## Computing curriculum overview

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
Group							
N	Children will have access to high quality technology equipment throughout the school year so that they can tinker and develop their skill progression over time.  Understanding the world: Technology  • children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.  Enabling environment:  • Toy phones and cameras.  • Real and working technology such as CD players, torches, instruments, computer.  • Programmable toys including remote control cars and Beebots.						
R	Children will have access to high quality technology equipment throughout the school year so that they can tinker and develop their skill progression over time.  Understanding the world: Technology  • children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.  Enabling environment:  • Toy phones and cameras.  • Real and working technology such as CD players, torches, instruments, computer.  • Children get daily access to play a variety of games from sites such as busy things on the desktop computers.  • Children get to tinker with the beebots and attempt to navigate them around the mat.  • Using technology such as microwaves, ovens, washing machines for a purpose.						
1	Online Safety:	Online Safety:	Online Safety:	Online Safety:	Online Safety:	Online Safety:	

Understand where to go for help when he/she has concerns about content or content online.

### Digital Literacy – Technology around us

- 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.

### Information Technology - Data Groups and exploring Busy Things Statistics

- 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

Understand where to go for help when he/she has concerns about content or content online.

### Information Technology -Digital Media - Create, Share, Respond & Multimedia and Digital Writing

- 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.

**PLUGGED** 

Understand where to go for help when he/she has concerns about content or content online.

# Information Technology – create story using Puppet Pals 2 (app)

 Using technology purposefully to create digital content

Typing- Children are taught to use the keyboard and locate the keys. They aiming to be able to type 5 words per minute by the end of the academic year.

**PLUGGED** 

Understand where to go for help when he/she has concerns about content or content online.

### Information Technology -Digital Media - Create, Share, Respond & Multimedia and Digital Writing

- 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.

**PLUGGED** 

Understand where to go for help when he/she has concerns about content or content online.

### Programming - Computer Science - Coding Unit A Moving a Floor Robot

- 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

#### **UNPLUGGED**

Understand where to go for help when he/she has concerns about content or content online.

### Programming -Computer Science -Coding Unit B Online Early Coding:

- 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

**PLUGGED** 

2	about content or contact on the internet or other online technologies.  UNPLUGGED (except for 1 lesson)  Online Safety: Use technology safely and keep personal information private.	Online Safety: Use technology safely and keep personal information	Online Safety: Use technology safely and keep personal information	Online Safety: Use technology safely and keep personal	Online Safety: Use technology safely and keep personal information	Online Safety: Use technology safely and keep personal
	Digital Literacy - Uses of Computers  recognise common uses of information technology beyond school  UNPLUGGED  Information Technology - Data JIT Pictogram and JIT chart  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	private.  Programming - Computer Science - Coding Unit A Online Robots J2Code  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  PLUGGED	private.  Information Technology - Communication and Collaboration - My Busy Things  use technology purposefully to create, organise, store, manipulate and retrieve digital content  PLUGGED	Information Private.  Information Technology  - using Book Creator (app)  Uses technology to purposefully to create, organise, store, manipulate and retrieve digital content.  Use technology purposefully to create digital content, comparing the benefits of different programs.  Typing - Children are taught to type and achieve the standard of 8 words per minute (these should be from the year 2 spelling list and be	private.  Programming - Computer Science - Coding Unit B Programming with Scrat - Code.org:  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  PLUGGED	Information Technology - Creating Media - Digital Photography and Film  use technology purposefully to create, organise, store, manipulate and retrieve digital content  recognise common uses of information technology beyond school  Outdoor explorers project

	on the internet or other online technologies.  PLUGGED			displayed for children to copy).  PLUGGED		
3	Online Safety Use technology safely and respectfully, keeping personal information private.  Use technology safely and recognise acceptable and unacceptable behaviour.  Information Technology - Communication & Collaboration (Blogging) and Creating Media (J2e5):  • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration  • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of	Online Safety Use technology safely and respectfully, keeping personal information private.  Use technology safely and recognise acceptable and unacceptable behaviour.  Digital Literacy - Connecting Systems + networks & Hello Ruby:  understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration  use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Online Safety Use technology safely and respectfully, keeping personal information private.  Use technology safely and recognise acceptable and unacceptable behaviour.  Programming - Computer Science - Programming Unit A - Sequencing Code.org:  • design, write and debug programs that accomplish specific goals; solve problems by decomposing them into smaller parts  • use sequence, selection, and repetition in programs; work with various forms of input and output  PLUGGED	Online Safety Use technology safely and respectfully, keeping personal information private.  Use technology safely and recognise acceptable and unacceptable behaviour.  Information Technology - Branching Databases:  • 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	Online Safety Use technology safely and respectfully, keeping personal information private.  Use technology safely and recognise acceptable and unacceptable behaviour.  Programming - Computer Science - Programming Unit B - Sequencing Scratch Scene (Monologue):  design, write and debug programs that accomplish specific goals; solve problems by decomposing them into smaller parts  use sequence and various forms of input and output  PLUGGED	Online Safety Use technology safely and respectfully, keeping personal information private.  Use technology safely and recognise acceptable and unacceptable behaviour.  Information Technology – stop motion animation (app)  With support select and use a variety of software to accomplish specific goals.  Outdoor Explorers Project  PLUGGED

Information Technology - Digital Media - Creating Media - Audio Editing:  • work with variables and various forms of input and output  • 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    Multimedia & Digital Writing on Google Slides of Multimedia & Digital Writing on Google Slides writing on Google Slides of combine a variety of software (including internet; how they can oprovide multiple services, such as the world wide web; and the collaboration and collaboration 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    Information Technology - Computer Science - Programming Unit A - Multiple Sequences Scratch Scene – Dialogue: with support select and use a variety of software on a range of digital devices. With support select and use a variety of software on a range of software on a range of software on a range of for gerams, systems and content that accomplish given goals, including collecting, analysing, evaluating and gordential programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and data and information    Information Technology - Comci. Ife 3 (app)		programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information  PLUGGED	UNPLUGGED		PLUGGED		
PLUGGED from the year 4 spelling programs forms of input and output	4	Use technology responsibly and understand that communication online may be seen by others.  Information Technology - Digital Media - Creating Media - Audio Editing:  work with variables and various forms of input and output  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 responsibly and understand that communication online may be seen by others.  Digital Literacy - Computing Systems & Networks - The Internet  understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration	Use technology responsibly and understand that communication online may be seen by others.  Information Technology - Multimedia & Digital Writing on Google Slides  • 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 responsibly and understand that communication online may be seen by others.  Information Technology - Comic Life 3 (app)  With support select and use a variety of software on a range of digital devices.  With support select and use a variety of software on a range of digital devices to accomplish given goals.  Typing Children are taught to type and achieve the standard of 13 words per	Use technology responsibly and understand that communication online may be seen by others.  Programming - Computer Science - Programming Unit A - Multiple Sequences Scratch Scene - Dialogue:  design, write and debug programs that accomplish specific goals; solve problems by decomposing them into smaller parts  use sequence 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	Use technology responsibly and understand that communication online may be seen by others.  Programming - Computer Science - Programming Unit B - Repetition Scratch Shapes:  design, write and debug programs that accomplish specific goals; solve problems by decomposing them into smaller parts  use sequence and repetition in programs; work with various forms of input

				list and be displayed for children to copy)  PLUGGED	PLUGGED	use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs  PLUGGED
5	Online Safety Understand the need to only select age appropriate content.  Information Technology - Multimedia & Digital Writing - Vector Drawings  • 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	Online Safety Understand the need to only select age appropriate content.  Digital Literacy- History of Computing + Women in Computing  understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration	Online Safety Understand the need to only select age appropriate content.  Information Technology – Garage Band (app)  Independently select and use appropriate software for a task. Independently select, use and combine a variety of software to design and create content for a given audience.  PLUGGED	Online Safety Understand the need to only select age appropriate content.  Programming - Computer Science - Programming Unit A - Selection Scratch Quiz:  design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	Online Safety Understand the need to only select age appropriate content.  Programming — Computer Science - Programming Unit B - Variables Scratch Games:  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	Online Safety Understand the need to only select age appropriate content.  Information Technology - Data & Information — Spreadsheets  • 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,
	Typing Children are taught to type and achieve the standard of 15	UNPLUGGED		<ul> <li>use sequence, selection, and repetition in</li> </ul>	programs; work with variables and various	systems and content that accomplish given

	words per minute (these should be from the year 5 spelling list and be displayed for children to copy).  PLUGGED			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  PLUGGED	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  PLUGGED	goals, including collecting, analysing, evaluating and presenting data and information PLUGGED
-	Online Safety	Online Safety	Online Safety	Online Safety	Online Safety	Online Safety
6	Identify a range of ways to report concerns about content and contact in and out of school.  Information Technology - 3D Modelling – Tinkercad:  • 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,	Identify a range of ways to report concerns about content and contact in and out of school.  Digital Literacy - Computing Systems & Networks  use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.  understand computer networks including the internet; how they can	Identify a range of ways to report concerns about content and contact in and out of school.  Information Technology - Data & Information - Microsoft Excel or Google Sheets  • 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	Identify a range of ways to report concerns about content and contact in and out of school.  Programming - Computer Science - Programming Unit A - Variables Scratch Games 2  design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by	Identify a range of ways to report concerns about content and contact in and out of school.  Information Technology - Digital Media - Video creation & editing - iMovie  • 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,	Identify a range of ways to report concerns about content and contact in and out of school.  Programming - Computer Science - Programming Unit B - Sensing Micro:bits  • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems;

data and information  Such as the world wide web; and the opportunities they offer for communication and collaboration  PLUGGED  PLUGGED  PLUGGED  PLUGGED  Collecting, analysing, evaluating and presenting data and information 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  PLUGGED  Collecting, analysing, evaluating and presenting data and information Use section, 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  PLUGGED	ecomposing em into smaller earts es sequence, election, and epetition in rograms; work entitle and output se logical easoning to explain how some emple algorithms ork and to etect and correct errors in gorithms and rograms
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