

Y1-6 Planning/Progression

Subject Lead

2017-2018

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
COMPUTER SCIENCE	Programming • Bee-bots, • LGfL, • Scratch, PurpleMash: 2Code, • Code.org • Kodu	PurpleMash 2Code Code.org Islington Unit 1 (Bee-Bots) Islington Unit 2 (onscreen turtles using resources on LGfL)	PurpleMash 2Code Code.org Islington Unit 1 (Pro-bots) Islington Unit 2 (Onscreen turtles using LGfL resources, including iBoard, JIT)	PurpleMash 2Code Code.org Scratch Islington Y3 Unit 1 Pro-bot Unit (Islington)	PurpleMash 2Code Code.org Scratch Islington Y4 Unit 1	PurpleMash 2Code Code.org Scratch Islington Y5 Unit 1 (Quiz) SOCIT Kodu free Unit	PurpleMash 2Code Code.org Introduction to HTML Y6/7 Transition unit linking to blog (Islington)
	Networks and the Internet	Focus on correctly opening application, saving work, opening a saved file.	Labelling parts of a computer/iPad Network hunt	Networks and Communications Unit (8 lessons)	Networks and Communications Unit (8 lessons)	Networks and Communications Unit (5 lessons)	Networks and Communications Unit (Project 2/3 lessons)
	Barefoot Computing SEND resources	Bee-Bot Tinkering Bee-Bot Basics/ SEND Bee-Bot Basics Bee-Bot Programming Crazy Character Algorithm Bee-Bot Route Decomposition Creating Patterns Activity Sorting Objects Activity	Spelling Rules Algorithm ScratchJr Tinker ScratchJr Knock Knock Joke Lego Building Algorithms Unplugged: Decomposition Patterns Unplugged – Elephants, Cats and Cars Sharing Sweets Algorithm River Crossing Activity	Unplugged: Decomposition (Re-visited) 2D Shape Drawing Debugging Logical Reasoning Unplugged: Abstraction Patterns Unplugged – Reusing recipes Scratch Tinkering/ SEND Scratch Tinkering Shapes and Crystal Flowers (Scratch) Musical Sequences Activity World Map Logic Activity Make a Game Project (Scratch)	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	Network Hunt Viking Raid Animation (Scratch) Investigating Inputs (Scratch) Investigating Outputs (Scratch) Maths Quiz – Selection (Scratch) Solar System Simulation (Scratch) Kodu Tinker Use selection (Kodu) Maths Quiz – Variables (Scratch) Classroom Sound Monitor (Scratch)	KS2 Search Engine Rank Results Intro to HTML Intro to HTML with Mozilla Thimble Designing Games with Kodu Lab Designing Games with Kodu Lab

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INFORMATION TECHNOLOGY	Multimedia & Word processing • See <i>Islington Booklets</i> Examples: Word Publisher Google Docs PowerPoint MS Sway Google Sheets Prezi	Word Processing: creating simple text documents using the keyboard: locating letters, locating keys: space bar, shift to enter capital letters, backspace to delete, locating full stops 2Publish Extra, PurpleMash, LGfL Busy Things) Using the keyboard (BBC dance mat and Brown Bear Typing)	Word Processing, creating story boards, comics, etc. (2Simple, PurpleMash 2Publish Extra, LGfL Jit, LGfL Busy Things) using a developing range of text tools: Changing font size, type colour. Create a simple multimedia book. Inserting images and audio. PurpleMash 2Create a Story Using the keyboard (BBC dance mat and Brown Bear Typing)	Word Processing: Word, Google docs & Publisher (using formatting tools, e.g. text boxes, WordArt, bullet points, spellchecker, right click menu to copy, paste, insert, etc.) Touch typing (using more than 2 fingers to type) Using different templates, e.g. newspaper (2Publish, Publisher)	Word Processing: Word, Google docs & Publisher (using a wide range of tools and integrating other online resources: hyper linking to appropriate websites, embedding content, acknowledging sources. Touch typing (using 2 hands to type) Using different templates for different genres, e.g. newspaper (LGfL J2Easy J2e5, Publisher)	Choose from a range of to create presentations. Organise, refine and present information for a specific audience. (LGfL J2E, Publisher, PowerPoint, Word, Google docs, Scratch 2Create) Evaluate their own and each other's work through peer assessment (Publish and add comments on blog) Develop confidence using both hands when typing	Create collaborative documents, (Wiki) to organize, present and publish information for different purposes to a range of audiences. (J2E on LGfL, Publisher, PowerPoint, Word) Present and evaluate my own and each other's work through peer assessment (Publish and add comments on blog) Consolidate keyboard techniques and touch typing skills
	Digital Media (graphics, video, music, sound) (See <i>Islington Booklets</i>)	Graphics: Create artwork (PurpleMash, 2Paint, 2Paint a picture, 2Publish, 2Publish Extra, 2 Create a story, LGfL J2e Jit, LGfL Busy Things) Digital images/ Video: take digital photographs Audio	Graphics: Create artwork (2Paint a Picture, LGfL Busy Things) Animation: create simple animation in PurpleMash 2Animate, JIT (LGfL) Video: take digital photographs, edit using simple photo editing	Graphics: Creating digital artwork and interactive webpages for blog (J2E on LGfL) Animation: create complex animation PurpleMash 2Animate, JIT (LGfL) Edit images using crop, resize, recolour Microsoft Photo editor	Graphics: Creating digital artwork portfolio and interactive webpages for blog (J2e5 on LGfL) Video: Using stock video re-edit footage to create own presentation, insert captured footage. Espresso, Movie Maker	Graphics: Creating digital artwork and interactive webpages for blog (J2E on LGfL) Video & Sound: Film project in groups (plan a video, use different filming techniques and sound effects, present and evaluate work to audience), Movie Maker, Audio Network	Graphics: Creating digital artwork and interactive webpages for blog (J2E on LGfL) Video/Animation & Sound: plan a storyboard, create an animation for a purpose. Film, edit and refine. Re-edit, create sound effects and backing

	<p>Music/Sound: Create/explore music (PurpleMash 2Explore, 2Beat, LGfL Magic School, Busy Things, Audio network, JIT sound Recorder)</p>	<p>tool, (Paint, 2Paint a picture,) Create and edit a simple video using digital cameras/ iPads</p> <p>Photostory/Movie Maker app</p> <p>Music/Sound: Add voice, and sound effects to digital book, PurpleMash 2Create a story. Create/explore music and sound. Use microphones (PurpleMash 2Sequence, JIT sound Recorder)</p>	<p>Create a video presentation using digital photographs</p> <p>Movie Maker/ iMovie app</p> <p>Music/Sound: Create voice over and add backing track to video presentation. LGfL Audio Network microphones</p>	<p>Music/Sound: Radio Programme project (listen, evaluate, plan and write a script. Rehearse and record voice. Create and add backing track and sound effects.) Audacity, Audio Network</p>	<p>Music/Sound: Radio Program project (listen, evaluate, plan and write a script. Rehearse and record voice. Create and add backing track and sound effects.) Audacity, Audio Network. Refine output before publishing.</p>	<p>track. Publish and present to an audience</p> <p>Movie Maker, Audio Network, Audacity.</p>
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<p>Communication & Collaboration (online publishing, blogs, internet research)</p> <p>(See Islington Booklets)</p>	<p>Create and share story in pairs (2Publish), Use microphones to retell story.</p> <p>Online research for topic using child-friendly search engines.</p>	<p>Create and share story/work/project (2Publish or Word), Use microphones to record information.</p> <p>Use J2e5 to blog work.</p> <p>Online research for topic using child-friendly search engines.</p>	<p>Online publishing: creating and commenting on each other's blogs/work (See 'Blogging Unit' planning)</p> <p>Online research: use search technologies effectively including searching maps/images</p> <p>Complete an online quiz or survey, e.g. LGFL e-safety survey</p>	<p>Online publishing: creating and commenting on each other's blogs/work. (See 'Blogging Unit' planning)</p> <p>Visit a variety of school blogs, discuss & compare</p> <p>Online research: use search technologies effectively including searching maps/images</p> <p>Complete an online quiz or survey, e.g. LGFL e-safety survey</p>	<p>Online publishing: creating and commenting on each other's blogs/work (See 'blogging Unit' planning).</p> <p>Visit a variety of school blogs, discuss & compare</p> <p>Online research: use search technologies effectively including copyright</p> <p>Complete an online quiz or survey, e.g. LGFL e-safety survey</p>	<p>Online publishing: creating and commenting on each other's blogs/work. Visit a variety of school blogs & compare. Regularly update a blog during a term. Add photos and links to related sites or other blogs to make it personal.</p> <p>Online research: use search technologies effectively including copyright</p> <p>Complete an online quiz or survey, e.g. LGFL e-safety survey</p>
<p>Data (graphs, databases, data loggers)</p> <p>(See Islington Booklets)</p>	<p>Collect information to answer a question about the class.</p> <p>Create pictogram, simple graph using LGfL Jit, PurpleMash 2Count, 2Graph (2Simple Video Toolkit)</p> <p>Talk about data and begin to compare data.</p>	<p>Design and collect information for a simple questionnaire</p> <p>Create simple graph using JIT (LGfL), Purplemash, 2Count, 2Graph (2Simple Video Toolkit)</p> <p>Branching database (iBoard LGfL, Mini-beasts database LGfL)</p> <p>Discuss data and begin to compare information.</p>	<p>Design and collect information for a simple questionnaire</p> <p>Collect data and present in a variety of formats, e.g. PurpleMash 2Calculate. 2graph.</p> <p>Use a simple existing database to carry out a simple search to answer a series of questions.</p> <p>PurpleMash 2Investigate</p>	<p>Design and collect information for a simple questionnaire</p> <p>Collect data and present in a variety of formats, e.g. 2Purplemash Calculate 2graph, Excel.</p> <p>Design and create a database. Use database to carryout complex searches to answer questions</p> <p>(PurpleMash 2Simple – 2Investigate)</p>	<p>Spreadsheet modelling</p> <p>Create a budget for a school tuck shop/ planning class party</p> <p>Change the data and formulae in a spreadsheet to answer 'what if ...?' questions and check predictions</p>	<p>Spreadsheet</p> <p>Use a spreadsheet to solve problems.</p> <p>http://www.realworldmath.org/measurement-lessons.html</p> <p>Spreadsheet modelling. Create a budget to accompany a produce. Research the cost of materials, labour, packaging, transport etc. Present to audience in 'Dragon Den' style.</p>

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DIGITAL LITERACY - Continuous throughout school day and reminder home use	Online Safety:	1.1 Developing online safety guidelines Creating rules that help us stay safe online	2.1 Developing online safety guidelines Reviewing and editing our online safety guidelines	Unit 3.1 – We are Year 3 rule writers Reviewing and editing our online safety rules	Unit 4.1 – We are Year 4 rule writers Reviewing and editing our online safety rules.	Unit 5.1 - We are Year 5 rule writers Reviewing and editing our online safety rules	Unit 6.1 - We are online safety ambassadors Reviewing and editing our online safety rules
	Switched On Online Safety Scheme	1.2 Social and Emotional Wellbeing and developing resilience Understanding the impact of our behaviour on others	2.2 Social and Emotional Wellbeing and developing resilience Creating a strong message against online bullying	Unit 3.2 – We are digital friends Developing an awareness of online bullying	Unit 4.2 - We are standing up to peer pressure Dealing positively with peer pressure	Unit 5.2 - We are responsible for our online actions Understanding the impact of online behaviour	Unit 6.2 - We will not share inappropriate images Inappropriate use of technology and the internet – nude selfies
		1.3 Responsible internet use Remembering to take time out from technology	2.3 Responsible internet use Learning how to use search engines safely	Unit 3.3 – We are internet detectives Assessing the trustworthiness of websites	Unit 4.3 - We are aware that our online content lasts forever Getting the message: pre- and post-internet	Unit 5.3 - We are content evaluators Understanding advertising and endorsements online	Unit 6.3 - We are safe social networkers Understanding that internet safety skills must always be switched on
		1.4 Keeping information safe Understanding what is meant by personal information	2.4 Keeping information safe Generating strong passwords and keeping them safe	Unit 3.4 – We are aware of our digital footprint Understanding the digital trails we leave behind	Unit 4.4 - We are online risk managers Understanding risk and prevention of information loss	Unit 5.4 - We are protecting our online reputation Developing strategies to protect our future selves	Unit 6.4 - We are respectful of others Respecting the personal information and privacy of others
		1.5 Digital Citizenship Finding out what it means to be a good digital citizen	2.5 Digital Citizenship Solving online safety problems	Unit 3.5 – We are netiquette experts Practising good netiquette	Unit 4.5 - We are respectful of digital rights and responsibilities Understanding and respecting digital rights and responsibilities	Unit 5.5 - We are respectful of copyright Understanding and applying copyright laws	Unit 6.5 - We are online safety problem solvers Using our skills to resolve unfamiliar situations
		1.6 Playing games and having fun Learning how to stay safe when playing online games	2.6 Playing games and having fun Understanding and applying the PEGI rating system for games	Unit 3.6 – We are avatar creators Who do we really know online?	Unit 4.6 - We are careful when talking to virtual friends Virtual friendship vs real friendship; who we can trust	Unit 5.6 - We are game changers Understanding how games developers make money	Unit 6.6 - We are safe gaming experts Creating and delivering advice on safe online gaming

Computing National Curriculum:

Key stage 1

Pupils should be taught to:

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- Create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content
- Recognise common uses of information technology beyond school
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Key stage 2

Pupils should be taught to:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- Understand computer networks including the internet; how they 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 results are selected and ranked, and 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
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.