



# Churchfields Infants' School

## Our Computing Pathway

### Summer 2: We Are Zoologists

- Present and evaluate information
- Record information on a digital map
- Use Google Sheets and Microsoft Excel to produce basic charts
- Collect data
- Learn how a classification key and branching database can be used
- Plan and record audio to accompany animations; review other children's animations
- Understand stop-motion animations; use Stop Motion Studio to create animations

Summer 1: We Are Animators

### Autumn 2: We Are Games Testers Spring 1: We Are Photographers We Are Safe Researchers

- Create, test & debug simple programs
- Use reasoning to predict the behaviour of programs
- Observe and describe what happens in computer games
- Use strategies to devise an interesting game
- Edit and enhance photos
- Revisit Aut 1 learning
- Understand what algorithms are
- Stay safe using technology
- Think about protecting own and others' privacy. Review and edit book contents
- Add page backgrounds and text effects
- Plan a multimedia ebook on topic of own achievements
- Use technology to create, use, store and retrieve data
- Develop skills in taking effective photos
- Understand what research is and how to structure questions using a mindmap
- Add information from independent research to a mindmap
- Create a multimedia presentation and develop presentation skills
- Evaluate a finished video product
- Learn what makes an effective animation; plan an animation
- Edit to include others' ideas

YEAR 2

### Summer 2: We Are Publishers

### Summer 1: We Are Detectives

- Add audio commentary
- Choose and import images. Add page titles
- Recognise use of technology beyond school
- Search a database to solve problems presented as clues
- Input data to an online form to create a table
- Create a tree for identification of data
- Learn how data can be organised and structured with different fields e.g. tree, table
- Collaborate and discuss own and others' work
- Create and debug simple programs
- Learn to control a robot (bee bot) by inputting a series of instructions
- Develop and record a series of instructions as an algorithm
- Correct a sequence of instructions
- Record and play back audio using Scratch Jr
- Use repetition to create a pattern with audio
- Explore percussion effects with a different program e.g. Garage Band
- Use undo function to correct mistakes and encourage experimentation and use multiple layers
- Select a line tool to create an outline drawing in style of Picasso's Dove of Peace
- Create a painting layered on a photo in the style of Julian Opie. Draw grid paintings in the style of Mondrian
- Edit video and include audio commentary

Spring 2: We Are TV Chefs

### Autumn 1: We Are Treasure Hunters Autumn 2: We Are Rhythmic Spring 1: We Are Digital Artists

- Learn to stay safe when using technology
- Use technology purposefully to create, store and retrieve digital content
- Program sprites to play back audio
- Explore different audio effects on Scratch Jr
- Create artwork in a range of styles using tablets using Busy Things or painting feature
- Create colour blocks in the style of Rothko. Create concentric circles in the style of Kandinsky
- Create layers in the style of Matisse's Snail
- Break a recipe process into steps - create an algorithm
- Use video feature on a tablet to record making a recipe

YEAR 1

### Summer Term

- Research a class topic or theme on the internet; share and talk about findings
- Looking at maps online, drawing maps and using diagrams for programming
- Watch and listen to stories on the interactive whiteboard
- Explore technological toys (old hardware) e.g. phones, cameras, household appliances
- Use a Chromebook to play a game individually
- Talking about e-safety at home and at school
- Loose parts play - sorting and categorising

### Autumn Term

### Spring Term

- Play an interactive whiteboard game as a class
- Listen to songs on the interactive whiteboard
- Listen to music and dance with CD or digital music player
- Login to an electronic device (Chromebook), talk about how to keep ourselves safe and develop familiarity with systems / software
- Use Bee-bots and remote controlled cars
- Following and giving instructions. Introduction to programming
- Logical reasoning - breaking a problem down into steps
- Sequencing and repeated patterns
- Making and exploring cause and effect
- Persevering to solve a problem

Reception

## 2. Computational Thinking

- Algorithms - responding to instructions
- Data handling - naming, labelling, categorising, sorting
- Children observe adults using technology in the setting, e.g. cameras, tablets etc

Nursery

## Themes Across the Year: 1 Preparing for Computing

- Watch stories on an interactive whiteboard
- Children talk about technology in their homes
- Role play using pretend technology e.g. iron, phone, camera etc
- Use technology in the setting e.g. music player, camera, tablets
- Organising and sorting equipment