

## Computing Progression at Grange Junior School

<b>Year 3 Computing Objectives</b>		
<b><u>Computer Science</u></b>	<b><u>Information Technology</u></b>	<b><u>Digital Literacy</u></b>
<p><b>In addition to objectives taught in the previous year, pupils...</b></p> <p><b>Predict</b> what will happen for a more complex sequence of instructions which uses repetition.</p> <p><b>Investigate</b> how a problem can be solved by <a href="#">decomposing</a> it into smaller steps and by <b>planning</b> a solution.</p> <p><b>Make</b> algorithms that solve problems which use <a href="#">sequences</a> and repetition.</p> <p><b>Improve</b> more complex algorithms by identifying mistakes (<a href="#">bugs</a>) and correcting (<a href="#">debugging</a>)</p>	<p><b>In addition to objectives taught in the previous year, pupils...</b></p> <p><b>Save</b> and <b>retrieve</b> files on the school network (a shared drive like <a href="#">PupilShare</a>), understanding that information can be saved in different places (an individual device, a local <a href="#">network</a> or the cloud)</p> <p><b>Manage</b> various devices correctly, navigating a wide range of apps and software and using individual passwords.</p> <p><b>Input</b> commands using a keyboard on any device (including on a tablet) with increased fluency, using efficient shortcuts where possible <a href="#">i.e.</a> Shift + 'letter' instead of Caps Lock</p> <p><b>Create</b>, <a href="#">modify</a> and present work using different software/apps.</p> <p><b>Evaluate</b> their work and improve its effectiveness.</p> <p>Use technology to <b>present</b> and <b>interpret</b> given data, identifying simple patterns or trends.</p>	<p><b>In addition to our Online Safety curriculum (Education for a Connected World) and objectives taught in the previous year, pupils...</b></p> <p>Begin to <b>recognise</b> the different parts of a school network <a href="#">e.g.</a> WIFI point, server</p> <p><b>Use</b> an online communication system <a href="#">e.g.</a> email, and understand the opportunities this offers.</p> <p><b>Use</b> search operators <a href="#">i.e.</a> + - to filter information in a search engine</p>

## Computing Progression at Grange Junior School

<b>Year 4 Computing Objectives</b>		
<b><u>Computer Science</u></b>	<b><u>Information Technology</u></b>	<b><u>Digital Literacy</u></b>
<p><b>In addition to objectives taught in the previous year, pupils...</b></p> <p><b>Plan</b> the solution to a problem by <b>decomposing</b> into smaller parts e.g. with a flow diagram, storyboard or other plan</p> <p><b>Investigate</b> how algorithms work and identify the purpose of the different parts of an <b>algorithm</b></p> <p><b>Make</b> programs which use <b>sequences</b>, repetition and inputs and outputs when necessary.</p> <p><b>Improve a</b> program by <b>debugging systematically</b></p>	<p><b>In addition to objectives taught in the previous year, pupils...</b></p> <p><b>Save</b> and <b>retrieve</b> work independently on the school network or a Cloud system like Purple Mash, using folders to organise <b>work</b></p> <p>Use a wide range of <b>input</b> devices fluently, such as keyboards, mice and/or <b>touchscreens</b></p> <p><b>Create, modify</b> and present work to accomplish specific goals using a variety of software on a range of digital devices.</p> <p><b>Evaluate</b> their work and improve it, based on their own, and other people's views.</p> <p>Use technology to <b>collect, present</b> and <b>interpret</b> data, using a range of different <b>graphs/charts</b>.</p>	<p><b>In addition to our Online Safety curriculum (Education for a Connected World) and objectives taught in the previous year, pupils...</b></p> <p><b>Recognise</b> different parts of a school or office network e.g. server, switch, router, client, WIFI point,</p> <p><b>Use</b> an online collaboration system e.g. blogging, and understand the opportunities this offers.</p> <p><b>Use</b> a wider range of search operators i.e. "<b>   </b>" ~ define: to efficiently find information in a search engine</p>

## Computing Progression at Grange Junior School

<b>Year 5 Computing Objectives</b>		
<b><u>Computer Science</u></b>	<b><u>Information Technology</u></b>	<b><u>Digital Literacy</u></b>
<p><b>In addition to objectives taught in the previous year, pupils...</b></p> <p><b>Plan</b> efficient solutions to problems that include <a href="#">controlling or simulating physical systems</a>, using <a href="#">decomposition</a> to solve the problem</p> <p><b>Make</b> programs using more <a href="#">complex algorithms</a>, selecting when to use <a href="#">sequences, selection</a>, (if, then), repetition and a range of inputs and outputs</p> <p><b>Investigate</b> how algorithms work on different platforms, by comparing one block-based code language to another (e.g. Scratch with 2Code)</p> <p><b>Improve</b> code by systematically testing and <a href="#">debugging</a> it, with an understanding of logic and syntax <a href="#">bugs</a></p>	<p><b>In addition to objectives taught in the previous year, pupils...</b></p> <p>Understand the difference between cloud based <b>saving</b> and other programs, which need to be manually saved.</p> <p>Use <b>input</b> devices fluently, such as keyboards, mice and/or touchscreens to navigate a system, using shortcuts on a keyboard (Ctrl + B, U, I, S, P)</p> <p><b>Create</b>, modify and present work with a combination of software to achieve a specific goal, using built in functions that help the user such as spellchecker, dictate, immersive <a href="#">reader</a></p> <p><b>Evaluate</b> their work and improve it, understanding how various forms of media e.g. photos, video and sound, can aid this.</p> <p>Use a range of tools within computer-based software to <b>evaluate</b> and <b>analyse</b> data i.e. sort, order and group in a database</p>	<p><b>In addition to our Online Safety curriculum (Education for a Connected World) and objectives taught in the previous year, pupils...</b></p> <p><b>Recognise</b> different parts of a school or office network e.g. server, switch, router, client, Wi-Fi point, and explain the purpose of each.</p> <p><b>Use</b> online communication and collaboration tools for different <a href="#">purposes</a></p> <p><b>Use</b> a search engine efficiently by filtering and begin to understand how results are <a href="#">selected and ranked</a></p>

## Computing Progression at Grange Junior School

Year 6 Computing Objectives		
Computer Science	Information Technology	Digital Literacy
<p>In addition to objectives taught in the previous year, pupils...</p> <p><b>Plan</b> programs to achieve a specific goal, including <a href="#">controlling or simulating of physical systems</a> by <a href="#">decomposing</a> and by choosing an efficient method of <b>planning</b> i.e. storyboarding, flow diagrams or other method, giving reasons for their choice</p> <p><b>Make</b> algorithms which find solutions to problems, which use <a href="#">logical reasoning, sequences, selection</a> (if, then, else), repetition, <a href="#">variables</a> and a range of inputs and outputs</p> <p><b>Investigate</b> different ways of evaluating algorithms for effectiveness and <a href="#">efficiency</a></p> <p><b>Improve</b> algorithms, systematically testing and <a href="#">debugging</a> errors with an understanding of logic and syntax <a href="#">bugs</a></p>	<p>In addition to objectives taught in the previous year, pupils...</p> <p>Use search tools within a system to find <b>saved</b> work.</p> <p>Use <b>input</b> devices fluently, such as keyboards, mice, <a href="#">touchscreens</a> and voice command to enter data in a system.</p> <p><b>Create, modify</b> and present content using a combination of software (including internet service) on a range of digital devices which solves problems, with a regard to audience, atmosphere and user needs.</p> <p><b>Evaluate</b> and refine their work, explaining their choices and the impact it has.</p> <p>Use different functions within computer-based software to present, <b>evaluate</b> and efficiently <b>analyse</b> data <a href="#">i.e.</a> tables, charts, graphs and formula in a spreadsheet.</p>	<p>In addition to our Online Safety curriculum (Education for a Connected World) and objectives taught in the previous year, pupils...</p> <p><b>Recognise</b> the different services that computer networks can provide i.e. the <a href="#">World Wide Web</a></p> <p><b>Use</b> a range of online communication and collaboration tools independently and explain the benefits and limitations of <a href="#">each</a></p> <p><b>Use</b> a search engine efficiently by filtering and deepen their understanding of how results are <a href="#">selected and ranked</a></p>