

Long term plans for

Our Curriculum Drivers are:

Wellbeing

Aspirations

Outdoor Learning

These key drivers are integral to all that we do at Glade, to ensure that all of our pupils leave us as happy, healthy and well-rounded individuals.



**"Growing, Learning, Achieving with Dedication and Enthusiasm"**



## ICT Long Term Plan

Subject	Autumn	Spring	Summer
R	<p>Exploring Different types of ICT equipment through the curriculum.</p> <p>Use of cameras to take pictures and talk about their work.</p>	<p>Links to be make with Jigsaw.</p> <p>We are healthy using timers.</p> <p>How to stay safe online.</p> <p>Using a technology for a purpose.</p> <p>Making short videos.</p> <p>Using microscopes.</p>	<p>Record sound tracks and making music.</p> <p>Controlling equipment through batteries and instructions.</p> <p>Program and sequence instructions.</p>
1	<p><b>Computing systems and networks &amp; Technology around us</b></p> <ul style="list-style-type: none"> <li>-To identify technology</li> <li>-To identify a computer and its main parts</li> <li>-To use a mouse in different ways</li> <li>-To use a keyboard to type on a computer</li> <li>-To use the keyboard to edit text</li> <li>-To create rules for using technology responsibly</li> </ul> <p><b>Creating media - Digital painting</b></p> <ul style="list-style-type: none"> <li>-To describe what different freehand tools do</li> <li>-To use the shape tool and the line tools</li> <li>-To make careful choices when painting a digital picture</li> <li>-To explain why I chose the tools I used</li> <li>-To use a computer on my own to paint a picture</li> <li>-compare painting a picture on a computer and on paper</li> </ul>	<p><b>Programming A - Moving a robot</b></p> <ul style="list-style-type: none"> <li>-To explain what a given command will do</li> <li>-To act out a given word</li> <li>-Forwards and backwards commands to make a sequence</li> <li>-Combine four direction commands to make sequences</li> <li>-To plan a simple program</li> <li>-To find more than one solution to a problem</li> </ul> <p><b>Data and information - Grouping data</b></p> <ul style="list-style-type: none"> <li>-To label objects</li> <li>-To identify that objects can be counted</li> <li>-To describe objects in different ways</li> <li>-To count objects with the same properties</li> <li>-To compare groups of objects</li> <li>-To answer questions about groups of objects</li> </ul>	<p><b>Creating media - Digital writing</b></p> <ul style="list-style-type: none"> <li>-To use a computer to write</li> <li>-To add and remove text on a computer</li> <li>-To identify that the look of text can be changed on a computer</li> <li>-To make careful choices when changing text</li> <li>-To explain why I used the tools that I chose</li> <li>-To compare typing on a computer to writing on paper</li> </ul> <p><b>Programming B - Programming animations</b></p> <ul style="list-style-type: none"> <li>-To choose a command for a given purpose</li> <li>-A series of commands can be joined together</li> <li>-To identify the effect of changing a value</li> <li>-To explain that each sprite has its own instructions</li> <li>-To design the parts of a project</li> <li>-To use my algorithm to create a program</li> </ul>
2	<p><b>Computing systems and networks -IT around us</b></p> <ul style="list-style-type: none"> <li>- uses and features of information technology</li> <li>- uses of information technology in the school</li> <li>-To identify information technology beyond school</li> <li>-To explain how information technology helps us</li> <li>-To explain how to use information technology safely</li> <li>-To recognise that choices are made when using IT</li> </ul> <p><b>Creating media - Digital photography -</b></p> <ul style="list-style-type: none"> <li>-To use a digital device to take a photograph</li> <li>-To make choices when taking a photograph</li> <li>-To describe what makes a good photograph</li> <li>-To decide how photographs can be improved</li> <li>-To use tools to change an image</li> <li>-To recognise that photos can be changed</li> </ul>	<p><b>Programming A - Robot algorithms -</b></p> <ul style="list-style-type: none"> <li>-To describe a series of instructions as a sequence</li> <li>- Can we change the order of instructions?</li> <li>-Use logical reasoning to predict the outcome</li> <li>-Programming projects can have code and artwork</li> <li>-To design an algorithm</li> <li>-To create and debug a program that I have written</li> </ul> <p><b>Data and information - Pictograms -</b></p> <ul style="list-style-type: none"> <li>-We can count and compare objects using tally charts</li> <li>- Objects can be represented as pictures</li> <li>-To create a pictogram</li> <li>-To select objects by attribute and make comparisons</li> <li>-People can be described by attributes</li> <li>-We can present information using a computer</li> </ul>	<p><b>Creating media - Digital music</b></p> <ul style="list-style-type: none"> <li>-To say how music can make us feel</li> <li>-To identify that there are patterns in music</li> <li>-To experiment with sound using a computer</li> <li>-To use a computer to create a musical pattern</li> <li>-To create music for a purpose</li> <li>-To review and refine our computer work</li> </ul> <p><b>Programming B - Programming quizzes</b></p> <ul style="list-style-type: none"> <li>-A sequence of commands has a start</li> <li>-A sequence of commands has an outcome</li> <li>-To create a program using a given design</li> <li>-To change a given design</li> <li>-To create a program using my own design</li> <li>-To decide how my project can be improved</li> </ul>

3	<p><b>Computing systems and networks - Connecting computers</b></p> <ul style="list-style-type: none"> <li>-To explain how digital devices function</li> <li>-To identify input and output devices</li> <li>-How digital devices can change the way we work</li> <li>-Computer networks can be used to share information</li> <li>-To explore how digital devices can be connected</li> <li>-To recognise the physical components of a network</li> </ul> <p><b>Creating media - Stop-frame animation</b></p> <ul style="list-style-type: none"> <li>-Animation is a sequence of drawings or photographs</li> <li>-Relate animated movement with a sequence of images</li> <li>-To plan an animation</li> <li>-To identify the need to work consistently and carefully</li> <li>-To review and improve an animation</li> <li>-Impact of adding other media to an animation</li> </ul>	<p><b>Programming A - Sequencing sounds</b></p> <ul style="list-style-type: none"> <li>-To explore a new programming environment</li> <li>-To identify that commands have an outcome</li> <li>-To explain that a program has a start</li> <li>-A sequence of commands can have an order</li> <li>-To change the appearance of my project</li> <li>-To create a project from a task description</li> </ul> <p><b>Data and information - Branching databases</b></p> <ul style="list-style-type: none"> <li>-To create questions with yes/no answers</li> <li>-To identify the attributes needed to collect data</li> <li>-To create a branching database</li> <li>-Why it is helpful for a database to be well structured</li> <li>-To plan the structure of a branching database</li> <li>-To independently create an identification tool</li> </ul>	<p><b>Creating media - Desktop publishing</b></p> <ul style="list-style-type: none"> <li>-To recognise how text and images convey information</li> <li>-To recognise that text and layout can be edited</li> <li>-To choose appropriate page settings</li> <li>-To add content to a desktop publishing publication</li> <li>-How different layouts can suit different purposes</li> <li>-To consider the benefits of desktop publishing</li> </ul> <p><b>Programming B - Events and actions in programs</b></p> <ul style="list-style-type: none"> <li>-To explain how a sprite moves in an existing project</li> <li>-To create a program to move a sprite in four directions</li> <li>-To adapt a program to a new context</li> <li>-To develop my program by adding features</li> <li>-To identify and fix bugs in a program</li> <li>-To design and create a maze-based challenge</li> </ul>
4	<p><b>Computing systems and networks - The Internet</b></p> <ul style="list-style-type: none"> <li>-How networks physically connect to other networks</li> <li>-How networked devices make up the internet</li> <li>-How websites can be shared via the World Wide Web</li> <li>-How content can be added and accessed on the Web</li> <li>-How the content of the WWW is created by people</li> <li>-To evaluate the consequences of unreliable content</li> </ul> <p><b>Creating media - Audio production</b></p> <ul style="list-style-type: none"> <li>-To identify that sound can be recorded</li> <li>-To explain that audio recordings can be edited</li> <li>-Different parts of creating a podcast project</li> <li>-To apply audio editing skills independently</li> <li>-To combine audio to enhance my podcast project</li> <li>-To evaluate the effective use of audio</li> </ul>	<p><b>Programming A - Repetition in shapes</b></p> <ul style="list-style-type: none"> <li>-To identify that accuracy in programming is important</li> <li>-To create a program in a text-based language</li> <li>-To explain what 'repeat' means</li> <li>-To modify a count-controlled loop</li> <li>-To decompose a task into small steps</li> <li>-To create a program that uses count-controlled loops</li> </ul> <p><b>Data and information - Data logging</b></p> <ul style="list-style-type: none"> <li>-Data over time can be used to answer questions</li> <li>-To use a digital device to collect data automatically</li> <li>-To explain that a data logger collects 'data points'</li> <li>-To recognise how a computer can help us analyse data</li> <li>-To identify the data needed to answer questions</li> <li>-To use data from sensors to answer questions</li> </ul>	<p><b>Creating media - Photo editing</b></p> <ul style="list-style-type: none"> <li>-Composition of digital images can be changed</li> <li>-To explain that colours can be changed in digital images</li> <li>-To explain how cloning can be used in photo editing</li> <li>-To explain that images can be combined</li> <li>-To combine images for a purpose</li> <li>-To evaluate how changes can improve an image</li> </ul> <p><b>Programming B - Repetition in games</b></p> <ul style="list-style-type: none"> <li>-To develop the use of count-controlled loops</li> <li>-Programming infinite loops and count controlled loops</li> <li>-Include two or more loops which run at the same time</li> <li>-To modify an infinite loop in a given program</li> <li>-To design a project that includes repetition</li> <li>-To create a project that includes repetition</li> </ul>

<p>5</p>	<p><b>Computing systems and networks - Systems and searching</b></p> <ul style="list-style-type: none"> <li>-Computers can be connected together to form systems</li> <li>-To recognise the role of computer systems in our lives</li> <li>-To experiment with search engines</li> <li>-To describe how search engines select results</li> <li>-To explain how search results are ranked</li> <li>-Why the order of results is important, and to whom</li> </ul> <p><b>Creating media - Video production</b></p> <ul style="list-style-type: none"> <li>-To explain what makes a video effective</li> <li>-To identify digital devices that can record video</li> <li>-To capture video using a range of techniques</li> <li>-To create a storyboard</li> <li>-Video can be improved through reshooting and editing</li> <li>-Choices made when making and sharing a video</li> </ul>	<p><b>Computing systems and networks - Systems and searching</b></p> <ul style="list-style-type: none"> <li>-Computers can be connected together to form systems</li> <li>-To recognise the role of computer systems in our lives</li> <li>-To experiment with search engines</li> <li>-To describe how search engines select results</li> <li>-To explain how search results are ranked</li> <li>-Why the order of results is important, and to whom</li> </ul> <p><b>Creating media - Video production</b></p> <ul style="list-style-type: none"> <li>-To explain what makes a video effective</li> <li>-To identify digital devices that can record video</li> <li>-To capture video using a range of techniques</li> <li>-To create a storyboard</li> <li>-Video can be improved through reshooting and editing</li> <li>-Choices made when making and sharing a video</li> </ul>	<p><b>Creating media - Introduction to vector graphics</b></p> <ul style="list-style-type: none"> <li>-Drawing tools used to produce different outcomes</li> <li>-To create a vector drawing by combining shapes</li> <li>-To use tools to achieve a desired effect</li> <li>-To recognise that vector drawings consist of layers</li> <li>-To group objects to make them easier to work with</li> <li>-To apply what I have learned about vector drawings</li> </ul> <p><b>Programming B - Selection in quizzes</b></p> <ul style="list-style-type: none"> <li>-To explain how selection is used in computer programs</li> <li>-Conditional statements connect a condition to an outcome</li> <li>-To explain how selection directs the flow of a program</li> <li>-To design a program which uses selection</li> <li>-To create a program which uses selection</li> <li>-To evaluate my program</li> </ul>
<p>6</p>	<p><b>Computing systems and networks - Communication and collaboration</b></p> <ul style="list-style-type: none"> <li>-To explain the importance of internet addresses</li> <li>-How is data transferred across the internet</li> <li>-Sharing information online can help us to work together</li> <li>-To evaluate different ways of working together online</li> <li>-To recognise how we communicate using technology</li> <li>-To evaluate different methods of online communication</li> </ul> <p><b>Creating media - Web page creation</b></p> <ul style="list-style-type: none"> <li>-Review an existing website and consider its structure</li> <li>-To plan the features of a web page</li> <li>-To consider the ownership and use of images</li> <li>-To recognise the need to preview pages</li> <li>-To outline the need for a navigation path</li> <li>-implications of linking to content owned by other people</li> </ul>	<p><b>Programming A - Variables in games</b></p> <ul style="list-style-type: none"> <li>-To define a 'variable' as something that is changeable</li> <li>-To explain why a variable is used in a program</li> <li>-To choose how to improve a game by using variables</li> <li>-To design a project that builds on a given example</li> <li>-To use my design to create a project</li> <li>-To evaluate my project</li> </ul> <p><b>Data and information - Spreadsheets</b></p> <ul style="list-style-type: none"> <li>-To create a data set in a spreadsheet</li> <li>-To build a data set in a spreadsheet</li> <li>-To explain that formulas can be used to produce calculated data</li> <li>-To apply formulas to data</li> <li>-To create a spreadsheet to plan an event</li> <li>-To choose suitable ways to present data</li> </ul>	<p><b>Creating media - 3D Modelling</b></p> <ul style="list-style-type: none"> <li>-You can work in three dimensions on a computer</li> <li>-To identify that digital 3D objects can be modified</li> <li>-Objects can be combined in a 3D model</li> <li>-To create a 3D model for a given purpose</li> <li>-To plan my own 3D model</li> <li>-To create my own digital 3D model</li> </ul> <p><b>Programming B - Sensing movement</b></p> <ul style="list-style-type: none"> <li>-To create a program to run on a controllable device</li> <li>-Selection can control the flow of a program</li> <li>-To update a variable with a user input</li> <li>-Conditional statement to compare a variable to a value</li> <li>-Project that uses inputs and outputs on a device</li> <li>-Program to use inputs and outputs on a device</li> </ul>

