

ICT Teaching Sequences Reception:

Autumn	Spring	Summer
<p>Using a paint app to paint a picture of themselves and make marks. 2 simple software</p> <p>Garage activity on the ipads.</p> <p>Ipads available to children in free choice with access to apps that develop gross motor skills.</p>	<p>Using paint app to paint the car and make it move. 2 simple software</p> <p>Programming bee bots</p> <p>Ipads available to children in free choice with access to apps that develop gross motor skills.</p>	<p>Using paint app to paint a picture of an animal and make it move. Paint a picture of a superhero and make it move. 2 simple software</p> <p>Programming bee bots</p> <p>Ipads available to children in free choice with access to apps that develop gross motor skills.</p>

ICT Teaching Sequences Y1:

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Concepts:	Key Concepts:	Key Concepts:	Key Concepts:	Key Concepts:	Key Concepts:
Computing systems and network- Improving mouse skills	Programming – Algorithms unplugged	Creating media – Rocket to the moon	Programming- BeeBot	Creating media- Digital Imagery	Data handling- Introduction to data
Teaching Sequences:	Teaching Sequences:	Teaching Sequences:	Teaching Sequences:	Teaching Sequences:	Teaching Sequences:
<ul style="list-style-type: none"> - To log in to a computer and access a website. - To develop mouse skills. - To use mouse skills to draw and edit shapes. - To draw a scene from a story using digital tools. - To create a self-portrait using digital techniques. - 	<ul style="list-style-type: none"> - To understand what an algorithm is. - To follow instructions precisely to carry out an action. - To understand that computers and devices around us use inputs and outputs. - To understand and be able to explain what decomposition is. - To know how to debug an algorithm. 	<ul style="list-style-type: none"> - To recognise that digital content can be represented in many forms. - To design a rocket. - To sequence a set of instructions. - To build a rocket. - To add data to a table or spreadsheet. 	<ul style="list-style-type: none"> - To explore a new device - To create a demonstration video. - To plan and follow a set of instructions precisely. - To program a device. - To create a program. 	<ul style="list-style-type: none"> -To understand and create a sequence of pictures. - To take clear photos. - To edit photos. - To search for and import images. - To create a photo collage. 	<ul style="list-style-type: none"> - To represent data in different ways. - To use technology to represent data in different ways. - To collect and record data. - To sort data. - To design an invention to gather data.
National curriculum links:	National curriculum links:	National curriculum links:	National curriculum links:	National curriculum links:	National curriculum links:
<ul style="list-style-type: none"> • Use technology purposefully to create, organise, store, manipulate and retrieve digital content <ul style="list-style-type: none"> • Recognise common uses of information technology beyond school • Use technology safely and respectfully, 	<ul style="list-style-type: none"> • Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions <ul style="list-style-type: none"> - Create and debug simple programs - Use logical reasoning to predict the behaviour of simple programs' 	<ul style="list-style-type: none"> • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following 	<ul style="list-style-type: none"> • Use logical reasoning to predict the behaviour of simple programs • Create and debug simple program. • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. •

keeping personal information private'		precise and unambiguous instructions.	<ul style="list-style-type: none">• Understand what algorithms are, how they are implemented as programs on digital devices and that programs execute by following precise and unambiguous instructions.	<ul style="list-style-type: none">•	
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ICT Teaching Sequences Y2:

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key concepts:	Key concepts:	Key concepts:	Key concepts:	Key concepts:	Key concepts:
Computing systems and networks : What is a computer?	Programming : Algorithms and debugging	Computing systems and networks : Word processing	Programming: Scratch Jr	Creating Media: Stop Motion	Data Handling: International Space Station
Teaching Sequences:	Teaching Sequences:	Teaching Sequences:	Teaching Sequences:	Teaching Sequences:	Teaching Sequences:
<ul style="list-style-type: none"> - To recognise the parts of a computer. - To recognise how technology is controlled. - To recognise technology. - To create a design for an invention. - To understand the role of computers. 	<ul style="list-style-type: none"> - To decompose a game to predict the algorithms that are used. - To understand that computers can use algorithms to make predictions (machine learning). - To plan algorithms that will solve problems. - To understand what abstraction is. - To understand what debugging is. 	<ul style="list-style-type: none"> - To begin to learn to touch type. - To understand how to use a word processor. - To understand how to add images to a text document. - To create a poetry book using sources from the internet. - To understand what happens to information posted online. 	<ul style="list-style-type: none"> - To explore a new application. - To create an animation. - To use characters as buttons. - To follow an algorithm. - To plan and use code to create an algorithm. 	<ul style="list-style-type: none"> - To understand what animation is. - To understand what stop motion animation is. - To create a stop motion animation. - To plan my stop motion animation. - To create my stop motion animation. 	<ul style="list-style-type: none"> - To understand how computers can help humans survive in space. - To create a digital drawing of essential items for life in space. - To understand the role of sensors on the ISS. - To create an algorithm for growing a plant in space. - To interpret data.
National Curriculum links:	National Curriculum links:	National Curriculum links:	National Curriculum links:	National Curriculum links:	National Curriculum links:
<ul style="list-style-type: none"> • Recognise common uses of information technology beyond school • Use technology purposefully to create, organise, store, manipulate and retrieve digital content' • Use logical reasoning to predict the 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Use technology purposefully to create, organise, store, manipulate and retrieve digital content • Use technology safely and respectfully, keeping personal information private • Recognise common uses of 	<ul style="list-style-type: none"> • Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • Use logical reasoning to predict the 	<ul style="list-style-type: none"> • Use technology purposefully to create, organise, store, manipulate and retrieve digital content • Use technology safely and respectfully, keeping personal information private • Recognise common uses of information 	<ul style="list-style-type: none"> • Use technology purposefully to create, organise, store, manipulate and retrieve digital content

behaviour of simple programs	<ul style="list-style-type: none">• Use logical reasoning to predict the behaviour of simple programs	information technology beyond school. <ul style="list-style-type: none">• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	behaviour of simple programs <ul style="list-style-type: none">• Create and debug simple programs•	technology beyond school	
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ICT Teaching Sequences Y3/4

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Concepts: Creating Media- isong Garage Band Word	Key Concepts: Programming- ilogic Tynker Lightbot	Key Concepts: Computing systems and networks- iSafety	Key Concepts: Creating Media- Stop Motion	Key Concepts: Creating Media- Podcasts, blogging and vlogging	Key Concepts: Programming- icontrol Sphero
Teaching sequence: -To answer the question 'What is music production?' and create a drumbeat. - To add 'Live Loops' to their Smart drums beat to create an Introduction. - To add a new section to a pre-existing song to build the structure. - To critique other choruses and add the elements we like to our own work using 'Smart Instruments'. -To know how to use the Duplicate function within GarageBand to help with continuity. -To evaluate and make changes to my end piece. -To develop word processing skills in word.	Teaching sequence: -Understand how computers communicate and write a series of programs to achieve a set of simple tasks. -To understand how algorithms work and detect and correct errors. -To debug algorithms by decomposing them into smaller parts. -To consider variables and conditionals when creating algorithms. -To evaluate my algorithm and debug and correct errors by decomposing them into smaller parts.	Teaching sequence: -To compare networks and begin to develop word processing skills. -To understand what Cyberbullying is and know the steps to take against it. -To understand what is meant by 'healthy screen time' and write a letter on Microsoft Word. -To compose an email and understand the importance of thinking critically about what I see online. -To understand and define digital representation. -To consider why social media has age restrictions.	Teaching sequence: -To know the four main types of animation. -Create an animation by taking multiple pictures on Stopmotion. -To animate using green screen and understand how it is used in films. -To combine my animation and green screen. - To use the cell drawing technique to animate a short title on my animation. -To add sound to my animation. -To understand why collaboration is important in film creation.	Teaching sequence: -To understand why it is important to protect your identity online and begin to create a podcast. -To explain what a feature is and add one to my podcast. -To record a jingle and add it to my podcast. -To explain the difference between a podcast and blog and begin to write a blog. -To turn my blog into a vlog and explain the difference between the two. -To create channel descriptions and understand how to protect my identity while filming content. -To edit my channel to enhance the way it looks.	Teaching sequence: -To explain how robots are used in industry. -To begin to move our robot and know it has a weight at the bottom to keep the circuitry upright. -To code a simple presentation guide path including movement. -To look at simple code and explain what it is going to do. -To input a code to get Sphero through the maze. -To debug my maze code and fix errors.
National Curriculum links: <ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals • Use technology safely and 	National Curriculum links: <ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals. • Use sequence, selection, and 	National Curriculum links: <ul style="list-style-type: none"> • Use technology safely, respectfully and responsibly; recognise acceptable/unacc 	National Curriculum links: <ul style="list-style-type: none"> • Use sequence, selection, and repetition in programs, work with variables and 	National Curriculum links: <ul style="list-style-type: none"> • Use sequence, selection, and repetition in programs, work with variables and various forms 	National Curriculum links: <ul style="list-style-type: none"> • Use sequence, selection, and repetition in programs, work with variables and

<p>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</p> <ul style="list-style-type: none"> • Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. 	<p>repetition in programs, work with variables and various forms of input and output.</p> <ul style="list-style-type: none"> • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. 	<p>eptable behaviour; identify a range of ways to report concerns about content and contact.</p> <ul style="list-style-type: none"> • 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. • 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. 	<p>various forms of input and output.</p> <ul style="list-style-type: none"> • 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 programs, systems and content. 	<p>of input and output.</p> <ul style="list-style-type: none"> • 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • Use technology safely, respectfully and responsibly; know a range of ways to report concerns and inappropriate behaviour. 	<p>various forms of input and output.</p> <ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals •
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ICT Teaching Sequences Y5/6

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Concepts: Creating media- Ihip hop GarageBand	Key Concepts: Programming- iDebug Sphero	Key Concepts: Computing systems and networks- iSocial- design and create a social media platform	Key Concepts: Creating media- i2D- animation	Key Concepts: Creating media- iAdvertise- radio ad	Key Concepts:
Teaching Sequences: -To know where hip hop music originated from, when it started and what it sounds like. -To combine the bassline and melody in GarageBand. -To program drums and create a hip hop instrumental. -To analyse and write rap lyrics. -To perform my rap and improve them by responding to peer feedback. -To use a microphone to record my rap onto my song.	Teaching Sequences: -To explain the meaning of 'debugging'. -To debug and correct a program. -To create and debug my own program using a brief. -To explain how programming may change our future and debug a Sphero robot. -To design and develop an endless runner game. - To design and develop an endless runner game and share with peers.	Teaching Sequences: -To type a mission statement into Word and complete formatting changes. - To develop my knowledge of word processing functions. -To use the insert tab to insert images into a document. -To pitch ideas to peers and respond to feedback. -To begin to build a presentation. -To pitch my ideas to the class using my presentation.	Teaching Sequences: -To understand 2D animation (flipbooks). -To be able to draw using the 'stretch and squash' technique. -To be able to animate smooth movement for a character. -To manipulate the app 'Do Ink Animation' to create a motion path. -To be able to combine the 'stretch and squash' technique with motion. -To create a 2D background with an animation over the top.	Teaching Sequences: -To understand the importance of visual branding and create a logo. -To understand and create a sonic logo. -To understand the difference between a slogan and a sonic logo. -To analyse radio adverts. -To understand how radio adverts reach their intended customers. -To create a TV advert linked to my radio advert.	Teaching Sequences: Coming soon to Ijam
National curriculum links: 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	National curriculum links: 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;	National curriculum links: Search, 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,	National curriculum links: 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;	National curriculum links: • 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.	National curriculum links:

<p>programs; work with variables and various forms of input and output.</p> <ul style="list-style-type: none"> • 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 accomplish given goals, including collecting, analysing, evaluating and presenting data and information. 	<p>work with variables and various forms of input and output.</p> <ul style="list-style-type: none"> • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. 	<p>analysing, evaluating and presenting data and information.</p> <ul style="list-style-type: none"> • Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • Use technology safely, respectfully and responsibly; know a range of ways to report concerns and inappropriate behaviour. <p>-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.</p>	<p>work with variables and various forms of input and output.</p> <ul style="list-style-type: none"> • Select, use and combine a variety of software (including internet services) on a range of digital devices and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. 	<ul style="list-style-type: none"> • Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information. • Use technology safely, respectfully and responsibly; know a range of ways to report concerns and inappropriate behaviour. 	
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