hurtful or offensive are the same as bullying.</b></p>	<p>comments made online that are hurtful or offensive are the same as bullying.</p> <p>Identify a range of ways to report concerns about contact</p> <p>Understand how online services work.</p> <p>Understand the term 'copyright'.</p> <p><b>Send and receive emails</b></p> <p><b>Contribute to a class blog.</b></p> <p><b>Use an internet browser effectively to find specific information.</b></p> <p><b>Understand that comments made online that are hurtful or offensive are the same as bullying.</b></p> <p><b>Identify a range of ways to report</b></p>	<p>Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems.</p> <p>Understand the effect of online comments and show responsibility and sensitivity when online.</p> <p>Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission, from the copyright holder.</p> <p><b>Use a variety of different ways to communicate digitally, such as email, blogging, sharing files in a</b></p>	<p>by teachers.</p> <p>Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems.</p> <p>Understand the effect of online comments and show responsibility and sensitivity when online.</p> <p>Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission, from the copyright holder.</p> <p>Be discerning in evaluating digital content.</p>
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						<b>concerns about contact</b>	<b>school intranet.</b>  <b>Understand the effect of online comments and show responsibility and sensitivity when online.</b>  <b>Identify a range of ways to report concerns about contact.</b>	<b>Use a variety of different ways to communicate digitally, such as email, blogging, sharing files in a school intranet.</b>  <b>Understand the effect of online comments and show responsibility and sensitivity when online.</b>  <b>Identify a range of ways to report concerns about contact.</b>
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