



St Laurence's CE Primary School
ICT and Computing Overview
Year: 4
Academic Year: 2021/2022



Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Content	Key Content	Key Content	Key Content	Key Content	Key Content
<p><u>The Internet</u> During this unit learners will apply their knowledge and understanding of networks, to appreciate the internet as a network of networks which need to be kept secure. They will learn that the World Wide Web is part of the internet, and be given opportunities to explore the World Wide Web for themselves to learn about who owns content and what they can access, add, and create. Finally they will evaluate online content to decide how honest, accurate, or reliable it is, and understand the consequences of false information.</p>	<p><u>Photo Editing</u> In this unit, learners will develop their understanding of how digital images can be changed and edited, and how they can then be resaved and reused. They will consider the impact that editing images can have, and evaluate the effectiveness of their choices.</p>	<p><u>Data Logging</u> In this unit, pupils will consider how and why data is collected over time. Pupils will consider the senses that humans use to experience the environment and how computers can use special input devices called sensors to monitor the environment. Pupils will collect data as well as access data captured over long periods of time. They will look at data points, data sets, and logging intervals. Pupils will spend time using a computer to review and analyse data. Towards the end of the unit, pupils will pose questions and then use data loggers to automatically collect the data needed to answer those questions.</p>	<p><u>Audio Editing</u> In this unit, learners will initially examine devices capable of recording digital audio, which will include identifying the input device (microphone) and output devices (speaker or headphones) if available. Learners will discuss the ownership of digital audio and the copyright implications of duplicating the work of others. In order to record audio themselves, learners will use Audacity to produce a podcast, which will include editing their work, adding multiple tracks, and opening and saving the audio files. Finally, learners will evaluate their work and give feedback to their peers.</p>	<p><u>Repetition in Shapes</u> Learners will create programs by planning, modifying, and testing commands to create shapes and patterns. They will use Logo, a text-based programming language. This unit is the first of the two programming units in Year 4, and looks at repetition and loops within programming.</p>	<p><u>Repetition in Games</u> Learners will explore the concept of repetition in programming using the Scratch environment. The unit begins with a Scratch activity similar to that carried out in Logo in Programming unit A, where learners can discover similarities between two environments. Learners look at the difference between count-controlled and infinite loops, and use their knowledge to modify existing animations and games using repetition. Their final project is to design and create a game which uses repetition, applying stages of programming design throughout.</p>

Vocabulary:

Explore procedures Refine procedures
 Variable
 Hardware + software control
 Change inputs Different outputs
 Commands
 Online sharing
 Multimedia effects Multimedia modification
 Transitions
 Responsible online communication
 Informed choices
 Virus threats
 Blogs Messaging
 Hyperlinks
 Editing tools
 Refining
 Computing devices
 Internet parts
 Collaboration
 Responsibility
 Searching strategies Webpages



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