Whole School Computing Curriculum Map 2014

Year Group	Term 1 Digital Literacy E-Safety Week	Term 1 Computer Networks and the Internet	Term 2 Information Technology	Term 3 Computer Science Programming	Term 4 Multimedia	Term 5 Computer Science & Computer Science Unplugged	Term 6 Information Technology Data Handling
EYFS	**Smartie the Penguin** http://kidsmart.org.uk/teachers/ks1/ Children understand that their password belongs to them. Children recognise the impact of good choices and consequences of wrong ones. Children understand that they need an adult with them when using the Internet. Children recognise who they can ask for help and know when they need help. Children understand that they need to share equipment and take turns.	**Identify technology and develop basic skills** Identify keyboard, monitor, mouse and uses of technology at school and home Open and close a program using the mouse Drag objects across the screen when using online activities Develop their mouse control Log on to a computer network such as the school's Learning Platform	**We are Successful** Children make a presentation which celebrates their achievements or special events in their life - Switched on ICT in the Early Years sample unit of work	**Controlling Objects** Children play with remote control cars and other 'push button' toys Use control toys in conjunction with stories, (e.g. dress Bee-bot up as a character such as Incy Wincy Spider, and see how many moves it will take to move up the waterspout). http://www.tts-group.co.uk/_RMVirtual/Media/Downloads/BEEBOT-How-To-1.pdf	**Make use of software, online games and apps** that allow pupils to create something new. Pupil should have opportunities to work with images, text and sound. Recognise their name on the keyboard and add it to a piece of work Explore a simple paint program and begin to use different brushes, tools and colours to create a picture on a given topic	**Talk about electronic equipment in real-life situations**, (e.g. traffic lights, scanners, microwaves, cash tills, etc.) and investigate how they work. Look around the school and environment at technology with control switches, (e.g. photocopier, alarms, washing machines, television sets). Online games and Apps for controlling objects	**Use appropriate internet-based games and activities to support their learning** **Crick Web -** http://www.crickweb.co.uk/Early-Years.html **Topmarks Search -** http://www.topmarks.co.uk/Search.aspx?Subject=37 **Primary Interactive -** http://www.primaryinteractive.co.uk/early.htm
1	**Digiduck's Big Decision** http://kidsmart.org.uk/teachers/ks1/digiduck.aspx Children begin to understand what personal information is	**Basic word processing skills** **Touch Type with Nessy Fingers** Use index fingers (left and right hand) on a	**We are Storytellers** Using 2Create a story	**Bee Bots – mats, storytelling and games** http://www.tts-group.co.uk/_RMVirtual/Media/Downloads/BEEBOT-How-To-2.pdf Use Bee-Bot software –	**Art & Images** **Music Software** Any painting and music packages / apps Music – 2Simple Basic word processing skills 2Simple – 2 Do It	**Modelling software** Sherston examples:- Charlie Chimp's Modelling Party Flobot Little Brown Bear on the Farm	**Data Handling – Sorting and organising data** The Topmarks website has a range of resources for organising and

	and who you can share it with, including the need to keep passwords private. Children begin to recognise the need to know who they are sharing their learning with online and recognise the difference between real and imaginary online experiences. Children know who to tell when they see something that makes them uncomfortable and make sure an adult knows what they are doing. Children recognise the Internet as an exciting place to be but understand the need for a balance in how they spend their time and make good choices about age appropriate activities.	keyboard to build words and sentences. Know when and how to use the SPACE BAR (thumbs) to make spaces between words. **Navigating the WWW** **Common uses of IT beyond school** Viewing webpages, Navigating a website Entering a website address E-Safety Infant Encyclopaedia http://simonhaughton.typepad.com/files/year-1.pdf http://www.parkfieldict.co.uk/infant/		onscreen representation of Bee-bot and the mats Solving problems with Bee-Bots 2Simple Infant Toolkit – 2Go	Use index fingers (left and right hand) on a keyboard to build words and sentences. Know when and how to use the SPACE BAR (thumbs) to make spaces between words.	Yourself How a supermarket works http://www.code-it.co.uk/csplanning.html	sorting data. Primary games maths pack 2 allows children to organise their own data.
2	**Lee & Kim's Big Adventure CEOP** http://www.thinkuknow.co.uk/5_7/leeandkim/ Children understand what personal	**Basic word processing skills** **Touch Type with Nessy Fingers** Use keyboard to enter	**We are Engineers** Create an instruction manual using Powerpoint	**How to Train your Robot / Mazes - Dr Technico & Bee-Bots** http://drtechniko.com/2012/04/21/teaching-the-how-to-train-your-robot-class/	**Combining text, images & sound** (e.g.) 2CreateaStory Capture images, sound, text Video and digital camera, sound recording	**Algorithms** **What are they?** **Sorting algorithms** iPad apps: Cato's hike, A.L.E.X, move the turtle, beebot and Daisy dino are key apps	**Data Handling – sort, capture and present data** MAPE Sorting Games Branching databases Bar Charts Venn & Carroll diagrams

	information is and who you can share it with, including the need to keep passwords private. Children begin to recognise the need to know who they are sharing their learning with online and recognise the difference between real and imaginary online experiences. Children know who to tell when they see something that makes them uncomfortable and make sure an adult knows what they are doing. Children recognise the Internet as an exciting place to be but understand the need for a balance in how they spend their time and make good choices about age appropriate activities.	text (index fingers left and right hand). Know when and how to use the RETURN/ENTER key. Use SHIFT and CAPS LOCK to enter capital letters. Use DELETE and BACKSPACE buttons to make spaces between words **Internet research and safe Searching** Simple searching, locating and recording information Copy and paste from the Internet to another document E-Safety		**One key Logo** http://scratch.redware.com/project/one-key-logo-play-button **Bee-Bot slalom buzzing game – Queensland guide**	Basic word processing skills Use keyboard to enter text (index fingers left and right hand). Know when and how to use the RETURN/ENTER key. Use SHIFT and CAPS LOCK to enter capital letters. Use DELETE and BACKSPACE buttons to	Thinking Myself http://games.thinkingmyself.com/ http://travelingcircuits.blogspot.co.uk/ Rommy Robot http://www.sandaigprimary.co.uk/fun/rommy_robot.html TESiboard http://www.iboard.co.uk/teacher/jlisaw8 Human Carne Algorithm http://www.code-it.co.uk/csplanning.html	
3	**Hector's World** http://hectorsworld.netsafe.org.nz/ Children recognise the need to keep personal information and passwords private. They recognise the need for a secure password. Children understand	**Re-vist Basic word processing skills** **Touch Type with Nessy Fingers** Use keyboard to enter text (index fingers left and right hand). Know when and how to	**We are presenters** Using movie maker OR **An introduction to Scratch** Word cards 1-12 Additional Scratch cards http://www.teach-ict.com/contributors/liane_okane.htm	**Probots** **Cracking the Code** **http://www.bbc.co.uk/programmes/p01661yg** Program the Roamert to draw different shapes and patterns using the repeat command. Fix	**Animation / Movie Making** Windows Movie Maker / Photo story Text, images and sound multimedia Video editing project	**Algorithms** Jam Sandwich bot Magic Trick - http://www.resources.digitalschoolhouse.org.uk/algorithms-a-programs/190-teaching-algorithms	**Infographics** Create your own infographics combining global and local data by adding images, text and data to ready-made themes easel.ly and infogr.am. A successful Year 3 student project.

	that an adult needs to know what they are doing online and understand how to report concerns, including cyberbullying. Children understand that any personal information they put online can be seen and used by others.	use the RETURN/ENTER key. Use SHIFT and CAPS LOCK to enter capital letters. Use DELETE and BACKSPACE buttons to make spaces between words **What is the Internet?** Drawing the Internet Learn about the telegraph and Morse code History of the net Walking the net activity Modelling the net **Evaluating Digital Content** Understanding media advertising - http://www.mediasmart.org.uk/		bugs in faulty code. Cops & Robbers / MFL Ideas http://www.resources.digitalschoolhouse.org.uk/?searchword=probots&searchphrase=any&limit=&ordering=newest&view=search&Itemid=92&option=com_search http://nrich.maths.org/6288 OR Creating a Simple Scratch Program to Investigate Angles of Regular 2D Shapes Computer Science Integrating with Maths Planning http://www.code-it.co.uk/cs/loops2dshapes.htm OR use LOGO		Computer Science Unplugged • Image representation • Error detection • Searching algorithms • Sorting algorithms	
4	**Captain Kara and the SMART Crew** http://www.childnet.com/resources/the-adventures-of-kara-winston-and-the-smart-crew	**Re-vist Basic word processing skills** **Touch Type with Nessy Fingers** Use keyboard to enter	**We are Botanists** Create a tree diagram for sorting plants and recreate this tree diagram structure in PowerPoint using hyperlinks - Switched on	**Scratch Projects** Scratch lesson Plans 1-10 from the Irish Computer Society **Lego Workshop**	**PPT interactive stories with choices and hyperlinks** (selection , linking slides) The child puts two buttons onto a slide and	**Computer Science Unplugged http://csunplugged.org/activities** • Selection • Repetition	**Class Survey Analyse & Present Data** Create a questionnaire online to collect data. Enter into Excel

	Children understand the need for rules to keep them safe when exchanging ideas online. Children understand that an adult needs to know what they are doing online and understand how to report concerns, including cyberbullying. Children recognise the need to choose age-appropriate games to play on their devices, and when to limit use. Children recognise the need to protect their devices from viruses. Children understand that any personal information they put online can be seen and used by others. Children recognise that they can use online tools to collaborate and communicate with others and the importance of doing this responsibly, choosing age-appropriate websites. Children recognise the effect their writing or images might have on others.	text (index fingers left and right hand). Know when and how to use the RETURN/ENTER key. Use SHIFT and CAPS LOCK to enter capital letters. Use DELETE and BACKSPACE buttons to make spaces between words **Know the difference between the web and the Internet** The birth of the Web **Search technologies – how results are selected and ranked** https://sites.google.com/site/primaryictitt/home/key-stage-2/search-engines https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxwcmltYXJ5aWN0aXR0fGd4OjU5NDliNjA2MjY2ZTJkNTQ	Computing sample unit of work		then links them to other slides - creating in effect, a branch tree. Children create interactive comic books or alterative endings to stories they are studying.	• Variables **How to Teach Programming games** http://bit.ly/tp-games	spreadsheet ,graph data and analyse Introduce simple formulae **http://www.code-it.co.uk/dlplanning/spreadsheet/spreadsheet.htm**