

Curriculum Overview: Computing/ICT

'Man is still the most extraordinary computer of all!' JF Kennedy

Our children live in an ever-changing, rapidly advancing world where new knowledge and new skills need to be acquired, understood and mastered at a rate previously unheard of.

We aim to enable children to learn the full range of knowledge, skills and understanding in order to appreciate their world as well as recognising and embracing their role in becoming citizens who make a positive contribution to our society; now and in the future.

Our community and its environment help shape the way in which we structure learning opportunities. We balance the celebration of all positive aspects of our local context with the ability to look beyond the Furness Peninsula in order to understand and embrace the wider world.

We are totally committed to learning of the highest standard in academic, personal and social forms and have these aspirations for all children in our care.

Our Computing Curriculum draws on The National Curriculum in England. Topics are organised over a two year rolling programme and is taught as a discrete subject as well as being incorporated in teaching across the curriculum, with some skills revisited in all year groups with progression focused on advancing skills across the phases rather than by year group. This reflects the varied starting point children have in terms of their digital literacy.

Computing and logical thinking will be embedded across the curriculum using the knowledge and skills of our staff who have a passion for a positive future and children who are willing and excited to learn. In doing so, we will engage, inspire and challenge our children to have an interest in computing and ICT to encourage further study of this subject and create digital citizens within the local and global community. Children at George Romney will be fully aware of how to embrace and utilise technology in a safe and responsible manner.

Our curriculum is...

real-life
and
relevant

progressive
and
sequenced

broad
and
balanced

local,
national &
international

So our learners are...

excited
and
inspired

co-operative
and
collaborative

confident
and
proud

independent
and strong

Planning Progression:

<p>Y3/Y4 e-Safety</p>	<p><i>To use technology safely, respectfully and responsibly</i> <i>To recognise acceptable/unacceptable behaviour</i> <i>To identify a range of ways to report concerns about content and contact</i> <i>To follow the school's safer internet rules</i> <i>To recognise that cyber bullying is unacceptable and will be sanctioned in line with the school's policy</i> <i>To know how to report an incident of cyber bullying</i></p>
<p>Office Skills- Link to PSHCE- It's Good to be Me.</p>	<p><i>To manipulate windows including viewing 2 windows at once</i> <i>To create and organise files and folders</i> <i>To search for files</i> <i>To print using specific options</i> <i>To use two hands for typing</i> <i>To save work in my folder</i> <i>To edit using undo</i> <i>To select and format text</i> <i>To align text left, centre, right or justified</i> <i>To insert a text box</i> <i>To format a text box</i></p>
<p>Creative Computing- Digital Art- Paint Portraits Link to PSHCE- It's Good to be Me.</p>	<p><i>To draw with different shapes and lines</i> <i>To choose the appropriate shape or line to draw</i> <i>To draw the intended shape or line</i> <i>To lay out objects effectively</i> <i>To lay out objects to the required format</i></p>
<p>Creative Computing- Animations</p>	<p><i>To explain what is meant by animation</i> <i>To explain how simple animation techniques work</i> <i>To explain how computer software has improved animation techniques</i> <i>To create series of linked frames</i> <i>To edit and refine still images to improve my animation</i> <i>To add a second figure and animate them interacting with each other</i> <i>To use animation recording to animate the movement of a character</i> <i>To animate the interaction between two characters</i></p>
<p>Programming- Scratch Quizzes</p>	<p><i>To identify the pros and cons of different types of questions</i> <i>To write a program using Scratch</i> <i>To identify errors and debug a program using Scratch</i> <i>To write a program using visual programming blocks</i> <i>To create a series of instructions using Scratch</i> <i>To use the duplicate function</i> <i>To use variables to change the backdrop in a quiz</i> <i>To write a program including a scoring system</i> <i>To demonstrate that I understand how a scoring system works</i> <i>To assign numerical values to a scoring system</i></p>
<p>Being Safe- Internet Research and Communication</p>	<p><i>To identify how word order affects search results</i> <i>To use different word orders when searching</i> <i>To identify which search provides the better results</i> <i>To explain some reasons why particular results are returned</i> <i>To save webpages and share them safely</i> <i>To identify the ways, and investigate how, we communicate online</i> <i>To explain who will be able to read my communication</i></p>

	<p>To know what to do when I receive a communication that makes me feel uncomfortable</p> <p>To explain why I must be kind and encouraging in my online communication</p> <p>To recognise my online activity leave a digital footprint</p>
Office Skills- PowerPoint	<p>To set the presentation theme</p> <p>To use slide transitions</p> <p>To use animations to introduce objects to a slide</p> <p>To complete slides so as to maintain the design and an effective layout</p> <p>I can edit as required to maintain the design and an effective layout</p>
Programming- Probots	<p>To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>To design, write and debug programs that accomplish specific goals</p>
Y5/Y6 e-Safety	<p>To understand the potential risk of providing personal information online</p> <p>To recognise the potential risks of using internet communication tools and understand how to minimise those risks</p> <p>To know that some messages may be malicious and know how to deal with this</p> <p>To understand that some malicious adults may use various techniques to make contact and elicit personal information</p> <p>To know that it is unsafe to arrange to meet unknown people online</p> <p>To know how to report any suspicions</p> <p>To understand I should not publish other people's pictures or tag them on the internet without permission</p> <p>To know that content put online is extremely difficult to remove</p> <p>To know what to do if I discover something malicious or inappropriate</p>
Office Skills- Publisher	<p>To build on skills- to use these across the curriculum to present work in effective and interesting ways</p>
Film Making	<p>To plan and write a script using appropriate software</p> <p>To structure the timing of sections to meet a given running time</p> <p>To use digital recording devices to film and import into video editing software</p> <p>To use a variety of camera angles and shots to record</p> <p>To import video files to video editing software.</p> <p>To arrange video files to form a complete film</p> <p>To add finishing touches including titles and credits, to complete a movie.</p> <p>To playback and present a finished movie.</p>
Office Skills- Webpage Design	<p>To comment on the layout and features of web pages</p> <p>To use advanced features of Google's web search</p> <p>To create a new webpage</p> <p>To create a layout for a new web page</p> <p>To add relevant text to a web page</p> <p>To insert and format relevant images</p> <p>To add hyperlinks into a web page- using text and images</p> <p>To share the web page so it can be viewed by others</p>
Programming- Scratch Games	<p>To draw a background using blocks to make a maze</p> <p>To select and change a character (Sprite)</p> <p>To program commands to control movement of the sprite.</p> <p>To program consequences for specific actions</p> <p>To use tools to draw my own sprite</p> <p>To use commands to change the backdrop</p> <p>To test and debug a program after making changes</p> <p>To add sounds as a consequence of an action</p> <p>To make two characters move in relation to each other</p> <p>To plan a sequence of instructions (an algorithm)</p>

	<p><i>To design new costumes for an existing sprite</i></p> <p><i>To design code that switches from one costume to another</i></p> <p><i>To create a variable (points scoring)</i></p> <p><i>To add relevant messages that are linked to a final value.</i></p>
<p>Creative Computing-Spreadsheets</p> <p>Linked to maths</p>	<p><i>To identify cells using rows and columns</i></p> <p><i>To type text and numbers into cells</i></p> <p><i>To use the SUM function to add numbers together</i></p> <p><i>To use the SUM function to perform other calculations</i></p> <p><i>To use the fill tool to copy formulas</i></p> <p><i>To insert a bar or column graph</i></p> <p><i>To format aspects of the column or bar graph</i></p> <p><i>To add extra data including rows and columns</i></p>
<p>Programming-Spike Prime</p>	<p><i>To design, write and debug programs that accomplish specific goals and challenges</i></p> <p><i>To use logical reasoning to explain how algorithms work and to detect and correct errors in algorithms and programs to accomplish goals and challenges</i></p>