<table>
<tr><th colspan="4">King's Court First School – Computing – KS1 and KS2</th></tr>
<tr><th>KS1 and KS2
Computing</th><th>Term 1- All About Us / Our Community</th><th>Term 2 – Culture</th><th>Term 3 – The Arts</th></tr>
<tr><td>Milestone 1</td><td>Chris Quigley:
To code
To connect
To communicate
To collect</td><td colspan="2">Control motion by specifying the number of steps to travel, direction and turn
Add text strings, show and hide objects and change the features of an object
Select sounds and controls when they are heard, their duration and volume
Control when drawings appear and set the pen colour, size and shape
Specify user inputs (such as clicks) to control events
Specify the nature of events (such as single loop event or loop)
Create conditions for actions by waiting for a user input (such as responses to questions like: What is your name?)
Participate in class social media accounts
Understand online risks and the age rules for sites
Use a range of applications and devices in order to communicate ideas, work and messages.
Use simple databases to record information in areas across the curriculum</td></tr>
<tr><td>Milestone 2</td><td>Chris Quigley:
To code
To connect
To communicate
To collect</td><td colspan="2">Use specified screen coordinates to control movement.
Set the appearance of objects and create sequences of change.
Create and edit sounds. Control when they are heard, their volume, duration and rests.
Control the shade of pens.
Specify conditions to trigger events.
Use IF THEN conditions to control events or objects.
Create conditions for actions by sensing proximity or by waiting or a user input (such as proximity to a specified colour or a line or responses to questions.)
Use variables to store a value.
Use the functions define, set, change, show and hide to control variables.
Use reporter operators (+ - * /) to perform calculations.
Contribute to blogs that are moderated by teachers
Give examples of the risks posed by online communication
Understand the term 'copyright'.
Understand that comments made online that are hurtful or offensive are the same as bullying.
Understand how online services work.
Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally.
Devise and construct databases using applications designed for this purpose in areas across the curriculum.</td></tr>
<tr><td>National Curriculum</td><td colspan="3">Key Stage 1
Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.
Create and debug simple programs
Use logical reasoning to predict the behaviour of simple programs.
Use technology purposefully to create, organise, store, manipulate and retrieve digital content
Recognise common uses of information technology beyond school
Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.
Key Stage 2
Design, write and debug programs that accomplish specific goals, including controlling or
simulating physical systems; solve problems by decomposing them into smaller parts.
Use sequence, selection and repetition in programs; work with variables and various forms of input
and output.
Use logical reasoning to explain how some simple algorithms work and to detect and correct errors
in algorithms and programs
Understand computer networks, including the Internet; how they can provide multiple services,
such as the World Wide Web; and the opportunities they offer for communication and
collaboration.
Use search technologies effectively, appreciate how results are selected and ranked, and be
discerning in evaluating digital content.
Select, use and combine a variety of software (including internet services) on a range of digital
devices to design and create a range of programs, systems and content that accomplish given
goals, including collecting, analysing, evaluating and presenting data and information.
Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour;
identify a range of ways to report concerns about content and contact.</td></tr>
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Year 1	**Online safety** • Discuss what the internet is and how it can be used • Recognise that the internet may affect mood or emotions • Recognise how internet use can affect and upset others	**Programming 2: Virtual Bee-Bot** • Recognise cause and effect when pressing buttons on a virtual Bee-Bot • Discuss and demonstrate how the virtual Bee-Bot works • Record video, ensuring everyone is in shot	**Algorithms unplugged** • Explain what an algorithm is • Write clear algorithms • Follow an algorithms	**Computing systems and networks: Improving mouse skills** • Use computers more purposefully • Log in and navigate around a computer • Drag, drop, click and control a cursor using a mouse	**Data handling: Introduction to data** • Represent animal-themed data in different ways, using objects nad technology • Log in and use mouse and keyboard skills to navigate the computer • Represent the same data as a pictogram and a table	**Creating media: Digital imagery** • Plan a pictorial story using photographic images in sequence • Explain how to take clear photos • Take photos using a device
Year 2	**Online safety** • Explain what is meant by online information • Recognise what information is safe to be shared online • Explain why we need passwords and want makes a strong password	**Programming: Algorithms and debugging** • Decompose a game to predict the algorithms • Give a definition for 'decomposition' • Write clear and precise algorithms	**Scratch Jr** • Explore a new application independently • Explain what the blocks on Scratch Jr so and use them for a purpose • Recognise a loop in coding and why it is useful	**Computing systems and networks: What is a computer?** • Name some computer peripherals and their functions • Recognise that buttons cause effects • Explain that technology follows instructions	**Data handling: International Space Station** • Describe and explain how astronauts' survival needs are met aboard the ISS • Identify and digitally draw items which fulfil basic human needs when aboard the ISS • Read the correct temperature on a thermometer	**Stop motion: Using tablets** • Create a flip book animation • Decompose a story into smaller parts to plan a stop motion
Year 3	Online safety • Differentiate between fact, opinion and belief online • Explain how to deal with upsetting online content • Recognise that digital devices communicate with each other to share personal information	**Computer systems and networks** • Recognise that a network is two or more devices connected and its purpose • Identify key components that make up the school's network • Explain the different between wired and wireless connections	**Scratch** • Identify Scratch as a coding application and explore its different code blocks • Make predictions about what code blocks will do and test these ideas • Create a simple animation by combining motion, speech and wait blocks	**Google: Computing systems and networks 2 Emailing** • Log in and out of email • Send a simple email with a subject • Edit an email	**Data handling: Comparison cards databases** • Explain what is meant by field, record and data • Compare paper and computerised databases • Put values into a spreadsheet	**Video trailers** • Describe the purpose of a trailer • Create a storyboard for a book
Year 4	**Online safety** • Describe how to search over multiple platforms and be aware of the accuracy of the results • Describe the method	**Google: Computer systems** • Understand the need to be thoughtful when working on a document • Use comments to suggest changes • Use a variety of information	**Programming 2: Further coding with Scratch** • Identify how variables and if statements are used • Explain what a variable is • Create a variable	**Computational thinking** • Understand that problems can be solved more easily • Recognise decomposition • Explain decomposition	**Data handling: Investigating weather** • Search the web • Design a weather station • Design a machine	**Google: Creating media** • Use tabs • Make a plan
Knowledge maps	Online safety	Programming option 2 – Virtual Bee-Bot Programming: Algorithms and debugging Computer systems networks	Algorithms unplugged Scratch Jr Programming 1	Computing systems	Data handling	Creating media Stop motion
Breadth of study	Computer science Information technology Digital literacy	Computer science Information technology Digital literacy	Computer science Information technology Digital literacy	Computer science Information technology Digital literacy	Computer science Information technology Digital literacy	Computer science Information technology Digital literacy
Continuous provisions	Children with SEND using the laptops to access the curriculum I Pads through all curriculum subjects Links with digital media and animations					
Deliberate choices	Children have experience with key transferrable skills such as touch-typing and sending emails. Children are taught the key vocabulary in each lesson, given extension activities to build on their skills in that lesson to consolidate their understanding further.					