Edale Rise Primary and Nursery School: Computing Curriculum – Coding

At Edale Rise children partake in the 'Everyone Can Code' curriculum. This programme systematically builds children's understanding of the the fundamental principles and concepts of computer science. Once completed in Year 6, children will have exceeded the expectations of the computing programme of study for primary schools and will be more than prepared for the challenges of the Key Stage 3 and 4 coding curriculum.

Age	EYFS, Years 1 and 2	Lower Key Stage 2		Upper Key Stage 2	
Apps	Spark Academy Tynker: Space Cadet	Tynker: Space Cadet Tynker: Dragon Spells		Tynker: Dragon Spells Swift Playground: Learn to Code 1 and 2	
Overview	Begin to think like coders with hands-on explorations of coding concepts using visual-based apps.	Children explore fundamental coding concepts and practise thinking like coders using visual- based apps.		Learn fundamental coding concepts using real Swift code	
Key Concepts	• Sequence commands • Strategies • Creating loops • Debugging • Using events • Conditional Statements • Building a program	• Building algorithms • Debugging • Creating loops • Decomposing Code	• Abstraction • Functions • Conditional Statements • Conditional Loops • Input and Output • Designing a Game	• commands • Functions • For Loops • Conditional Code • Logical Operators • While Loops • Algorithms	• Variables • Types • Initialisation • Parameters • World Building • Arrays
NC Objectives	• 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	• 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		• 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	
Teacher Documents	• Get Started with Code 1	• Get Started with Code 2		• Learn to Code 1 & 2	

Edale Rise Primary and Nursery School: Computing Curriculum – Being Creative with ICT

From EYFS – Year 6, children are also taught to be responsible, competent, confident and creative users of information and communication technology. Pupils use tablets and laptops to create projects that enrich their topics of study. Children use technology to create music, photography, drawing and audio-visual projects. During these projects children have develop confidence in unfamiliar technologies and analytically solve problems to achieve desired outcomes.

	Drawing	**Photo**	**Video**	**Music**
Apps	Tayusi Sketches School, Key Note, Pages	Camera, Photos, Key Note	Camera, Clips, I-Movie	Garage Band, Key Note
Overview	Students will learn skills like balance and symmetry, making lines, shapes, shading, colour and texture so they can illustrate with word art, doodling, portraits and logo design.	Using the iPad camera and the Photos app, they learn to identify and frame compelling subjects, experiment with light and shadow, and explore all aspects of composition — from point of view to depth to symmetry.	Students will learn about composition, lighting, camera angles, pacing and how to establish setting. Video can be used to create short films, adverts and documentaries.	Students learn to create and sample beats, arrange tracks and record vocals. They learn chord structure, drumbeats and song composition so they can open up new ways to convey themes and ideas with music.
Examples of Projects	• Create a self-portrait • Landscapes based on photos taken • Imitate by 'tracing' popular pieces • Create animations from drawings •	• Create a photo story or a create a 'story in one photo' • Capture a sequence of scientific phenomena • Capture a 'Feeling'	• Create an advertisement for a class novel • Create a documentary about an aspect of the natural world studied in class • Create a short film based on a piece of creative writing • Capture a sequence of scientific phenomena	• Create pieces to accompany a piece of art • Create pieces to complement poetry or a reading from a story/descriptive piece of writing
NC Obj. Key Stage 1	• use technology purposefully to create, organise, store, manipulate and retrieve digital content • recognise common uses of information technology beyond school			
NC Obj. Key Stage 2	• 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			
Teacher Documents	• Everyone Can Create • Young Children can Create • Drawing Project Guide	• Everyone Can Create • Young Children can Create • Photo Project Guide	• Everyone Can Create • Young Children can Create • Video Project Guide	• Everyone Can Create • Young Children can Create • Music Project Guide