The Computing Curriculum at John T Rice Infant and Nursery School

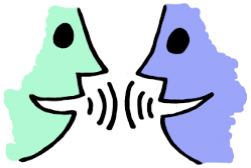
KS1 Progression

Our Computing Curriculum Intent

At John T Rice Infant and Nursery School, we recognise that children need a modern and relevant Computing education where their learnt skills will enable them to be successful citizens of the 21st century. They will have the confidence that they can use technology in their everyday life with passion and enthusiasm. We hope to prepare our digital citizens for a future that will be shaped by technology.

Our Curriculum Drivers.

As a school we have developed 3 curriculum drivers that shape our curriculum, bring out the aims and values of our school and respond to the needs of our school community.

Communication Skills	Mental Health and Resilience	The Wider World
	 	
Our children will be able to communicate effectively with adults and peers using a range of vocabulary and leave us being able to read, write and have a good mathematical knowledge.	Our children will understand how to lead a healthy lifestyle and be mindful of their mental well-being. They will grow as independent and resilient learners	Our children will understand about a range of multi-cultural and diverse communities to support them in becoming a global citizen.

A Computer Scientist will leave JTR enjoying and appreciating technology in their education and lives. They will understand the balance between effective use of technology and being able to have a healthy, safe online experience. They will be prepared to encounter and thrive in the digital world, while being prepared for the risks this may present.

Progression Document: Computing

EYFS ELG:	National Curriculum Subject Content
EYFS	**KEY STAGE ONE**
Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes	Pupils should be taught to: • 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 • Use technology purposefully to create, organise, store, manipulate and retrieve digital content • Recognise common uses of information technology beyond school • Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Computing Themes over the year						
Cycle A and Cycle B						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Cycle A Year 1/2	Grouping Data Internet Safety	Programming Preparing for programming	Programming- Bee-bots	Digital Writing	Digital Music	Pictograms
Cycle B Year 1/2	Technology around us	Programming B Programming animations	Digital painting	IT around us	Programming B Programming quizzes	Digital photography

Year 1 Computing Vocabulary		
Computing systems and networks - Technology around us	**Creating media - Digital painting**	**Creating media - Digital writing**
technology, computer, mouse, trackpad, keyboard, screen, double-click, typing.	paint program, tool, paintbrush, erase, fill, undo, shape tools, line tool, fill tool, undo tool, colour, brush style, brush size, pictures, painting, computers	word processor, keyboard, keys, letters, type, numbers, space, backspace, text cursor, capital letters, toolbar, bold, italic, underline, mouse, select, font, undo, redo, format, compare, typing, writing.
Data and information – Grouping	**Programming A - Moving a robot**	**Programming B – Programming animations**
object, label, group, search, image, property, colour, size, shape, value, data set, more, less, most, fewest, least, the same	Bee-Bot, forwards, backwards, turn, clear, go, commands, instructions, directions, left, right, route, plan, algorithm, program.	ScratchJr, command, sprite, compare, programming, area, block, joining, start, run, program, background, delete, reset, algorithm, predict, effect, change, value, instructions, design.

Year 2 Computing Vocabulary		
Computing systems and networks - Information technology around us	**Creating media - Digital music**	**Creating media - Digital photography**
Information technology (IT), computer, barcode, scanner/scan	music, quiet, loud, feelings, emotions, pattern, rhythm, pulse, pitch, tempo, rhythm, notes, create, emotion, beat, instrument, open, edit.	device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light sources, flash, focus, background, editing, filter, format, framing, lighting,
Data and information – Pictograms	**Programming A - Robot algorithms**	**Programming B - Programming quizzes**

more than, less than, most, least, common, popular, organise, data, object, tally chart, votes, total, pictogram, enter, data, compare, objects, count, explain, attribute, group, same, different, conclusion, block diagram, sharing	instruction, sequence, clear, unambiguous, algorithm, program, order, prediction, artwork, design, route, mat, debugging, decomposition	sequence, command, program, run, start, outcome, predict, blocks, design, actions, sprite, project, modify, change, algorithm, build, match, compare, debug, features, evaluate, decomposition, code.

Skills and Knowledge progression

Breadth of Study	Year 1	Year 2
Computer Science 	• To be able to make predictions. • To know what algorithms are. • To know how algorithms are implemented. .	• To be able to make logical predictions. • To know that programs follow precise instructions. • To know what algorithms are as sequences.
Information Technology 	• To be able to use digital technology to share and retrieve content. • To be able to edit digital technology.	• To be able to organise content on digital devices.

Digital Technology 	• To be able to keep safe using digital technology. • To know that information on the internet can be seen by others.	• To know how Computing is used for different purposes. • To know how to keep safe and show respect when using the internet.