

Key Stage KS3
Year Groups 7,8 & 9
School Year 2021 - 2024

Kennel Lane- KS3 Computing/ ICT Long Term Plan

| | Autumn first half term | Autumn second half term | Spring first half term | Spring second half term | Summer first half term | Summer second half term |
|---------------------|---|--|--|--|--|---|
| Year 1 2021-2022 | What is a computer? Learners develop a knowledge of different forms of computers building an awareness of all the devices found around them. Internet Safety | Introduction to algorithms and programming Computational thinking: Building knowledge of simple commands to control a bluebot robot. Program the robot to move around different scenes and scenarios using buttons. Move onto simple coding to control the robot | Building programming skills: Learners use computers in practical applications learning how to build simple programs using simple code – introduction to Algorithms; using 2Code to move Fish and play with bubbles | Building programming skills: Building understanding of and use of algorithms and simple programming to control devices; 2Code Air traffic control and Snail race | Building programming skills: Further development of use of algorithms and coding: 2Code Vehicles and Turtle | Building programming skills: Using 2Code to produce Haunted Scene and also Guard the castle. Bluebot further programming to secure knowledge |
| Year 2 2022-2023 | Networking: Using the internet; navigating the web, carry out simple web searches to collect digital content. Understand the difference between a search engine and a web browser. Staying Safe online: Project Safe internet searching. | Information Technology: Using apps to create and store documents. Crating file names and organising storage. Build a presentation and information booklets on the school and safe internet use. | Building programming skills: Introduction to Sphero and programming it. Develop program to control this robot around a set course. Develop code to make it interact with users. | Building programming skills: Introduction to Python, Python for beginners: Controlling a turtle, creating simple drawings, patterns and shapes. https://www.create-learn.us/blog/python-projects-for-kids/ | Building programming skills: Building knowledge of Python: Design an adventure game. Write a quiz game and design simple chat bot. https://www.create-learn.us/blog/python-projects-for-kids/ | Networking and Information Technology: MS office based project detailing 'how to use the internet'; designing a webpage making use of hyperlinks. |
| Year 3 2023-2024 | Computers: Learners develop a knowledge of the parts of a computer and building a network. Practical experience of building a small home computer network then modelling networks. | Data Representation: Introduction to Boolean functions; AND, OR, NOT Understanding Binary coding. Programming: Python Dice roller and Guess the Number | Programming: Sphero control. Working in small teams develop code to control the robot to follow complicated courses and interact with their environment. | Programming: Introduction to BBC Microbit. Develop code to control the circuit making shapes and sending messages: https://microbit.org/projects/make-it-code-it/ | Networking and Information Technology: MS office producing instructions to help younger learners access Blue bot, Sphero and Microbit. Learners reproduce their programs. Programming: securing knowledge of all code used so far | Programming: Learners choose their medium; Bluebot, Sphero or Microbit to produce a final project documented using MS power-point |

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