

Computing Overview and Intent– Crackley Bank Primary School

	Autumn 1 Computing systems and networks	Autumn 2 Creating media	Spring 1 Data and information	Spring 2 Programming A	Summer 1 Creating media	Summer 2 Programming B
Reception	Technology in my classroom What equipment do we have to support our learning?	Digital media Using the interactive white board; drawing/ writing	Data Collecting data in simple ways practically	Human Algorithms Learn about making and following instructions	Digital devices Children logging on to devices.	Robot algorithms Moving a programmable robot
Year 1	Technology around us Recognising technology in school and using it responsibly	Digital painting Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	Grouping data Exploring object labels, then using them to sort and group objects by properties.	Moving a robot Writing short algorithms and programs for floor robots, and predicting program outcomes.	Digital writing Using a computer to create and format text, before comparing to writing non-digitally	Programming animations Designing and programming the movement of a character on screen to tell stories
Year 2	Information technology around us Identifying IT and how its responsible use improves our world in school and beyond.	Digital photography Capturing and changing digital photographs for different purposes.	Pictograms Collecting data in tally charts and using attributes to organise and present data on a computer.	Robot algorithms Creating and debugging programs, and using logical reasoning to make predictions.	Making music Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	Programming quizzes Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.
Year 3	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.	Branching databases Building and using branching databases to group objects using yes/no questions.	Sequencing sounds Creating sequences in a block-based programming language to make music.	Desktop publishing Creating documents by modifying text, images, and page layouts for a specified purpose.	Events and actions in programs Writing algorithms and programs that use a range of events to trigger sequences of actions.
Year 4	The internet Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.	Photo editing Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled	Data logging Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	Repetition in shapes Using a text-based programming language to explore count-controlled loops when drawing shapes.	.Audio editing Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	Repetition in games Using a block-based programming language to explore count-controlled and infinite loops when creating a game.
Year 5	Computing and Networks Sharing Information Sharing information Identifying and exploring how information is shared between digital systems.	Creating Media – Video Editing Video editing Planning, capturing, and editing video to produce a short film.	File Data Bases Flat-file databases Using a database to order data and create charts to answer questions.	Selection in physical Computing Selection in physical computing Exploring conditions and selection using a programmable microcontroller.	Vector Drawing Vector drawing Creating images in a drawing program by using layers and groups of objects.	Selection in Quizzes Selection in quizzes Exploring selection in programming to design and code an interactive quiz.
Year 6	Internet Communication Internet communication Recognising how the WWW can be used to communicate and be searched to find information.	Webpage creation Webpage creation Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.	Introducing Spreadsheets Introduction to spreadsheets Answering questions by using spreadsheets to organise and calculate data.	Variables in Games Variables in games Exploring variables when designing and coding a game.	3D Modelling 3D modelling Planning, developing, and evaluating 3D computer models of physical objects.	Sensing Sensing Designing and coding a project that captures inputs from a physical device.

The school's intent for Computing learning focusses on developing a wealth of learning opportunities and transferrable skills explicitly within the Computing lesson and across other curriculum subjects. We teach our pupils to become responsible, competent and creative users of information and communication technology. The curriculum covers four areas: Creating Media, Data and handling through Data and information, Computing Systems and Networks and Computing Science through programming. We have adopted a spiral curricular approach to ensure that each strand taught is revisited each year, crucial knowledge is embedded and built on.

The curriculum is organised through the year alongside other curriculum subjects, so for example the Data handling is in the Spring term is to coincide with Science week, giving a purpose and focus for using data handling. Not only do we want children to be digitally literate and competent end-users of technology but through our computer science lessons we want them to develop creativity, resilience, problem-solving and critical thinking skills. This is why there are two opportunities during the year to practise using algorithms through programming.

Through our computing curriculum we aim to give our pupils the life-skills that will enable them to embrace and utilise new technology in a socially responsible and safe way in order to flourish. To ensure the social and emotional development of our children, Online Safety is taught robustly throughout the year alongside the units of work as well as through PSHE. We believe that if we present children with scenarios they may come across in their digital world in a safe environment then this will give them the skills and confidence to know what is right and wrong and ask for help when they need it.