



St Laurence's CE Primary School

Computing

Long Term Plan

Year 6



Autumn 1 Coding	Autumn 2 E Safety	Spring 1 Spreadsheets	Spring 2 UNIT TITLE	Summer 1 Quizzing	Summer 2 Understanding Binary
<u>Key Content & Skills</u> Children can plan a program which includes a timer and a score. Children can follow their plans to create a program. Children can debug when things do not run as expected. Children can create a program that makes use of functions. Children can create a program that uses multiple functions with the code arranged in tabs. Children can explain how their code executes when their program is run.	<u>Key Content & Skills</u> To identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g., apps accessing location. • To identify secure sites by looking for privacy seals of approval, e.g., https, padlock icon. • To identify the benefits and risks of giving personal information and device access to different software. • To review the meaning of a digital footprint and understand how and why people use their information and online presence to create a virtual image of themselves as a user. • To have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour. • To begin to understand how information online can persist and give away details of those who share or modify it. • To understand the importance of balancing game and screen time with other parts of their lives, e.g., explore the reasons why they may be tempted to spend more time playing games or find it difficult to stop playing and the effect this has on their health. • To identify the positive and negative influences of technology on health and the environment.	<u>Key Content & Skills</u> To use a spreadsheet to investigate the probability of the results of throwing many dice. To use a spreadsheet to calculate the discount and final prices in a sale. Create a formula to help work out the prices of items in the sale. To use a spreadsheet to plan how to spend pocket money and the effect of saving money. To use a spreadsheet to plan a school charity day to maximise the money donated to charity.		<u>Key Content & Skills</u> To create a picture-based quiz for young children. To learn how to use the question types within 2Quiz To explore the grammar quizzes To make a quiz that requires the player to search a database. To make a quiz to test your teachers or parents	<u>Key Content & Skills</u> • To examine how whole numbers are used as the basis for representing all types of data in digital systems. • To recognise that digital systems represent all types of data using number codes that ultimately are patterns of 1s and 0s (called binary digits, which is why they are called digital systems). • To understand that binary represents numbers using 1s and 0s and these represent the on and off electrical states respectively in hardware and robotics. • To examine how whole numbers are used as the basis for representing all types of data in digital systems. • To recognise that the numbers 0, 1, 2 and 3 could be represented by the patterns of two binary digits of 00, 01, 10 and 11 • To represent whole numbers in binary, for example counting in binary from zero to 15, or writing a friend's age in binary. • To examine how whole numbers are used as the basis for representing all types of data in digital systems. • To represent whole numbers in binary, for example counting in binary from zero to 15, or writing a friend's age in binary. • To explore how division by two can be used as a technique to determine the binary representation of any whole number by collecting remainder terms. • To examine how whole numbers are used as the basis for representing all types of data in digital systems. • To represent the state of an object in a game as active or inactive using the respective binary values of 1 or 0.
<u>Vocabulary</u> Coding variables formula debug simulation if..else..	<u>Vocabulary</u> Online Safety secure broadcasting user device software appropriate	<u>Vocabulary</u> Data and Information Spreadsheet formula copy and paste shortcut cell		<u>Vocabulary</u> Creating Media Data and Information Audio Case-Sensitive Clone Cloze Preview Quiz	<u>Vocabulary</u> Coding digital systems binary digits representing state converting



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user input flowchart				Database	
<u>Assessment against the National Curriculum</u> use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	<u>Assessment against the National Curriculum</u> use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	<u>Assessment against the National Curriculum</u> 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		<u>Assessment against the National Curriculum</u> use sequence, selection, and repetition in programs; work with variables and various forms of input and output	<u>Assessment against the National Curriculum</u> can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation