

Computing Intent, Implementation and Impact Statement.

Phase	Topic	Intent	Unit Outcomes
LKS2 Year 3	We are game developers	This unit will enable the children to: create an algorithm for an animated scene in the form of a storyboard, write a program in Scratch to create the animation and correct mistakes in their animation programs.	Children will create an algorithm for an animated scene in the form of a storyboard Break the scene down into small sections of action and dialogue Write a program in Scratch to create the animation Put the blocks of their Scratch script in order.
LKS2 Year 3	We are cryptographers	This unit will enable the children to: develop a number of strategies for finding errors in programs, build up resilience and strategies for problem solving, increase their knowledge and understanding of Scratch and recognise a number of common types of bug in software.	Correct 'off-by-one' errors in loops Improve the performance of the circle drawing program Get the dialogue in the joke program to work in sequence Experiment with the speed variable and other factors in the racing car simulator
LKS2 Year 3	We are artists	This unit will enable the children to: understand the physical hardware connections necessary for computer networks to work, understand some features of internet protocols, understand some diagnostic tools for investigating, network connections and develop a basic understanding of how domain names are converted to IP addresses.	Name some of the hardware that connects computers Take part in a simulation of how data is transmitted via the internet Use ping, ipconfig and tracert commands Appreciate the implications of how networks work for their online safety
LKS2 Year 3	We are web developers	This unit will enable the children to: develop a basic understanding of how email works, gain skills in using email, be aware of broader issues surrounding email, including 'netiquette' and e-safety and work collaboratively with a remote partner experience video conferencing.	Create an algorithm for a game Create images and sounds for use in their game Use sequences of instructions. Detect errors in their game
LKS2 Year 4	We are adventure gamers	This unit will enable the children to: develop an educational computer game using, selection and repetition, understand and use variables, start to debug computer programs and recognise the importance of user interface design, including consideration of input and output.	Create an algorithm for a game Create images and sounds for use in their game Use sequences of instruction and detect errors in their game
LKS2 Year 4	We are computational thinkers	This unit will enable the children to: design and make an on-screen prototype of a computer-controlled toy understand different forms of input and output (such as sensors, switches, motors, lights and speakers) and design, write and debug the control and monitoring program for their toy.	Design an interactive educational game Develop an interactive educational game Put Scratch blocks into the right order for their game Use the <i>if/then/else</i> block correctly Use the keyboard for input and the screen for output.
LKS2 Year 4	We are advertisers	This unit will enable the children to: use one or more programs to edit music, create and develop a musical composition, refining, their ideas through reflection and discussion, develop collaboration skills and develop an awareness of how their composition can enhance work in other media.	Explain how digital technology contributes to creating music Create a simple composition using sequencing software Record samples for use in sequencing software Combine samples to produce a piece of music Export their composition in a standard compressed format
LKS2 Year 4	We are network technicians	This unit will enable the children to: understand some technical aspects of how the, internet makes the web possible, use HTML tags for elementary mark up, use hyperlinks to connect ideas and sources code up a simple web page with useful content and understand some of the risks in using the web.	Understand the difference between the web and the internet Understand that web pages are written and transmitted in HTML Know and use some simple HTML tags Edit the HTML for a web page Create web pages that do not reveal pupils 'personal information

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<p>Implementation</p>	<p>Knowledge Organisers: Children have access to key knowledge, language and meanings to understand Computing strands and to use these skills across the curriculum. At the beginning of each topic, children will complete a KWL table (what I know, what I want to know, what I have learnt) or thought shower so that teachers can tailor their lessons to meet the needs of the children in each class. They will be completed as a class and referred back to throughout each unit.</p> <p>Knowledge Walls: Computing Knowledge Walls throughout school focus on key knowledge, vocabulary and questions and exemplify the terminology used throughout the teaching of Computing across all four strands.</p> <p>Subject specific vocabulary: Identified through knowledge organisers and knowledge wall and highlighted to the children at the beginning of lessons. Geographical enquiry vocabulary and subject specific vocabulary based on each topic are available on mats for children to use in every lesson.</p> <p>Provision in EYFS: Children are given a secure grounding in the Prime Areas of learning, ensuring they have a good foundation on which to build through the specific areas, including understanding the World. Areas of provision are enhanced to ensure vocabulary understanding and extension and develop understanding of our local area.</p> <p>Assessment: The Computing teacher will assess children's understanding in Computing, and this is then recorded on a tracking sheet and used to inform Classroom monitor assessments. This data is then analysed to improve the children's learning in Computing.</p> <p>Approaches to teaching: A wide variety of teaching approaches are used in Computing lessons to ensure children make good progress, and all learning styles are catered for. Class teachers ensure there is a good balance of whole class, group work, including cooperative learning structures, and individual learning in Computing lessons all of which are tailored to the specific needs of the child.</p> <p>Consistent teaching sequence: Computing lessons will follow a clear and consistent teaching sequence, which will consist of a review of learning covered in previous lesson/s to ensure the knowledge is embedded before we move on. Specific topic related key vocabulary to be used and its meaning alongside each lesson. Children are taught the skills they are needed before embedding this by using the skill.</p> <p>Learning environment: The learning environment is designed to ensure children develop their geographical knowledge and continue to know more and remember more. Computing strand walls are drivers to this when teachers regularly make reference to them during lessons and at other regular times during the lessons.</p> <p>Research: Children will be asked to research geographical aspects of places independently. This allows the children to have ownership over their curriculum and lead their own learning in geography.</p> <p>Basic skills: English and Maths skills are taught during stand-alone lessons but may be revisited in Computing lessons also so children can apply and embed the skills they have learnt in a purposeful way.</p>
<p>Impact</p>	<p>Our approach to the curriculum results in a fun, engaging, and high-quality computing education. The quality of children's learning is evident in each lesson folder. Evidence such as this, is used to feed into teachers' future planning, and as a topic-based approach continues to be developed, teachers are able to revisit misconceptions and knowledge gaps in computing when teaching other curriculum areas. This supports varied paces of learning and ensures all pupils make good progress.</p> <p>Much of the subject-specific knowledge developed in our computing lessons equip pupils with experiences which will benefit them and prepare them for their education in UKS2 and beyond in computing. From research methods, use of presentation and creative tools and critical thinking, Computing at Baguley Hall Primary school gives children the building blocks that enable them to pursue a wide range of interests and vocations in the next stage of their education journey.</p>