Our Learning in Computing

Intent:
The Teach Computing Curriculum has been written to support all pupils. Each lesson is sequenced so that it builds on the learning from the previous lesson, and where appropriate, activities are scaffolded so that all pupils can succeed and thrive.

KS1 and KS2 children should be taught:
• Children must have an acute understanding of how to stay safe online.
•Children must have a broad range of computational skills that allow them to manipulate technology in a variety of useful ways.
• A wide variety of curriculum subjects are linked and taught through computing, equipping pupils with twenty-first century skills to thrive in their future and achieve life success.
• The computing curriculum aims to empower children to become fluent in the use of a variety of technology and be capable in computational thinking.
• The computing curriculum provides multiple opportunities for learning to be extended by taking it home through secure logins and laptop and iPad free loan schemes. Everyone has home access to IT equipment and broadband free of charge if they need it.
• E-safety will be a regular feature in lessons and homework.
• The curriculum offer aims to raise aspiration of children and motivate pupils to use technology to support and develop their love of learning.

Year 1	Year 2
Technology around us - recognizing technology in school and using it responsibly.	Information technology around us - identifying IT and how its responsible use improves our world in school and beyond
Digital painting - choosing appropriate tools in a program to create art and make comparisons with working non digitally.	Digital photography - capturing and changing digital photographs for different purposes.
Moving a robot - writing short algorithms and programs for floor robots and predicting program outcomes.	Robot algorithms - creating and debugging programs and using logical reasoning to make predictions.
Grouping data - exploring object labels, then using them to sort and group objects by properties.	Pictograms - collecting data in tally charts and using attributes to organise and present data on a computer.
Digital writing - sing a computer to create and format text, before comparing to writing non-digitally.	Digital music - using a computer as a tool to explore rhythms and melodies, before creating a musical composition.
Programming animations - designing and programming the movement of a character on screen to tell stories.	Programming quizzes - designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.

Year 3/4	Year 5/6
Connecting computers - identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks. Stop-frame animation - capturing and editing digital still images to produce a stop frame animation that tells a story. Sequencing sounds - creating sequences in a block-based programming language to make music. Branching databases - building and using branching databases to group objects using yes/no questions. Desktop publishing - creating documents and modifying text, images and page layouts for a specific purpose. Events and actions in programs - writing algorithms and programs that use a range of events to trigger sequences of actions.	Systems and searching - recognising IT systems in the world and how some can enable searching on the internet. Video production - planning, capturing, and editing video to produce a short film. Selection in physical computing - exploring conditions and selection using a programmable microcontroller. Flat-file databases - using a database to order data and create charts to answer questions. Introduction to vector graphics - creating images in a drawing program by using layers and groups of objects. Selection in quizzes - exploring selection in programming to design and code an interactive quiz
Autumn 1	
Year 1	Year 2
1 Technology around us 2 Using technology 3 Developing mouse skills 4 Using a computer keyboard 5 Developing keyboard skills 6 Using a computer responsibly	1 What is IT? 2. IT in school 3 IT in the world 4 The benefits of IT 5 Using IT safely 6 Using
Year 3/4	Year 5/6
1 How does a digital device work? 2 What parts make up a digital device? 3 How do digital devices help us? 4 How am I connected? 5 How are computers	1 Systems 2 Computer systems and us 3 Searching the web 4 Selecting search results 5 How search results are ranked 6 How are searches

connected? 6 What does our school network look like?	influenced
Autumn 2	
Year 1	Year 2
1 How can we paint using computers? 2 Using shape and lines 3 Making careful choices 4 Why did I chose that? 5 Painting all by myself 6 Comparing computer art and painting	1 Taking photographs 2 Landscape or portrait? 3 What makes a good photograph? 4 Lighting 5 Effects 6 Is it real?
Year 3/4	Year 5/6
1 Can a picture move? 2 Frame by frame 3 What's the story? 4 Picture perfect 5 Evaluate and make it great! 6 Lights, camera, action!	1 What is video? 2 Filming techniques 3 Using a storyboard 4 Planning a video 5 Importing and editing video 6 Video evaluation
Spring 1	
Year 1	Year 2
1 How can we paint using 1 Buttons 2 Directions 3 Forwards and backwards 4 Four directions 5 Getting there 6 Routes	1 Giving instructions 2 Same but different 3 Making predictions 4 Mats and routes 5 Algorithm design 6 Debugging
Year 3/4	Year 5/6
1 Introduction to Scratch 2 Programming sprites 3 Sequences 4 Ordering commands 5 Looking good 6 Making an instrument	1 Connecting Crumbles 2 Combining output components 3 Controlling with conditions 4 Starting with selection 5 Drawing designs 6 Writing and testing algorithms
Spring 2	
Year 1	Year 2
1 Label and match 2 Group and count 3 Describe an object	1 Counting and comparing 2 Enter the data 3 Creating pictograms

4 Making different groups 5 Comparing groups 6 Answering questions	4 What is an attribute? 5 Comparing people 6 Presenting information
Year 3/4	Year 5/6
1 Yes or no questions 2 Making groups 3 Creating a branching database 4 Structuring a branching database 5 Using a branching database 6 Two ways of presenting information	1 Creating a paper-based database 2 Computer database 3 Using a database 4 Using search tools 5 Comparing data visually 6 Databases in real life
Summer 1	
Year 1	Year 2
1 Exploring the keyboard 2 Adding and removing text 3 Exploring the toolbar 4 Making changes to text 5 Explaining my choices 6 Pencil or keyboard	1 How music makes us feel 2 Rhythms and patterns 3 How music can be used 4 Notes and tempo 5 Creating digital music 6 Reviewing and editing music
Year 3/4	Year 5/6
1 Words and pictures 2 Can you edit it? 3 Great template! 4 can you add content? 5 Lay it out 6 Why desktop publishing?	1 The drawing tools 2 Creating images 3 Making effective drawings 4 Layers and objects 5 Manipulating objects 6 Creating a vector drawing
Summer 2	
Year 1	Year 2
1 Comparing tools 2 Joining blocks 3 Make a change 4 Adding sprites 5 Project design 6 Following my design	1 Scratch jr recap 2 Outcomes 3 Using a design 4 Changing a design 5 Designing and creating a program 6 Evaluating
Year 3/4	Year 5/6
1 Moving a sprite 2 Maze movement 3 Drawing lines 4 Adding features	1 Exploring conditions 2 Selecting outcomes 3 Asking questions 4 Planning a quiz

5 Debugging movement 6 Making a project	5 Testing a quiz 6 Evaluating a quiz