



## **Computing Curriculum**

At Chagford Primary School, we believe in giving children the skills needed for the 21<sup>st</sup> Century – computing is a key component of this. Our curriculum is designed to give our learners the skills and knowledge needed to access computing technology.

Technology is changing the lives of everyone; many of the jobs and careers that our children will undertake have not yet been invented. Through teaching computing, we equip children to participate in a rapidly changing world where work and leisure activities are increasingly transformed by technology.

It is our intention to inspire and enable children to find, explore, analyse, exchange and present information both purposefully and with clarity. We also focus on developing the skills necessary for children to be able to be discerning consumers and creators of information in all of its forms and to do so with confidence and security.

Computational thinking is a major factor in enabling children to be confident, creative and independent learners and it is our intention that children have every opportunity available to allow them to develop and personalise this skill in all curriculum areas.

The computing curriculum is designed to build upon knowledge and skills with technology with a strong thread of online safety.

**Programme of study**

EYFS			
Subject	Knowledge	Skills	Key Vocabulary
	<p>Children know that technology can be used for a range of purposes at home and school</p> <p>Children can name a range of technology devices and uses (<i>e.g. 'You use your computer to take the register and it sends it to Mrs Chapman so she can see it on her computer'</i>)</p> <p>Children know that information can be retrieved from technology</p>	<p>Children can use technology to complete simple games and programs</p> <p>Children can use technology to retrieve simple information (<i>e.g. Using voice control to find pictures of animals</i>)</p> <p>Children can express their ideas using technology (<i>e.g. using drawing programs</i>)</p> <p>Children can explain uses of technology at home and school</p>	<p><b>Device</b></p> <p><b>Technology</b></p> <p><b>Computer</b></p> <p><b>Information</b></p>

Year 1			
Subject	Knowledge	Skills	Key Vocabulary
<p>Understanding algorithms and e-safety</p> <p>Create and de-bug simple programmes and e-safety</p> <p>Digital literacy and e-safety</p>	<p>Children know that an algorithm is a set of instructions</p> <p>Children understand that devices follow algorithms precisely and unambiguously</p> <p>Children know how to create a simple algorithm</p> <p>Children know that a program is a set of instructions that execute a task</p> <p>Children know that a program is created by a set of algorithms</p> <p>Children know how to create digital content (<i>e.g. word processing documents</i>)</p> <p>Children know how to save digital content</p> <p>Children know how to retrieve digital content</p> <p>Children know what personal information is</p> <p>Children know that they should not share personal information online (including photos)</p> <p>Children can recognise online threats to their safety</p> <p>Children know where to seek help with online safety</p>	<p>Children can create a simple algorithm</p> <p>Children can test a simple algorithm</p> <p>Children can de-bug a simple algorithm</p> <p>Children can create a simple program</p> <p>Children can test a simple program</p> <p>Children can de-bug a simple program</p> <p>Children can create digital content</p> <p>Children can save digital content</p> <p>Children can retrieve digital content</p> <p>Children can use online safety tools</p> <p>Children use a computer programme to create art</p>	<p><b>Algorithm</b></p> <p><b>Program</b></p> <p><b>Bug</b></p> <p><b>De-bug</b></p> <p><b>Digital</b></p> <p><b>Digital content</b></p> <p><b>e-safety</b></p> <p><b>online safety</b></p>

Year 2			
Subject	Knowledge	Skills	Key Vocabulary
<p>Logical reasoning and e-safety</p> <p>Digital literacy beyond school and e-safety</p> <p>Digital content and e-safety</p>	<p>Children know that technological devices are unambiguously and precisely logical</p> <p>Children know that programs are defined by algorithms and will follow them logically</p> <p>Children know how to use a range of programs at home and school</p> <p>Children can create digital content beyond school (<i>e.g. creating posters using digital photos, publishing programs</i>)</p> <p>Children know how to organise digital content using folders and sub folders</p> <p>Children know how to manipulate digital content</p> <p>Children know common methods of stealing personal information</p> <p>Children know what safe online groups look like</p>	<p>Children can predict the behavior of a program using logical reasoning</p> <p>Children can create digital content using a range of programs</p> <p>Children can create digital content outside of the school environment</p> <p>Children can organise digital content in folders and sub folders</p> <p>Children can manipulate digital content</p> <p>Children can spot unsafe content</p> <p>Children can use a program to create music</p> <p>Children can use a program to create and manipulate photos</p>	<p><b>Logic</b></p> <p><b>Logical reasoning</b></p> <p><b>Folders</b></p>

Year 3			
Subject	Knowledge	Skills	Key Vocabulary
Connecting computers	Children understand how devices connect to one another	Children can connect a device to others	<b>Connections</b>  <b>Internet</b>  <b>Wireless</b>  <b>Data</b>  <b>Graphics</b>
Graphics and presentations including research and e-safety	Children understand the benefits and functions of connected devices	Children can create graphics and animations using technology	
Sequencing in music	Children know how to use graphic programs	Children can design a program to complete a given task	
Building databases	Children know how to create an animation	Children can create a program to complete a given task	
Desktop publishing	Children know how to design simple programs	Children can de-bug a simple program to complete a given task	
	Children know how to create simple programs	Children can store, sort and retrieve data	
	Children know how to de-bug simple programs	Children can present information using programs	
	Children understand the use of data storing and sorting programmes		
	Children know how to use programs to create a document		

Year 4			
Subject	Knowledge	Skills	Key Vocabulary
<p>Working with Data and e-safety</p> <p>Networks and communications and e-safety</p> <p>Audio editing</p>	<p>Children know how to organise data on digital programs (<i>e.g. spreadsheets</i>)</p> <p>Children use data stored digitally to create charts and graphs</p> <p>Children understand computer networks such as the internet</p> <p>Children know that technology can be used to communicate instantly with people around the world</p> <p>Children know how to be safe when communicating via digital technology (<i>acceptable use</i>)</p> <p>Children know how digital data can be manipulated to mislead readers</p> <p>Children know they have a responsibility to act respectfully online.</p> <p>Children know how to use digital devices to record audio</p> <p>Children know how to edit audio in digital files</p> <p>Children understand the use of digital devices for photos</p>	<p>Children can organise data and retrieve information from digital data sources</p> <p>Children can represent data</p> <p>Children can use networks to communicate with others</p> <p>Children can identify unsafe uses of computer networks</p> <p>Children can record and edit audio using digital devices.</p> <p>Children can create and edit photos using digital devices</p>	<p><b>Data sources</b></p> <p><b>Communications networks</b></p>

Year 5			
Subject	Knowledge	Skills	Key Vocabulary
Video editing	Children know how to use programs to enhance presentations	Children can create presentations using programs to enhance	<b>Collaborative working</b>  <b>Databases</b>  <b>Coding</b>
Databases	Children know how communication networks can be used to work collaboratively	Children can work collaboratively on a single piece of content	
Selection	Children know how to correct algorithms in their programs	Children can identify when images have been manipulated	
	Children know how collaborative working can be manipulated positively and negatively	Children can explain how algorithms work	
	Children understand the role of technology and digital devices in the creation of video	Children can create and edit video	
	Children understand the purposes and functions of databases	Children can create, sort and retrieve data from a data base	
	Children understand binary coding and how this enables selection for a variety of purposes	Children use selection for a variety of purposes	

Year 6			
Subject	Knowledge	Skills	Key Vocabulary
Communications	Children know how to safely communicate using technology and devices	Children can use the internet to safely search for content	<b>Search ranking</b>
Websites	Children know how to use the internet safely to search for content	Children can create a basic website	<b>Functions</b>
Spreadsheets		Children can use a variable to affect a program	<b>Modelling</b>
Variables	Children understand how search results are ranked	Children can use spreadsheets to organise and retrieve data	<b>Sensing</b>
Modelling	Children recognise the features of a website and how to use these for various functions	Children can create 3D models using technology	<b>Variables</b>
Sensing	Children understand the use of a variable in programming		
	Children understand the function and purpose of spreadsheets	Children can use lasers and other sensing tools to affect a program.	
	Children understand the use of 3D modelling		
	Children understand the use of laser and other sensing tools in technology		