The T-RF Computing Curriculum Coverage KS1

		Year 1	Year 2
Computer Science	**a**	• I can explain that an algorithm is a set of instructions.	• I can explain an algorithm is a set of instructions to complete a task.
	b	• I know that an algorithm written for a computer is called a program.	• I know I need to carefully plan my algorithm so it will work when I make it into code.
	c	• I can work out what is wrong when the steps are out of order in instructions.	• I can design a simple program that achieves a purpose.
	d	• I can say that if something does not work how it should it is because my code is incorrect.	• I can find and correct some errors in my program.
	e	• I can try and fix my code if it isn't working properly.	• I can say what will happen in a program.
	f	• I can make good guesses of what is going to happen in a program. For example, where the turtle might go.	• I can spot something in a program that has an action or effect (does something).

The T-RF Computing Curriculum Coverage KS1

		Year 1	Year 2
Information Technology	**a**	• I can sort sound, pictures and text.	• I can organise data – for example, using a database
	b	• I can add sound, pictures and text to a program.	• I can find data using specific searches
	c	• I can change content on a file such as text, sound and images.	• I can use several programs to organise information
	d	• I can name my work.	• I can edit digital data such as data in music composition software.
	e	• I can save my work.	• I can name, save and find my work.
	f	• I can find my work.	• I can include photos, text and sound in my creations.

The T-RF Computing Curriculum Coverage KS1

		Year 1	Year 2
Digital Literacy	**a**	• I can say what technology is.	• I can find information I need using a search engine.
	b	• I can say what examples of technology are in school.	• I know the consequences of not searching online safely.
	c	• I can say what examples of technology are at home.	• I can share work and communicate electronically
	d	• I know that a chair uses old technology and a smart phone uses new technology.	• I can report unkind behaviour and things that upset me online, to a trusted adult.
	e	• I can keep my login information safe.	• I can see where technology is used at school such as in the office or canteen.
	f	• I can save my work in a safe place such as 'My Work' folder.	• I can understand that my creations need similar skills to the adult world. e.g. The program used for collecting money for school trips

The T-RF Computing Curriculum Coverage Year3/4

		Year 3	Year 4
Computer Science	**a**	• I can make a real-life situation into an algorithm for a program.	• I can turn a real-life situation to solve into an algorithm, using a design that shows how I can accomplish this in code.
	b	• I can design an algorithm carefully, thinking about what I want it to do and how I can turn it into code.	• I can use repetition in my code. For example, using a loop that continues until a condition is met such as the correct answer being entered.
	c	• I am able to design a program thinking logically about the sequence of steps required.	• I can use timers within my program designs more accurately to create repetition effects.
	d	• I can experiment with timers in my programs	• I can use selection (decision) in my programming. For example, using an 'if statement' for a question being asked and the program takes one of two paths
	e	• I can experiment with the effect of using repeat commands.	• I can use variables within my program and know how to change the value of variables
	f	• I can identify the difference in using the effect of a timer or repeat command in my code.	• I can use the user inputs and output features within my program, such as 'Print to screen'
	g	• I can read programs with several steps and predict what it will do.	• I can identify errors in my code by using different methods, such as steeping through lines of code and fixing them
	h	• I can identify different ways that the internet can be used for communication.	• I can read programs that contain several steps and predict the outcomes with increasing accuracy
	i	• I can use email to respond to others appropriately and attach files.	• I recognise the main component parts of hardware which allow computers to join and form a network
	j		• I understand that network and communication components can be found in many different devices which allow them to join the internet

4

The T-RF Computing Curriculum Coverage Year 3/4

		Year 3	Year 4
Information Technology	**a**	• I can carry out searches to find digital content on a range of online systems, such as an internet search engine.	• I understand the purpose of a search engine and the main features within it
	b	• I can collect data and input it into software.	• I can look at information on a webpage and make predictions about the accuracy of information contained within it
	c	• I can analyse data using features within software to help such as formula in spreadsheets	• I can create and improve my solutions to a problem based on feedback. For example, create a program
	d	• I can present data and information using different software	• I can review solutions that others have created, using a checklist of criteria.
	e	• I can consider what the most appropriate software to use when given a task by my teacher.	• I can work collaboratively to create content and solutions
	f	• I can create purposeful (appropriate) content and attach this to emails.	• I can share digital content using a variety of applications

The T-RF Computing Curriculum Coverage Year 3/4

		Year 3	Year 4
Digital Literacy	**a**	• I can create a secure password.	• I have a good understanding of the online safety rules we learn at school.
	b	• I can explain the importance of having a secure password and not sharing it with others.	• I can demonstrate how to use different online technologies safely
	c	• I can explain the negative consequences of not keeping passwords safe and secure	• I can demonstrate how to use a few different online services safely
	d	• I understand the importance of keeping safe online and behaving respectfully.	• I know I have a right to privacy both on and offline
	e	• I can use communication tools respectfully and use good etiquette	• I recognise that my wellbeing can be affected by how I use technology
	f	• I can report unacceptable content and contact online in more than one way to a trusted adult.	• I can report with ease any concerns with content and contact online and know immediate strategies to keep safe.

The T-RF Computing Curriculum Coverage Year 5/6

		Year 5	Year 6
Computer Science	**a**	• I can make more complex real-life problems into algorithms for a program	• I can turn a complex programming task into an algorithm
	b	• I can test and debug my programs as I work	• I can identify the important aspects of a programming task (abstraction)
	c	• I can convert (translate) algorithms that contain sequence, selection and repetition into code that works	• I can decompose important aspects of a programming task in a logical way, identifying appropriate coding structures that would work
	d	• I can use sequence, selection, repetition, and some other coding structures in my code	• I can test and debug my program as I work on it and use logical methods to identify a cause of a bug.
	e	• I can organise my code carefully for example, naming variables and using tabs. I know this will help me debug more efficiently	• I can identify a specific line of code that is causing a problem in my program and attempt a fix
	f	• I can use logical methods to identify the cause of any bug with support to identify the specific line of code	• I can translate algorithms that include sequence, selection and repetition into code and nest these structures within each other
	g	• I know the importance of computer networks and how they help solve problems and enhance communication	• I can use inputs and outputs within my coded programs such as sound, movement and buttons and represent the state of an object
	h	• I recognise the main dangers that can be perpetuated via computer networks	• I can interpret (understand) a program in parts and can make logical attempts to put the separate parts together in an algorithm to explain the program as a whole
	i	• I can explain what personal information is and know strategies for keeping this safe.	• I can explain the difference between the internet and the World Wide Web.
	j	• I can use the most appropriate form of online communication according to the digital content.	• I can explain what a WAN and LAN is and describe the process of how access to the internet in school is possible

The T-RF Computing Curriculum Coverage Year 5/6

		Year 5	Year 6
Information Technology	**a**	• I can search precisely when using a search engine. For example, I know I can add additional words or removes words to help find better results	• I can use filters when searching for digital content
	b	• I can explain in detail how accurate, safe and reliable the content is on a webpage	• I can explain in detail how accurate and reliable a webpage and its content is
	c	• I can make appropriate improvements to digital work I have created	• I can compare a range of digital content sources and rate them in terms of content quality and accuracy
	d	• I can comment on how successful a digital solution is that I have created.	• I can consider the intended audience carefully when I design and make digital content
	e	• I can work collaboratively with others creating solutions to problems using appropriate software	• I can design and create my own online blogs
	f	• I can use collaborative modes to work with others and share it	• I can use criteria to evaluate the quality of my own and others digital solutions, suggesting refinements

The T-RF Computing Curriculum Coverage Year 5/6

		Year 5	Year 6
Digital Literacy	**a**	• I can show secure knowledge of online safety rules taught at school	• I can demonstrate safe and respectful use of a range of different technologies and online services
	b	• I can demonstrate the safe and respectful use of different online technologies and online services	• I can identify more discrete inappropriate behaviours online. For example, someone who may be trying to groom me or someone else.
	c	• I can always relate appropriate online behaviour to my right to have personal privacy	• I can use critical thinking to help me stay safe online.
	d	• I can not let my mental wellbeing or others be affected by use of online technologies and services	• I can show the value of protecting my privacy and others online