

Year 4

Computing and Digital Skills

	Apps:	Web Resources:	LGfL resources:	Digital devices:
Computer Science 	Scratch Jr Kodable Lightbot	Scratch Code for Life Code.org PurpleMash 2Code (subscription) Barefoot BBC Computing/Science Clips	J2Code Virtual Experiments	Makey Makey
Digital Literacy 	Safari Chrome	Switched On Online Safety Thinkuknow (Lee and Kim) BBC KS2 Computing 2Simple 2Email PurpleMash email	US Online CyberPass J2e J2Webby Office 365	Laptops Desktops iPad Tablets
Information Technology 	J2Launch iMovie GarageBand Green Screen by DoInk (subscription) Book Creator Kahoot! Apple Pages/Numbers	Dance Mat typing (BBC) 2Simple 2Type PurpleMash Brown Bear typing Primary Games Arena Book Creator Microsoft Word/Excel Google Docs/Sheets	J2e Weather Stations Busy Things J2Webby	Data Loggers Digital camera iPad Tablets Microphones Sound buttons

National Curriculum

- ❖ Solve problems by decomposing them into smaller parts
- ❖ Use logical reasoning to explain how some simple algorithms work
- ❖ Detect and correct errors in algorithms and programs
- ❖ Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems
- ❖ Use sequence, selection and repetition in programs
- ❖ Work with variables
- ❖ Work with various forms of input and output

Key Skills/Objectives

- I can plan and enter a sequence of instructions on a robot/sprite to achieve specific outcomes
- I can test and improve/debug programmed sequences
- I can use broadcast/receive to link sprites and stage
- I can use selection (if else) blocks to give different outcomes.
- I can use an algorithm to sequence and order more complex programming.
- I can explain how algorithms work, predicting outcomes and debugging
- I can create and edit procedures using commands such as pen up, pen down and change direction.

Supporting Units of Work

Islington:

- ❖ Scratch- Animation Virtual Tour
- ❖ Makey Makey projects

Additional Documents:

- ❖ Scratch: Progression Yr 3-5

Barefoot:

- ❖ Modelling the Internet
- ❖ Selecting Search Results
- ❖ Scratch Pizza Pickle Debug
- ❖ Bug in the Water Cycle (Scratch)
- ❖ KS2 Search Engine Rank Results
- ❖ Animated Poem Decomposition (Scratch)
- ❖ Logical Number Sequences
- ❖ Unplugged: Variables

Examples of Cross Curricular Links

- ✓ Create games/simulations linked to topics using Scratch – animation of historic events, interviews and conversations.
- ✓ Use Scratch to create virtual tours around key locations – school, London, countries
- ✓ Create Maths/ topic quiz including variables
- ✓ Use Scratch to create tiling patterns or art simulations using the pen up, pen down functions.

National Curriculum (by the end of KS2)

- ❖ Use technology safely, respectfully and responsibly
- ❖ Recognise acceptable / unacceptable behaviour
- ❖ Identify a range of ways to report concerns about content and contact
- ❖ Understand how computer networks, including the internet, can provide multiple services (such as the World Wide Web) and the opportunities they offer for communication and collaboration
- ❖ Use search technologies effectively
- ❖ Appreciate how search results are selected and ranked

Key Skills/Objectives

- I can use an internet search to answer questions on a topic and know there are different search engines available
- I can use different search engines and their features, e.g. Google Image Search, video, sound etc.
- I can understand copyright issues – what images / videos / sounds are legal and safe to use.
- I know that web sites are not always accurate and that information should be checked before it is used
- I understand some of the risk and rewards involved in publishing online and know how to keep safe
- I can recognise the effect that their writing or images may have on others and to respect the ideas and communications of others/ they encounter online
- Know that need to have appropriate permission for use of images of friends or those they have found online

Switched On Online Safety

- ✓ Unit 4.1 – We are Year 4 rule writers
- ✓ Unit 4.2 - We are standing up to peer pressure
- ✓ Unit 4.3 - We are aware that our online content lasts forever
- ✓ Unit 4.4 - We are online risk managers
- ✓ Unit 4.5 - We are respectful of digital rights and responsibilities
- ✓ Unit 4.6 - We are careful when talking to virtual friends



Examples of Cross Curricular Links

- ✓ Create a presentation and then publish to a blog
- ✓ View and comment on others' work on a blog
- ✓ Compare the different ways of communicating online using blogs, emails, instant messaging, video calling and social media.
- ✓ Create scenarios of when copyright infringements have happened and hold a court hearing.

National Curriculum

- ❖ Be discerning in evaluating digital content
- ❖ Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals including collecting, analysing, evaluating and presenting data and information

Key Skills/Objectives

- I can add information and use the 'field' function within a database
- I can sort record cards by using field names and use a database to find the answer to simple questions
- I can use the search tool find information and search for answers to simple questions.
- I can create simple bar charts and use them to answer questions
- I can use a branching database to identify objects and add additional objects to an existing branching database
- I can select colour, cell size and text appropriately
- I can save and retrieve documents from shared areas using sensible names
- I can use data loggers to capture information to use over time.

Remember to:

- give pupils opportunities to publish their written work digitally
- provide sharing opportunities across the wider community
- share tips with parents/carers

Examples of Cross Curricular Links

- ✓ Children use Audacity to make an audio recording of poems they have written and include voice, sound effects and music.
- ✓ Children create a photomontage from a variety of sources linked to class work e.g. Africa
- ✓ Create pop art-style images by changing effects of a still image
- ✓ On a school trip children collect digital images, video, and sound samples and use these to produce a multimedia presentation to show either their parents or other children in the school
- ✓ Illustrate English work on fantasy settings by manipulating an image, incorporated painted and photographed features.
- ✓ Create an advert for healthy food, using either live action or animation
- ✓ Children create a persuasive trailer for a film
- ✓ Children create an explanation text with hyperlinks to further detail
- ✓ In Literacy publish instructional, report and play writing.

Examples of Cross Curricular Links

- ✓ Conduct a survey with a questionnaire, to collect data for use with a spreadsheet as graphing package
- ✓ Design a branching database for others to use that will teach them about the wives of Henry the VIII
- ✓ Create a database to investigate how people spend their time and use the database to answer questions.
- ✓ Record the results of an experiment investigating friction and use the results to answer hypotheses/questions. (e.g. cars down slopes)
- ✓ Enter data from a science investigation into a spreadsheet
- ✓ Create a simple maths function machine using a spreadsheet
- ✓ Use data logging to compare volume of different sound sources or in different rooms, or in one place over time
- ✓ Use data from weather stations or own data logging to compare localities
- ✓ Interpret graphs illustrating changes in conditions
- ✓ Use a data logger to graph the change in temperature as a liquid cools
- ✓ Use a handheld data logger to measure temperature in different parts of the classroom or school