



St Benedict's CofE VA Junior School – Whole School Computing Long Term Planning Units and National Curriculum Objectives

Year Group	Autumn	Spring	Summer
Year 3	<p>Computing systems and networks 3.1 Connecting computers Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</p>	<p>Creating Media 3.2 Stop-frame animation Capturing and editing digital still images to produce a stop-frame animation that tells a story. (using USB camera)</p> <p><i>Cross-curricular link –history – Ancient Egyptians</i></p>	<p>Programming A 3.3 Sequencing sounds Creating sequences in a block-based programming language (Scratch) to make music.</p> <p><i>Cross-curricular link - Music</i></p>
	<p>ActiveBYTE “I am Kind and Responsible” Agreement/Kindness</p> <ul style="list-style-type: none"> • I contribute to shared rules and use them to make good choices when I use technology • I use the safety features of apps, games and websites as well as reporting concerns to a trusted adult 	<p>ActiveBYTE “I am Safe and Secure” Privacy</p> <ul style="list-style-type: none"> • I use a secure password and explain why they are important • I protect my personal information when I do different things online 	<p>ActiveBYTE “I am Healthy” Lifestyle Choices</p> <ul style="list-style-type: none"> • I identify images which have been digitally altered • I identify adverts online, including those within Google searches
	<p>Data and Information 3.4 Branching Databases Building and using branching databases to group objects using yes/no questions.</p>	<p>Creating Media 3.5 Desktop Publishing Creating documents by modifying text, images, and page layouts for a specified purpose.</p>	<p>Programming B 3.6 Events and Actions Writing algorithms and programs that use a range of events to trigger sequences of actions. (Scratch)</p>
	<p>ActiveBYTE “I am Kind and Responsible” Kindness/Evaluating Content/Reporting & Supporting</p> <ul style="list-style-type: none"> • I describe the ways that people get bullied when they use different technologies and consider what I post I think about whether I can use images that I find online in my own work • I use search tools to find appropriate information and decide whether I can trust it 	<p>ActiveBYTE “I am Safe and Secure” Privacy/Relationships</p> <ul style="list-style-type: none"> • I participate safely and responsibly in a secure online community • I ask a trusted adult before downloading files and games from the Internet 	<p>ActiveBYTE “I am Healthy” Age-appropriate/Lifestyle Choices</p> <ul style="list-style-type: none"> • I use age appropriate apps, games and websites from a list I have agreed with others • I make good choices about when and why I use devices

Year 4	<p>Computing systems and networks</p> <p>4.1 The Internet</p> <p>Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.</p>	<p>Data and Information</p> <p>4.4 Data Logging</p> <p>Recognising how and why data is collected over time, before using data loggers to carry out an investigation.</p> <p><i>Cross-curricular link - Science – States of matter – evaporation</i></p>	<p>Programming B</p> <p>4.6 Repetition in games</p> <p>Using a block-based programming language (Scratch) to explore count-controlled and infinite loops when creating a game.</p>
	<p>ActiveBYTE “I am Kind and Responsible” Agreement</p> <ul style="list-style-type: none"> • I contribute to shared rules and use them to make good choices when I use technology • I use a range of strategies to protect myself and my friends from harm online, including reporting concerns to a trusted adult • I comment positively and respectfully when I use different technologies 	<p>ActiveBYTE “I am Safe and Secure” Privacy/Relationships</p> <ul style="list-style-type: none"> • I know that anything I share online will stay there to be seen and used by others • I make safe choices when using technology to communicate responsibly with others 	<p>ActiveBYTE “I am Healthy” Self-image / Lifestyle Choices</p> <ul style="list-style-type: none"> • I explain how digitally altered images in the media make me feel • I ignore or close adverts that appear on my device and explain my reasons
	<p>Creating Media</p> <p>4.2 Audio Editing</p> <p>Capturing and editing audio to produce a podcast, ensuring that copyright is considered.</p> <p><i>Cross-curricular link - English - Pod casts about “The Whale”</i></p>	<p>Programming A</p> <p>4.3 Repetition in shapes</p> <p>Using a text-based programming language (Turtle Playground) to explore count-controlled loops when drawing shapes.</p>	<p>Creating Media</p> <p>4.5 Photo editing</p> <p>Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.</p> <p><i>Cross-curricular link - Science – Living Things and Habitats -create a new minibeast</i></p>
	<p>ActiveBYTE “I am Kind and Responsible” Evaluating Content</p> <ul style="list-style-type: none"> • I identify key words to use when searching safely online and think about the reliability of information I find • I explain how to check who owns photos, text and clipart 	<p>ActiveBYTE “I am Safe and Secure” Protecting Devices</p> <ul style="list-style-type: none"> • I explain why I need to ask a trusted adult before downloading files and games from the internet 	<p>ActiveBYTE “I am Healthy” Age Appropriate/ Lifestyle Choices</p> <ul style="list-style-type: none"> • I choose apps, games and websites that are appropriate for my age and explain my reasons to friends • I tell my friends about the sensible choices I make about when and why I use device

Year 5	Computing systems and networks 5.1 Sharing Information Identifying and exploring how information is shared between digital systems.	Creating Media 5.2 Video editing Planning, capturing, and editing video to produce a short film.	Programming B 5.6 Selection in quizzes Exploring selection in programming to design and code an interactive quiz. (Scratch)
	ActiveBYTE “I am Kind and Responsible” Evaluating Content <ul style="list-style-type: none"> • I use a search engine to find and evaluate different types of information • I contribute to shared rules and use them to support myself and others when we use technology 	ActiveBYTE “I am Safe and Secure” Privacy <ul style="list-style-type: none"> • I explain the risks of sharing too much about myself online • I use a secure password and safe screen name when I am using an online tool 	ActiveBYTE “I am Healthy” Self Image <ul style="list-style-type: none"> • I know the reasons why images are altered • I recognise that online friendships affect my feelings
	Programming A 5.3 Selection in physical computing Exploring conditions and selection using a programmable microcontroller.(Crumble)	Data and Information 5.4 Flat-file databases Using a database to order data and create charts to answer questions.	Creating Media 5.5 Vector drawing Creating images in a drawing program by using layers and groups of objects.
	ActiveBYTE “I am Kind and Responsible” Kindness <ul style="list-style-type: none"> • I always communicate kindly and respectfully and can describe the impact where this does not happen • I contribute to shared rules and use them to support myself and others when we use technology • I explain why I need to protect myself and my friends and the best ways to do this, including reporting concerns to a trusted adult 	ActiveBYTE “I am Safe and Secure” Relationships <ul style="list-style-type: none"> • I compare my online and face-to-face relationships 	ActiveBYTE “I am Healthy” Lifestyle Choices <ul style="list-style-type: none"> • I identify the intended audience for an advert • I evaluate my own and others’ choices when using games and devices

Year 6	<p>Creating media</p> <p>6.5 3D modelling Planning, developing, and evaluating 3D computer models of physical objects.</p>	<p>Creating media</p> <p>6.2 Web page creation Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.</p> <p><i>Cross-curricular link – favourite authors</i></p>	<p>Programming A</p> <p>6.3 Variables in games Exploring variables when designing and coding a game. (Scratch)</p>
	<p>ActiveBYTE “I am Kind and Responsible” Reporting/Supporting</p> <ul style="list-style-type: none"> • I support my friends to protect themselves and make good choices online, including reporting concerns to a trusted adult • I contribute to shared rules and use them to support myself and others when we use technology • I talk about the way search results are selected and ranked and check the reliability of websites I visit 	<p>ActiveBYTE “I am Safe and Secure” Privacy</p> <ul style="list-style-type: none"> • I consider terms and conditions and adjust privacy settings to maintain control of my personal information • I check the information about me online and know that some of it can be uploaded by others 	<p>ActiveBYTE “I am Healthy” Self Image</p> <ul style="list-style-type: none"> • I explain how images in the media affect how we feel about ourselves • I explain how my data is used to target adverts towards me
	<p>Computing systems and networks</p> <p>6.1 Internet communication Recognising how the WWW can be used to communicate and be searched to find information.</p>	<p>Data and information</p> <p>6.4 Introduction to Spreadsheets Answering questions by using spreadsheets to organise and calculate data.</p> <p><i>Cross-curricular link - maths</i></p>	<p>Programming B</p> <p>6.6 Sensing Designing and coding a project that captures inputs from a physical device. (Micro:bit)</p>
	<p>ActiveBYTE “I am Kind and Responsible” Kindness</p> <ul style="list-style-type: none"> • I always communicate kindly and respectfully and work with others to help everyone enjoy their use of technology 	<p>ActiveBYTE “I am Safe and Secure” Relationships</p> <ul style="list-style-type: none"> • I explain how to communicate safely and responsibly with people I only know online 	<p>ActiveBYTE “I am Healthy” Lifestyle Choices</p> <ul style="list-style-type: none"> • I support my friends in evaluating their use of games and devices and make good choices for myself

****KEY
SUBJECT
SKILLS TO BE
DELIVERED
THROUGHOUT
THE YEAR BY
ALL KS2 YEAR
GROUPS:**

- 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

Online Safety

- I am Kind and Responsible
- I am Safe and Secure
- I am Healthy