

YEAR 6

6.1 - Creating Formula

Computing Area	Information Communication Technology
National Curriculum Strands	<ul style="list-style-type: none"> • 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
Skills Progression Points	<ul style="list-style-type: none"> • Enter and organise data appropriately • Use the 'Formula' method to make calculations • Interpret and present the data they collect. • Use the skills developed to interrogate a spreadsheet
Hardware	Laptops/Desktop PC/iPads
Software/App	MS Excel/Google Sheets/Numbers
Unit Objective	To understand how to organise, calculate and present data within a spreadsheet so that calculations can be made for different purposes.
Unit Vocabulary	Cell, Column, Row, Formulae, Graph, Chart Spreadsheet, Cell Reference, Grid, Tab, Workbook, Merge, Auto Sum

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6.2 - Python Introduction

Computing Area	Computer Science
National Curriculum Strands	<ul style="list-style-type: none"> • 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
Skills Progression Points	<ul style="list-style-type: none"> • Understand the importance of planning, testing and correcting algorithms. • Demonstrate a range of different strategies to solve a problem including: abstraction, decomposition, logic & evaluation. • Understand why sequence & patterns are important when creating simple algorithms that are part of a more complex program. • Gives reasoning for each step within algorithms and applying them to a program. • Use a variable to increase programming possibilities. • Use a variable and relational operators (e.g. < = >) within a loop to stop a program. • Evaluate the effectiveness and efficiency of an algorithm while continually testing the programming. • Use logical reasoning to predict and debug more complex programs including: selection, variables and operators.
Hardware	Laptops/Desktop PC/iPads
Software/App	Edublocks website
Unit Objective	To compare block based programming to written code. To introduce Python as a text based method of programming
Unit Vocabulary	Sequence, Selection, Iteration, Loop, Variable, Conditional Statement, RGB values, Function

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6.3 - Programming a Game

Computing Area	Computer Science
National Curriculum Strands	<ul style="list-style-type: none"> • 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
Skills Progression Points	<ul style="list-style-type: none"> • Understand the importance of planning, testing and correcting algorithms. • Demonstrate a range of different strategies to solve a problem including: abstraction, decomposition, logic & evaluation. • Understand why sequence & patterns are important when creating simple algorithms that are part of a more complex program. • Gives reasoning for each step within algorithms and applying them to a program. • Use a variable to increase programming possibilities. • Use variable and relational operators (e.g. < = >) within a loop to stop a program. • Evaluate the effectiveness and efficiency of an algorithm while continually testing the programming. • Use logical reasoning to predict and debug more complex programs e.g. selection, variables and operators.
Hardware	Laptops/Desktop PC / iPads (PCs or Laptops preferable)
Software/App	Scratch 3.0
Unit Objective	To create an interactive, playable game using conditionals, variables and operators.
Unit Vocabulary	Algorithm, abstraction, decomposition, logic, sequence, variable, input, output, debug, operators, loops

YEAR 6

6.4 - Creating a Podcast

Computing Area	Information Technology
National Curriculum Strands	<ul style="list-style-type: none"> • 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
Skills Progression Points	<ul style="list-style-type: none"> • To use a variety of familiar and unfamiliar software by using their existing skills • Select, use and combine appropriate technology tools to create effects in media • Evaluate and improve your own work and support others.
Hardware	iPads (preferable) or Laptops/Desktop PC – microphones if not using iPads
Software/App	iMovie (iPads) Audacity (PC)
Unit Objective	To produce a podcast based on a piece of writing from another curriculum area or aspect of school life.
Unit Vocabulary	Podcast, record, sound, audio, edit, refine

YEAR 6

6.5 - Creating a Website Using HTML

Computing Area	Information Communication Technology
National Curriculum Strands	<ul style="list-style-type: none"> • 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
Skills Progression Points	<ul style="list-style-type: none"> • To identify features of websites and their purposes • To understand how html is used to code websites • To create a basic website outline using html • To design the site structure and page navigation for a basic website • To source the information needed for their website
Hardware	Laptops/Desktop PC
Software/App	BBC Bitesize, Trinket, Google Sites
Unit Objective	To design a multi-page informational website, considering the layout, user experience and key features including home page, links and images.
Unit Vocabulary	Html, headings, text, images, layout, website, source code

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6.6 - Social Media & Being Safe Online

Computing Area	Information Technology & Digital Literacy
National Curriculum Strands	<ul style="list-style-type: none"> • 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 • Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact
Skills Progression Points	<ul style="list-style-type: none"> • Explain Internet services they need to use for different purposes. • Manage their conduct and contact appropriately and safely when using technology and online services. • Be digital Discerning When evaluating the effectiveness of their own work and the work of others. • Combine a range of media, recognising the contribution of each to achieve a particular outcome. • Use a range of strategies to increase the accuracy of keyword searches. Makes confident inferences about their effectiveness.
Hardware	Laptops/Desktop PC, iPad
Software/App	iMovie, Google Slides/ Powerpoint, Canva
Unit Objective	To understand the purpose and different aspects of social media and how to use it safely.
Unit Vocabulary	Social media, PEGI, Networks, In-app, permissions, ratings, Forum,