Whole School Curriculum Map   **2015-16 to 2016-17 (2 Year Rolling Programme)**
Specific ICT and Computing - Focus (NC) with links to IPC Units   **Subject: COMPUTING**

All Saints Church of England Primary School

Year A	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit name	*'I'm Alive'*	*'Let's celebrate'*	*'What's it made of?'*	*'Earth- our home'*	*'Green Fingers'*	
Year 1 & 2 Nat Curric Content	**Algorithms** Predict, estimate and create a set of instructions to control a floor robot to move between two or more fixed points involving distance and turn.	**Hardware & Processing** Recreate sounds of a fireworks display and record the sounds on an EasiSpeak or Sound button on Fronter.	**Data & Data Representation** Use a graphing package and a simple database to collect, organise and classify data, asking and answering questions.	**Information Technology** Make an electronic class book about e.g different toys. .	**Programming & Development** Beebot or Daisy the Dinosaur App Create a sequence of instructions to meet one of the challenges. Debug (alter) until correct.	**Communication & Networks** FauxPaw video from iKeepSafe.org CEOP Thinkuknow resources, based on Hector's World www.thinkuknow.co.uk/5_7/ (lessons 1 – 5) School email system or Fronter SMART Rule – Only send and read MESSAGES with people you know. SMART Rule- Keep passwords and other personal information SAFE
Unit name	*'Footprints from the Past'*	*'Active Planet'*	*'Material World'*		*'Saving the World'*	
Year 3 & 4 National Curric Content	**Algorithms** Create an animation with changing slides and a sprite that moves. Use speech bubbles to add information Scratch activity cards and tutorials at http://scratch.mit.edu/help/	**Information Technology** Combine text, graphics and possibly other features to create both printed documents and multimedia presentations e.g. make a poster for a poem with text, images, relevant colours etc.	**Data & Data Representation** Research information and enter data into a database. Use it to ask and answer straightforward questions and produce bar charts.		**Programming & Development** Instruct turtle to create pictures using simple shapes Use 2Go or online turtle program such as http://www.mathplayground.com/mathprogramming.html	**Communication & Networks** Share work and work collaboratively through a shared online space ESAFETY	**Hardware & Processing** Take a picture through the class windows and edit pictures to show changes. Keep photos as separate pictures and the play together using Photostory or Windows Movie Maker. - More able could add music and voice over to explain the changes
Unit name	*'Being Human'*	*'Bronze to Bio-plastic' '*	*'Fascinating Forces' '*		*'Space Explorers'*	*'Extreme Survivors'*
Year 5 & 6 National Curric Content	**Communication & Networks** Use advanced search functions in Google, e.g. quotations. Understand websites such as Wikipedia are made by users (link to E-Safety) Use strategies to check the reliability of information, e.g. cross checking with books. Use their knowledge of domain names to aid their judgment of the validity of websites. **ESAFETY**	**Information Technology** Plan a presentation, combine from a range of sources, organise and refine to suit purpose and audience e.g. create a presentation about a focus location- Create an interactive map by linking spots with hyperlinks to information pages.	**Data & Data Representation** Design and use a spreadsheet to solve a problem by changing variables. Answer 'what if questions' Create spreadsheet for business plan using formulas	**Information Technology** Create a game linked to topic **e.g.** get a pharaoh to the pyramids without be attacked by the mummies. http://csamarktng.vo.msecnd.net/kodu/pdf/kodu_curriculum_keyboard_mouse.pdf or type in http://tinyurl.com/q65qtoo (topic link)	**Programming & Development** Create games with story sections and levels. Link to topics or retelling a story in Literacy e.g. find ingredients to make an Indian recipe or guide a story character through different problems in a story. http://scratch.mit.edu/help/ or http://www.simonhaughton.co.uk/scratch-programming/	**Hardware & Processing** Create radio programme or sonic postcard by combining sounds **e.g.** create music to go with a song that they've written and record it being performed using Audacity

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Year B	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit name	*'Super humans'*	*'People of the Past'*	*'All Dressed Up'*	*'Live and let live'*	*'Flowers and insects'*	
Year 1 & 2 National Curric Content	**Hardware & Processing** Take pictures of different exercises and edit and add labels to suggest how they will help. **or** Take a series of photographs to create an animation or slideshow to illustrate a concept.	**Information Technology** Combine text, images and possibly other features to create either a printable document or a simple multimedia presentation. Ensure all choices suit the purpose.	**Communication & Networks** Share and comment on work online, developing understanding about appropriate behaviour and internet safety Work with another class to create a shared text through email/forums.	**Algorithms** Predict, estimate and create a set of instructions to control a floor robot to move between two or more fixed points involving distance and turn.	**Data & Data Representation** Use a graphing package and a simple database to collect, organise and classify data, asking and answering questions.	**Programming & Development** Create a set of online instructions to meet a challenge e.g. a shape or right angle.
Unit name	*'How Humans Work'*	*'Chocolate'*	*'Living Together'*	*'Turn it Up!'*	*'Time and Place, Earth and Space'*	
Year 3 & 4 National Curric Content	**Algorithms** Create a simple game where if a conditional statement is met then they start again or lose e.g. don't touch the edge of a maze. Ideas can be found at http://scratch.mit.edu/help/ or http://www.simonhaughton.co.uk/scratch-programming/	**Hardware & Processing** Know and can use a range of input and output devices e.g. mouse, keyboard, printers. Act out how information s sent to and from these devices.	**Communication & Networks** Use at least two online communication methods (eg online discussion, surveys, quizzes, blogs, wikis, shared online folders, web quests) through the Learning Platform in topic work **ESAFETY**	**Programming & Development** Create a world to settle in. What resources would be needed e.g. rivers, mountains, trees. Create the world and navigate a sprite around it. Use Kodu guidance on http://csamarktng.vo. msecnd.net/kodu/ pdf/kodu_curriculum_keyboard_mouse.pdf or type in **http://tinyurl.com/q65qtoo**	**Data & Data Representation** Collect, find, organise and interpret information using graphing and a branching database e.g. Create database to solve sorting problems in Science e.g. sort what material a mystery sample is.	**Information Technology** Plan, design and create and improve their own multimedia presentation showing awareness of audience. E.g. Create a PhotoStory presentation that addresses Bullying and strategies to deal with it.
Unit name	*'Existing, Endangered, Extinct'*	*'Out of Africa'*	*''Fairground'*		*The Great ,the Bold and the Brave'- (Greeks)*	
Year 5 & 6 National Curric Content	**Data & Data Representation** Solve a problem by planning and carrying out data collection, by organising and analysing data using a database, and by drawing conclusions and presenting findings to a specific audience	**Communication & Networks** Regularly update a blog during a term. Add photos and links to related sites or other blogs. **ESAFETY**	**Hardware & Processing** Know the difference between hardware and application software, and their roles within a computer system.	**Programming & Development** Create a simple quiz app on any curriculum area. Instructions for creating a simple app http://www.appinventor.org/apps/hellopurr/hellopurr.pdf	**Information Technology** Plan a presentation including appropriate software, combine from a range of sources, organise and refine to suit purpose and audience	**Algorithms** Create a simple game such as noughts and crosses or a guessing game using Navigate Python/Small Basics programming – Guide for using Small Basics http://tinyurl.com/pdd78vb

Please note that E-safety is continuously taught throughout the year but Communication and Networks units provide particularly strong links to this. Safer Internet Day in February is also identified by the school to raise e-safety issues.

Hardware and Processing and Communication and Networks skills will also overlap all ICT and Computing units.