



St Joseph's Long Term Computing Plan 2023/24 (Cycle A)



Cycle A						
Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
1/2	<p>Keeping Safe and Exploring Technology Help children stay safe and understand what a healthy use of technology is. Then explore the tech in our homes and businesses and get hands on with control equipment to figure out how it all works.</p>	<p>Making multimedia stories Get children writing and creating digital stories. Work on improving typing skills with fun games, learn about simple text formatting, then bring their work to life with sound and animation.</p>	<p>Programming with ScratchJr Introduce students to this great block-based programming language to create animations and games perfect for KS1. Write and debug algorithms, learn about repeating, and different triggers to create actions.</p> <p>The Lego Project will be incorporated through D&T, Science & Maths.</p>		<p>An introduction to digital art Introduce children to a range of digital art packages and the tools within them. They apply the tools and their skills to a range of artistic styles and genres from painting to photography.</p>	<p>Action algorithms! Apply the concept of algorithms and instructions to a variety of contexts, both digital and analogue (e.g. operating a crane, recipes and dance routines)</p>

Cycle B

1/2

Exploring digital Sound

Introduce children to digital sound, and let them experiment with simple beats, tempo and composition with various tools.

Writing in different styles

Introduce children to word processing and desktop publishing using a number of different tools and design tasks.

Lego Project

Work through this year's project materials using the resources and teaching aids supplied. This is your physical coding unit.

Finding and presenting information

Introduces children to web browsers to explore and search websites safely, collecting and presenting information in graphs, and different ways of sorting and classifying data with databases.

Programming with Logo

Introduce the written programming language of Logo. Students program their on-screen robot to move and create drawings using repeat commands and their own procedures.

Cycle A

3/4	<p>Digital Literacy and online safety (Y3)</p> <p> common sense education</p> <p>Six lessons taken from Common Sense Education's excellent digital citizenship curriculum, covering a wide range of topics including well-being, privacy and security, online identity, relationships, communication and the media.</p>	<p>Digital imagery: Patterns in nature</p> <p>Take a look at the beauty of repeating patterns in nature and different methods of recreating these with digital art tools and photo editing.</p>	<p>Lego Project</p> <p>This is your physical coding unit. FIRST LEGO League Explore is an exciting STEM programme which rapidly develops teamwork, design, programming and communication skills.</p> <p>Children will build a particular model and undertake research on this year's theme – Masterpiece. They will then build their own model and programme it to achieve a specific objective within the theme.</p>	<p>Communication and collaboration</p> <p>Introduce students to email and online collaborative tools. Learn how to safely and appropriately make use of these essential digital tools. using Gmail, Google Drive and shared Docs.</p>	<p>Searching the web</p> <p>Take a detailed look at all elements of searching the web with care and consideration, covering: searching tricks, validating websites, improving your searches, searching images and searching online maps.</p>
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Cycle B

<p>3/4</p>	<p>Digital Literacy and online safety (Y4)</p> <p><i>Six lessons taken from Common Sense Education's excellent digital citizenship curriculum, covering a wide range of topics including well-being, privacy and security, online identity, relationships, communication and the media.</i></p>	<p>Computational Thinking - Alien Contact!</p> <p><i>An unplugged unit to develop your students into strong computational thinkers by solving a wide range of exciting unplugged problems. Will they be able to solve the problems, earn the trust of an alien species and cement a new galactic friendship?!</i></p>	<p>This is your physical coding unit. FIRST LEGO League Explore is an exciting STEM programme which rapidly develops teamwork, design, programming and communication skills.</p> <p>Children will build a particular model and undertake research on this year's theme. They will then build their own model and programme it to achieve a specific objective within the theme.</p>	<p>Databases</p> <p><i>Explore different ways to collect, interrogate and present data collaboratively using a range of programs. What is a database? Why and how are they used in real life?</i></p>	<p>3D Design - Digital Modelling</p> <p><i>Introduce 3D modelling and design, looking at both architectural design of buildings and sculpture of models. Learn the basics of Sketchup and then put your design skills to the test with a number of projects.</i></p>
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Cycle A

5/6	<p>Digital Literacy and online safety (Y5)</p> <p> common sense education</p> <p>Six lessons taken from Common Sense Education's excellent digital citizenship curriculum, covering a wide range of topics including well-being, privacy and security, online identity, relationships, communication and the media.</p>	<p>Getting started with the BBC micro:bit</p> <p>Introduce students to physical computing with a BBC micro:bit. Control the LED matrix and find out how screens work, learn about inputs and outputs, turn your micro:bit into a scoring or game device while learning about variables, conditionals and iteration.</p> <p><i>micro:bits are available to loan</i></p>	<p>Building Collaborative websites</p> <p>Use Google apps for collaborative research as well as planning and creation of a group website, considering the design and consistency of the site.</p>	<p>What is a computer?</p> <p>Delve into what really makes a computer a computer. Can a TV, fridge or toilet be a computer? Also investigates just what is inside that metal box, how a computer works, memory, data and binary code. By the end you'll know your RAM from your ROM and your CPU from your GPU.</p> <p><i>A resource box for this unit is available to loan</i></p>	<p>Lego League Project</p> <p>A global STEM project that develops key skills for future careers, including coding, design and research.</p> <p>This year's MASTERPIECE robot game is about the technology that will improve an audience's experience of a creative production.</p> <p>Code your robot to complete a series of missions autonomously in a 2.5-minute robot game to score points.</p>
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Cycle B

5/6

Digital Literacy and online safety (Y6)

 common sense education

Six lessons taken from Common Sense Education's excellent digital citizenship curriculum, covering a wide range of topics including well-being, privacy and security, online identity, relationships, communication and the media.

Programming Robots

Introduce students to programming LEGO EV3 Robots. Control their movement with precise calculations and coding, then utilise the robot's sensors to interact with its environment and solve problems.

Class Pack Lego Project

Creating Instructional Videos

Plan, design and create instructional teaching videos. Perfect for reinforcing other areas of the curriculum. Students can create videos to support each other with revision and then share them online to give access to everyone in the class

Manipulating images

Investigate a range of different artistic styles and how they can be recreated using digital art tools. Digital sculpture is also looked at and combined with photo editing.

Inside the internet

Get under the skin of the Internet to investigate how the web works, how it's built and written with HTML code. Then learn how to create your own web pages written in HTML and CSS.