



St Oswald's Catholic Primary School – Curriculum Overview 2019/2020

Computing

	Autumn	Spring	Summer
Nursery	Throughout nursery the children will cover these objectives: <ul style="list-style-type: none"> • Seeks to acquire basic skills in turning on and operating equipment. (Understanding the World, Technology 22-36) • Operates mechanical toys, e.g. turns the knob on a wind-up toy or pulls back on a friction car. (Understanding the World, Technology 22-36) • Knows how to operate simple equipment. (Understanding the World, Technology 30-50) • Shows an interest in technological toys with knobs or pulleys, or real objects. (Understanding the World, Technology 30-50) • Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. (Understanding the World, Technology 30-50) • Knows that information can be retrieved from computers. (Understanding the World, Technology 30-50) • Completes a simple program on a computer. (Understanding the World, Technology 40-60) • Interacts with age-appropriate computer software. (Understanding the World, Technology 40-60) 		
Reception	<p>How do computers work? A1 –Little Computers (IT,DL) Activity explaining what is a computer and its peripherals. Children will make their own computer using junk and develop basic computer skills through playing a variety of games.</p> <p>What do you want for Christmas? A2- Let's Celebrate (IT,DL) This activity should be ideally delivered around the Christmas period as it can be directly linked to "writing an email to Santa". The aim is teach children about sending their first email and the rules that they should be aware of when communicating digitally.</p>	<p>What are instructions? Sp1 – A is for Algorithm (CS) This unplugged activity will demonstrate to children the importance of sequencing by breaking down popular stories into individual elements so children can see the importance of following a sequence. Children will gain an understanding of the term Algorithm.</p> <p>Can I create digital art? Sp 2- Art Attack (DL) Children will experiment with different drawing apps and software across a range of devices whilst being introduced to different styles of digital art. This activity will show children how to find images using the web.</p>	<p>Can I retell a Fairy-tale? Su 1- Fantastic Tales (DL) This is a cross curricula activity with links to both Literacy and Art. Children will learn a popular tale and then re-tell the story by producing their own animation.</p> <p>Where will the Bee Bot travel? Su 2- Junior Explorers (CS) Children will learn to give sequences of instructions to control Bee-Bots (floor robot). Children will understand that instructions need to be given in a correct order.</p>
	<p>Digital Citizenship & Technology (DL) eSafety Level 1 (Reception, Year 1 & 2)</p> <p>1.1 eSafety Awareness Raising (Video & Class Discussion)</p> <p>Sending emails and messages (Maily)</p> <p>1.3 Introducing on-line life and what it is? Including gaming e.g. Minecraft</p> <p>1.4 What is Cyber Bullying?</p> <p>1.5 Stranger Danger</p>		
Year 1	<p>Can I present a script? AU 1- Young Investigators (IT,DL) In this activity, children will learn how to search on the internet in relation to a specific topic to develop basic web skills. The children will use Thinglink to produce and publish an interactive image.</p> <p>What story can pictures tell us? AU 2- Pictures Tell a Thousand Words This project will teach children about the main functions and buttons of a digital camera as well as about different shots. Children will see how important images can be by looking at well-known picture books such as The Snowman.</p>	<p>Where do I live? SP 1- Our Local Area In this computing activity, we will be using technology to help us explore our local area. It uses investigative tasks to introduce children to the idea of looking at their local area with the aid of technology.</p> <p>Can I make Daisy the dinosaur? SP 2- Walking with Dinosaurs (CS) By the end of this project, children will fully understand the term algorithm and will be able to use a simple app on an iPad to reinforce this learning.</p>	<p>How are we connected? SU 1- We are all Connected (CS) The aim of this activity is to show children how the web works. The children will produce a simple eBook or presentation incorporating the key terminology they learn from this session.</p> <p>How does a robot move? SU 2- App Attack - Games Design (CS) The aim of this activity is to introduce children to the simple concepts of games design as well as notions of sequencing, computational thinking, directional language and problem solving.</p>

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Year 2	<p>Can you create code using Scratch? AU 1- Code-tastic (CS) Introduction to the language of code. Children will use a variety of programming apps/software to give them a practical understanding of how computer programs actually run.</p> <p>Can you write and send an email? AU 1- You've got mail (CS, IT, DL) The aim of this apptivity is to help children explore how they can use email to communicate with real people within their schools, families, and communities.</p>	<p>Can you create a space invader game? SP 2- Super Sci-Fi (IT, DL) This space inspired project starts by children creating a simple space invader game to then creating a game using advanced settings. The children will also learn about mnemonics and create their own interactive quiz as well as bring Neil Armstrong to life retelling his story.</p> <p>Can you de-bug a program? SU 1- Let's Fix IT (CS) Using Scratch, this apptivity will challenge children to analyse simple computer programs and by identifying any errors within the code, they can find a solution.</p>	<p>What is animation? SU 2- Mythical creatures animation. (IT) The children will learn about the history of and different types of animation. They will firstly produce a story about their made up mythical creature and then create their animation out of Clay/Plasticine or Paper using Animate it.</p> <p>Can you analyse the weather and create graphs? SU 2- Whatever the Weather (IT) This apptivity will get children looking at data, how it can be presented and interpreted. Children will have to gather the data and then select the most appropriate method to display the data they have captured.</p>
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Year 3	<p>Have we all had a say? A1- Class Democracy (IT, DL) Children will be introduced to the concept of democracy. Children will create their own bill for proposed legislation and create an animation and an endorsement to support their bill.</p> <p>Can I illustrate a story? A2- We are Publishers (DL) Children will create an eBook retelling the story of a famous book including illustrations that they will create themselves using Brushes</p>	<p>Is my game fun to play? Sp 1- We love Games (CS) In this apptivity children will use gaming apps to develop computational thinking skills and develop a simple program as a final project.</p> <p>Why is the order of instructions important? Sp 2- Big Robots (CS) The project will reinforce an understanding of directional language and programming. The final lesson will provide children with the opportunity to write their own algorithm by creating a flowchart.</p>	<p>Can I program a Sprite? SU 1- My first programme (CS) This lesson plan will take you through the necessary steps to guide children in creating their very first computer game in Scratch.</p> <p>How can I maintain a healthy lifestyle? SU 2- Going for gold (my body my fitness) (DL,IT) Children will create a "My body, My fitness" e-book, which will document each week a personalised "Going for Gold" record.</p>

	<p>Digital Citizenship & Technology (DL) eSafety Level 2 (Year 3 & 4)</p> <p>2.1 eSafety Awareness Raising (Video & Class Discussion)</p> <p>2.2 Communicating On-line and images, Social Networking</p> <p>2.3 Gaming and collaboration</p> <p>2.4 Cyber Bullying & Report Abuse</p> <p>2.5 Friend or Foe</p> <p>2.6 Copy Right, what is it?</p> <p>2.7 Passwords & Security (Virus, downloads, pop ups and scams)</p>		
Year 4	<p>Will you read my blog?</p> <p>A1 -Back to the Future (CS)</p> <p>In this project, children will create their own blog detailing what they learn from researching about different technologies, inventors and the different components of a computer.</p> <p>Can I bring my writing to life?</p> <p>A2- MGL Heroes (CS, IT)</p> <p>In this computing activity, children will blend creative writing and coding to produce their own interactive animations.</p>	<p>What does it take to direct a movie?</p> <p>SP 1- Hurray for Hollywood (DL)</p> <p>The children will devise their own characters, plot and storyboard before filming a short movie which they will then edit in iMovie</p> <p>How do we browse the internet?</p> <p>SP 2- MGL - Interface Designer (CS)</p> <p>HTML is the language used to create files which can be read by internet browsers to display web pages on the internet. In this lesson, children will build a basic web page using tags and elements to change the design and the colour of the web page.</p>	<p>Can I create a social media campaign?</p> <p>SU 1- We've Got the Power</p> <p>In this computing activity we will be exploring the power of social media as a force for good. We will ask children to start a campaign to correct one of the many wrongs in our world and use social media to gain support and gather momentum for their cause.</p> <p>Can I create a sports news report?</p> <p>SU 2- Final score (DL)</p> <p>Working in groups, the children will create their own sports news report which they will share and work on together online using iWork or Google Docs.</p>
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Year 5	<p>How can I change the world?</p> <p>AU 1- Let's change the world: Inventors (CS, DL)</p> <p>This project will culminate with children creating their own animation using I Can Animate. The children will create their own props and sets and will also learn how to edit their final piece in iMovie.</p> <p>Who will win the race?</p> <p>AU 2- Cars (CS)</p> <p>This lesson plan will take you through the necessary steps to create a detailed 2 player game that includes racing cars around a track.</p>	<p>How can AR bring art to life?</p> <p>SP 1- MGL - Interactive Art Exhibition (DL)</p> <p>The aim of this activity is to introduce children to the amazing world of Augmented Reality (AR). AR is a technology that superimposes a computer-generated image or video on a user's view of the real world.</p> <p>Can I become a virtual architect?</p> <p>SP 2- Grand Designs (DL, IT)</p> <p>Over six sessions, children will be exploring drawings/illustrations representing both 2D and 3D worlds.</p>	<p>Do I have to be an astronaut to explore outer space?</p> <p>SU 1- MGL- Making Games (CS)</p> <p>In this activity children will be exploring the earth and space using technology. The activity is designed so children look at all the different aspects of space.</p> <p>Can I develop my own website?</p> <p>SU 2- Web Site Designers (CS)</p> <p>A six-week lesson plan to guide children in creating their own website using free templates from WordPress.</p>

	<p>Digital Citizenship & Technology (DL) eSafety Level 3 (Year 5 & 6)</p> <p>3.1 eSafety Awareness Raising (Video & Class Discussion)</p> <p>3.2 Communicating On-line and images, Social Networking, Sexting, images and grooming (What are you sharing)</p> <p>3.3 Gaming and collaboration</p> <p>3.4 Cyber Bullying & Report Abuse</p> <p>3.5 Friend or Foe</p> <p>3.6 Copy Right, what is it?</p> <p>3.7 Passwords & Security (Virus, downloads, pop ups and scams)</p> <p>3.8 In App Purchases & Mobiles (iPads, Phones etc.)</p>		
Year 6	<p>Good or evil, who will conquer?</p> <p>A1- MGL- Heroes and Villains – Graphics (DL)</p> <p>This project will take children through the steps to create their own Heroes and Villains style game using the program Scratch.</p> <p>Can I create an E-book?</p> <p>A 2- Young Authors - interactive (IT, DL)</p> <p>During this project, children will develop a story idea in small groups to create a storyboard. The children will then use Apple Books and Brushes to create their own eBook including text, illustrations and audio.</p>	<p>Can I create a report to teach younger children about Digital Literacy and E-Safety in primary schools?</p> <p>Digital Citizenship & Technology (DL) eSafety Level 3 with a focus on application and reinforcement of skills across the curriculum, with an end piece of work summarising Digital learning from KS2.</p> <p>E-Safety Awareness Raising (Video & Class Discussion)</p> <p>Communicating On-line and images, Social Networking, Sexting, images and grooming (What are you sharing)</p> <p>Gaming and collaboration</p> <p>Cyber Bullying & Report Abuse</p> <p>Friend or Foe</p> <p>Copy Right, what is it?</p> <p>Passwords & Security (Virus, downloads, pop ups and scams)</p> <p>In App Purchases & Mobiles (iPads, Phones etc)</p>	<p>Where should I invest my money?</p> <p>Su 1 – Stocks and Shares</p> <p>This activity is designed to give children an understanding of the stock market but more importantly engage them in a task that makes them analyse data, make informed choices, present and critique their decisions.</p> <p>Can I learn a new language?</p> <p>Su 2- MGL- The Ministry of Crazy Coding (CS,DL)</p> <p>We will be using Python programming to develop a game. Python is a programming language named after Monty Python the surrealist comedy group. Python's is simple, easy to learn compared with other languages like Java and C++.</p>