Computing Curriculum 2021

Enquire Learning Trust

Ever Curious, Always Learning

Table of Contents

Curriculum Overview

Year Group Learning Overview

Assessment

Software and Apps

EYFS

Year 1

Year 2

Year 3

Year 4

Year 5

Year 6

Equivalent Programs

Supplement/After School Computer Club Lessons

Home Learning

Enquire Learning Trust - Computing Curriculum

Intent

At Enquire Learning Trust, we believe that it is vital for all our pupils to learn from and about Computing and Technology, so that they can understand the world around them. Through teaching our computing curriculum, we aim to equip our children to participate in a rapidly changing world where work and leisure activities are increasingly transformed by technology. It is our intention to enable children to find, explore, analyse, exchange and present information as well as having the skills to manipulate, develop and interpret different forms of technology in an ever-changing world.

In such a fast-moving curriculum, we are constantly looking at new ways of delivering relevant and exciting activities, while still delivering the fundamental skills needed for computing. Using technology safely and responsibly is a main priority and ensuring all pupils are able to use the internet and equipment appropriately is of paramount importance. We encourage our pupils to make links across the curriculum, the world and our local community, to reflect on their own experiences, which are designed in our curriculum, allowing horizontal and vertical links with previous year groups.

The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Implementation

The Enquire Learning Trust bespoke computing curriculum offers a cross curricular scheme of work for Key Stage 1 and Key Stage 2 presently which is congruent with the National Curriculum. The curriculum looks at the progression needed for all pupils to develop and embed skills and knowledge within the strands of: digital literacy, E-Safety, coding, computing and app specific learning. The curriculum is designed to support teaching and learning and the acquisition of subject knowledge in all areas. Children will have the opportunity to explore and respond to key issues such as digital communication, cyber-bullying, online safety, security and social media.

Impact

- Children will be confident users of technology, able to use it to accomplish a wide variety of goals, both in school and at home.
- Children will have a secure and comprehensive knowledge of the implications of technology and digital systems which is important in our ever-evolving society.
- Children will be able to apply the British Values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems.
- se problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems

- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology.

Aims

The curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation

Key stage 1

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.

Key stage 2

Pupils should be taught to:

- 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, 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
- 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
- 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 safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Please use the ELT Assessment statements as guidance for progression through the curriculum

Evidence Collection for Subject Leaders

It would be good to save/screenshot evidence of some pieces of work when children are able to demonstrate independently a new skill or knowledge they have learned. This might be the end piece for their design. It is not necessary to save every piece of work but to get a sample of pupils work across the curriculum to show breadth and coverage. Evidence of progression could also be a discussion with pupils about what they have learnt within that strand and how they would use that new skill in different contexts.

Year group curriculum overview

	Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2
Year 1	E-safety: Using the internet safely.	Digital Literacy: Typing training.	Coding with Tynker JR	E-safety: the internet safely	Digital Literacy: Using a computer/device.		Digital Literacy: bug hunters Finding, saving, organising, sending, and presenting		Digital Literacy: Potty Painters - Digital Art and book design		Coding: Scratch Jnr - introduction and fundamentals
Year 2	E-safety: Staying safe on the internet – Jessie and Friends.		Coding: Scratch Jnr - introduction and fundamentals		Digital Literacy: Using search. Typing training.		Digital Literacy - using a computer. What is the Internet.	Digital Literacy: Introduction to photo editing.	Digital Literacy: taking and using photos Digital Literacy: Presentations iOS		Coding: Scratch Jnr - introduction and fundamentals
Year 3 **Topic related activities throughout the year.**	E-safety: Google Share with care		Digital Literacy: Research and develop a topic Use school current school topic		E-safety: Google Be Internet Brave	Coding: Lightbot - Algorithms	Coding: Tynker - Animations		Coding: Tynker – Loops, debugging and events.		Coding: Tynker – If statements. HTML App Coding
Year 4	E-safety: Google Don't fall for fake		Digital Literacy: Networks	Digital Literacy: Email	Digital Literacy: Word processing PowerPoint	Digital Literacy: Photo Editing - Functions	Coding: Tynker - Algorithms		Digital Literacy: Stop motion animation		Coding: Tynker - Conditions, Functions and App design
Year 5 **Topic related activities throughout the year.**	E-safety: Google Secure your secrets	Digital Literacy: Using shared cloud documents Use school current school topic	Digital Literacy: Spreadsheets – Using Formula to automate mathematical problems.		E-safety: Cyberbullying	Coding: Lightbot – Algorithms Procedures. Loops and Debugging	Coding: Scratch – Simple Game creation		Digital Literacy: Animation through varied apps	Digital Literacy: Website creation. SharePoint Use school current school topic	Coding: Microsoft Kodu – Advanced game creation
Year 6	E-safety: Google It's cool to be kind Interland's Kind Kingdom		Digital Literacy: 3D modelling using Sketchup.	Computer Networks: Search Algorithms	E-safety: Why is Social Media Free? Fake News in real life.	Digital Literacy: Making Videos	Coding: MIT App Inventor– Making an app about secondary schools to take home with us.		Coding: HTML Hacking and Python Coding	Digital Literacy: ChildNet video competition	Coding: Swift Playground – Conditional Code, While loops and Logic.

Assessment

This computing curriculum is also paired with an **assessment framework** to support teacher assessment, next steps planning and gap analysis. This framework provides information that can be used to help plan and assess pupil knowledge, understanding and skills in primary computing. It covers the main expectations for children at the end of each Key Stage. It sets out reasonable expectations of what children could achieve in each year at primary school, thus allowing teachers to track progress towards the statutory attainment targets.

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

The progression statements derive from the Programme of Study for computing; they break down the original bullet points into shorter, more manageable chunks. Each statement is accompanied by 'What to look for' descriptors. These are designed to support planning for teaching and learning. The framework sets out a sequence that illustrates progression and that can be used to make judgements about pupil achievements. The framework is not intended to be definitive – it should be seen as indicative rather than prescriptive.

The framework is divided into three main strands and an app specific sub strand that covers the National Curriculum.

- **E-safety**
- **Computing and Digital Literacy** **(App specific learning linked to digital literacy.)**
- **Coding**

Assessments may be made during computing lessons or when pupils are using apps during topic learning that showcase their computing skills.

These statements are just **guidance and suggestions** to show the progression from Emerging towards, working towards, ARE and Greater Depth. Remember that pupils need to be confidently showing they understand how to use each key concept confidently and independently.

All of the assessment statements are found in the SIMS app which allows teachers to assess as they move through the curriculum. It enables real-time assessment and aids planning for next steps and quickly identifies which children are secure in a skill and which children need further support.

The Computing Assessment Framework can be found HERE

Software and Apps used

iPad Apps	Year 1		Year 2		Year 3		Year 4	Year 5	Year 6
iOS	Scratch Jr	Microsoft PowerPoint	Scratch Jr	Microsoft PowerPoint	Tynker	iMovie	Keynote	Keynote	Swift Playground
	Pages	Piccollage	Lightbot Hour	Snapseed	Keynote	iOS Camera	iMovie	Lightbot Hour	iMovie
	Tynker JR	Tayasui Sketches School	Piccollage App		Google Earth	Google Arts and Culture	Pages		Kahoot
	iOS Camera	Apple Photos	Photo Editor – Autodesk Sketchbook		Tayasui Sketches School		iMotion		MIT app inventor QR test app.
	Adobe Spark						Photo Editor – Autodesk Sketchbook		
	Safari						Tynker		

Windows Software	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6	
	Chrome	Edge	Chrome	Edge	Chrome	Edge	Chrome	Edge	Chrome	Edge	Chrome	Edge
	Microsoft Word		Paint.net		Microsoft Word		Microsoft Word		Microsoft Word	Microsoft Excel	Microsoft Teams	
	Microsoft PowerPoint				Microsoft PowerPoint		Microsoft PowerPoint		Microsoft PowerPoint	Microsoft Publisher	Windows Photos	
	Paint (Windows)						Paint.net		Microsoft Teams		Mozilla X-Ray	
							Scratch desktop (or online)		Scratch desktop (or online)		Scratch desktop (or online)	
									Pivot Animator			
									Microsoft Kodu			

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Online Services requiring account creation (Free)	Adobe Account for Spark		The Tynker app will need a classroom account setting up to unlock levels 4 -10 Creating Class accounts for the Tynker App	The Tynker app will need a classroom account setting up to unlock levels 4 -10 Creating Class accounts for the Tynker App	MIT app inventor. Will need pupils to copy their own save code to log in every week,	Swift playground will require an Apple ID. These can be made via Apple School Manager.
Online services needing Office 365 login (Pupil and teacher)			Tynker Online requires Office 365 account (login with the windows logo icon) Tynker Online also needs a class set up and a class code shared to the pupils.	Tynker Online requires Office 365 account (login with the windows logo icon) Tynker Online also needs a class set up and a class code shared to the pupils.	Microsoft SharePoint Microsoft Word online Microsoft Excel online Microsoft Publisher	SketchUp – Login with Microsoft account

Computing Year 1

Learning intentions

Year 1	
E-safety	Uses technology safely
	Keeps personal information private
	Recognises common uses of information technology beyond school
Computing / Digital Literacy	Uses technology purposefully to create digital content
	Uses technology purposefully to store digital content
	Uses technology purposefully to retrieve digital content
Coding	Understands what algorithms are
	Creates simple programs

Autumn 1	1	2	3	4	5	6	7
Topic	E-safety:		Digital Literacy: using a computer				
Lesson	Become an Internet Protector That 'uh-oh' feeling	I have the right to say NO	Login Practice	Developing mouse skills	Using a computer keyboard	Developing keyboard skills.	Secret Clipboard (Cut, Copy and paste)
LO	To discuss how to stay safe online-Avatar and profile safety	To discuss how to stay safe online-keeping stuff safe	To practice and learn logging in on Windows computer. Get usernames and passwords ready. (Maybe laminate login card) Understand how keyboard keys are in capital letters. Locking screen.	Learning objectives To use a mouse in different ways: I can use a mouse to open a program I can click and drag to make objects on a screen I can use a mouse to create a picture	To use a keyboard to type on a computer: • I can say what a keyboard is for • I can type my name on a computer • I can save my work to a file.	**Learning objectives** To use the keyboard to edit text: • I can open my work from a file • I can use the arrow keys to move the cursor • I can delete letters	To explore cut copy and paste • To see different symbols for cut copy and paste • To practice in word document copying text and images
Planning	ChildNet-Lee and Kim. Teacher Guidance and Lesson Plans Link:	ChildNet-Lee and Kim. Teacher Guidance and Lesson Plans Link:	This is space for children to practise switching on/off & logging in & typing passwords	**Paint** Teacher Guidance and Lesson Plans	**Microsoft Word (PC)** Teacher Guidance and Lesson Plans	**Microsoft Word (PC** Teacher Guidance and lesson Plans:	**Microsoft PowerPoint (PC)** -Cut, copy, and paste laptop (awaiting upload)
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered E-Safety 1.01,1.02, 1.03, 1.04			These lessons relate to the assessment statements in SIMS numbered Digital Literacy 1.01,1.02			

Autumn 2	1	2	3	4	5	6
Topic	Coding: Algorithms				E-safety:	E-safety
Lesson	**Tynker JR** Introduction to Algorithms				A-B-C Searching Comparisons of topic-based images using different child-friendly search engines.	Keep It Private
LO	To Introduce the term **Algorithm**. To reinforce the meaning of an Algorithm **(A List of instructions)**	To use directional instructions to create algorithms to solve puzzles.	Plan and develop algorithms To solve problems by splitting them into smaller parts.	To learn the term **DEBUGGING.** To Reinforce that debugging is **fixing our code**, so that it works.	To search the internet for suitable pictures on an **iPad**	To keep my information private
Planning & Resources	**Tynker JR App** Ocean Odyssey Levels 1 –10 Getting Code in the right **Order**	**Tynker JR App** Ocean Odyssey Levels 12 –20 Giving a list of instructions to collect the coins.	**Tynker JR** App Ocean Odyssey Levels 22 – End. Model a list of instructions **wrong** and allow the children to correct you.		Swiggle Search Engine Google Safe Search: Planning Link	SMART Rules: MT Planning Link: Planning Link:
Video	Introduction to Algorithms – Part 1	Introduction to Algorithms – Part 2	Introduction to Algorithms – Part 3			
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Coding 1.01, 1.02, 1.03, 1.04				These lessons relate to the assessment statements in SIMS numbered E-Safety 1.01,1.02, 1.03, 1.04	These lessons relate to the assessment statements in SIMS numbered E-Safety 1.01,1.02, 1.03, 1.04

Spring 1	1	2	3	4	5	6
Topic	Digital Literacy: using a computer					
Lesson	Using a device	Mouse Skills	Keyboard Skills		Tablet Comparison (Cut, Copy and Paste)	Using a computer responsibly
LO	To practice and learn logging in on Windows computer. Get usernames and passwords ready. (Maybe laminate login card) Locking screen.	To practise mouse skills (Clicking Dragging)	Using a device to touch type	Using a device to touch type	To explore how iPad touch, select, copy and paste is different to Windows functions. Recap cut copy paste lesson from autumn term. Show and practice cut copy paste on an iPad	Learning objectives To create rules for using technology responsibly: I can identify rules to keep us safe and healthy when we are using technology in and beyond the home I can give examples of some of these rules I can discuss how we benefit from these rules
Planning	This is space for children to practise switching on/off & logging in & typing passwords	Lesson Plan: Pupil Puzzle Link	BBC Dance Mat Level 1	BBC Dance Mat Level 2	PowerPoint – cut copy and paste iPad (awaiting upload)	Teacher Guidance and Lesson Plans:
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 1.01,1.02					

Spring 2	1	2	3	4	5	6
Topic	Digital Literacy: Bug Hunters Finding, saving, organising, sending, and presenting					
Lesson	Introduction to the topic and searching for images	Create an image gallery by holding finger down on image and adding to photos.	Organise images into a named folder on the iPad Organise images into groups/fields: legs, shell can it fly? etc	Rename files to help organise them	To be able to send (AirDrop) files to each other and to the teacher.	Create a presentation of organised images using suitable iPad software e.g., Piccollage. Add text labels.
LO	To use Google search to **find** images	To **save** images from the internet	To create and rename folders	To rename files	To move files	To present my image gallery
Video	**Bug hunters (Photos - Finding saving, moving, sharing)**					Bug Hunters (PicCollage)
Planning & Resources	**Safari/ Chrome iOS** Insects	**Apple Photos** Link:	**Apple Photos** Link:	**Apple Photos** Link:	**AirDrop** Link: How to airdrop	**Piccollage App.** Photo slideshow: Keynote:
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 1.01,1.02					

Summer 1	1	2	3	4	5	6	7
Topic	Digital Literacy: Potty Painters Digital Art and book design						
Lesson	To introduce topic and discuss what an illustration is	Children choose a book to draw an illustration for		Use an illustration program (e.g., Tayasui SS or drawing app) to create an illustration	Use the same program to edit an illustration	Introduction to eBooks	Continue to make the eBook
LO	To describe what an illustration is	To plan an illustration		To create and save an illustration	To edit an illustration	To create an eBook	To add illustrations to an eBook
Video		Austin's butterfly					
Planning & Resources	-Describe what illustrations are. -Children find illustrations in classroom books. Take photos on iPads. -Ask why we use illustrations.	-Children create paper/book illustration based on current topic work. -Watch Video -Children use critique to improve illustrations		**Tayasui Sketches School App.** -Use plan from week 2-3 to create a digital copy of the illustration. -Guild children in tools of the drawing app ("Undo is your friend") - Use app to create/save/edit illustrations.		**Adobe Spark** (Class login required) or **Apple Pages** (Apple id required) **Book Creator** (Free Version – Only 1 book per device) -Using Topic work, create a paragraph of text (typing or dictation) and add illustrations.	
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 1.01,1.02						

Summer 2	1	2	3	4	5	6	7
Topic	Coding: **Scratch Jnr –** Introduction and fundamentals						
Lesson	Drive across the city	Run a race	Sunset	Moonrise after sunset	Spooky forest	Dribbling a basketball	Dance Party
LO	To understand an algorithm is a list of instructions. To write an and program a sprite	To add sprites that move at different speeds.	To make a sprite move and hide.	To change the background automatically.	To make my program **repeat**.	Learn how to use a repeat block to code a looped action	Use sound and motion together
Video	Introduction to ScratchJR	Scratch JR – Run a race.	Scratch JR – Sunrise.	Scratch JR – Moonrise.	Scratch JR – Spooky Forest.	Dribbling a basketball	Dance Party
Planning	Lesson Plan – Drove across the city	Lesson Plan - Run a race	Lesson Plan - Sunset	Lesson Plan - Moonrise after sunset	Lesson Plan - Spooky forest	Dribbling a basketball	Dance Party
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Coding 1.01, 1.02, 1.03, 1.04						

Computing Year 2

Learning Intentions

Year 2	
E-safety	Uses technology respectfully
	Identifies where to go for help and support when they have concerns about content or contact on the internet or other online technologies
Computing / Digital Literacy	Uses technology purposefully to organise digital content
	Uses technology purposefully to manipulate digital content
Coding	Understands that algorithms are implemented as programs on digital devices
	Understands that programs execute by following precise and unambiguous instructions
	Debugs simple programs
	Uses logical reasoning to predict the behaviour of simple programs
App Specific	To learn the basics of photo editing and how images are layered. (Part of Computing and DL)

Autumn 1	1 & 2	3	4	5	6	7
Topic	E-safety: Jessie and Friends					
Lesson	Jessie and Friends Episode 1 –Watching Videos	Jessie and Friends Episode 2- Sharing Pictures			Jessie and Friends Episode 3- Playing Games. Session 1	Jessie and Friends Episode 3- Playing Games. Session 2
LO	To use the rules to discuss a story • I can explain how something online might make someone feel worried or sad. • I can recognise different feelings. • I can identify up to four adults in my life who can help me if I have a problem online.	To discuss how to stay safe on the internet. I can explain what might happen if we share a picture.	To use technology safely I can identify the effect of people's actions online and consider ways of keeping others and myself safe.	To describe the rules for staying safe online I recognise that I can be an 'upstander' by choosing not to join in.	To make safe choices when using the internet I can identify what personal information is and the importance of not sharing this. I can recognise different feelings I might encounter online and how my body might tell me something 'doesn't feel right'.	To describe positive behaviour on the internet • I can talk about the qualities that make a good friend. • I can identify that people online may not tell the truth. • I can explain the difference between a secret and a surprise.
Video	Episode 1 –Watching Videos	Episode 2- Sharing Pictures			Episode 3- Playing Games	
Planning	Resources Link: Lesson Plan and Resources **Page 16-29** (Colouring Pages, Activity Sheets, Song Lyrics) Storybook 1	Resources Link: Lesson Plan and Resources **Page 30-47** (Colouring Pages, Activity Sheets, Song Lyrics) Storybook 2			Resources Link: Lesson Plan and Resources **Page 48-52** Storybook 3	Resources Link: Lesson Plan and Resources **Page 53-77**
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered E-Safety 2.01, 2.02, 2.03					

Autumn 2	1	2	3	4	5	6
Topic	Coding: **Scratch Jnr -** Introduction and fundamentals OneDrive Resources					
Lesson	Grow and Shrink	Time to Move	Repeat	Sounds	Meet and greet	Conversation
LO	To program a character to grow and shrink.	To use instructions to make characters move at different speeds and distance.	To use a repeat instruction to make a sequence of instructions run more than once and predict the behaviour.	To create programs that play a recorded sound.	To use speech in a program using the **Broadcast** code	To use sequencing in a program
Video	Video 1 - Grow and Shrink	Video 2 - Time to Move	Video 3 - Repeat	Video 4 - Sounds	Scratch JR – Meet and greet.	Scratch JR – Sequences
Presentation	Grow and Shrink	Time to Move	Repeat	Sounds		
Planning	Activity Sheet – Grow	Activity Sheet – Move Car Activity Sheet – Move Under Water	Activity Sheet – Spaceman Activity Sheet – Quiz	Activity Sheet – Sounds	Lesson Plan - Meet and greet	Lesson Plan - Conversation
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Coding 2.01, 2.02, 2.03, 2.04					

Spring 1	1	2	3	4	5	6	7	8
Topic	Digital Literacy: using a computer							
Lesson	Staying Safer Online	Follow the Digital Trail	Screen Out the Mean	Using Keywords	Sites I Like	Typing – Finger placement.		
LO	To discuss which websites are appropriate for my age	To describe my digital footprint	To treat others with respect online	To use search engines effectively	To rate my favourite websites	To type without looking at the keyboard with correct finger placement	To be able to move our typing hands	To Improve touch typing.
Planning	Digital Literacy & Citizenship Link					Link (Typing Club)	BBC Dance Mat Level 3:	BBC Dance Mat Level 4:
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 2.01, 2.02,							

Spring 2	1	2	3	4	5	6
Topic	Digital Literacy - using a computer			E-safety: Using a computer	Digital Literacy - Introduction to photo editing. (Halibut Jackson) (**PAINT.NET or Auto desk Sketchbook Needed**)	
Lesson	What is the internet?	What is a computer? How can computers help you learn?	How do people use computers at work? How can you use the internet?	How do you take care of your personal information? How can you use the web safely?	The first concepts of photo editing.	To find images from the internet to insert into the Image on separate layers.
LO`1	To describe how the internet works	To understand that computers are in lots of different inventions. To identify computers' icons.	To discuss the different uses of computers.	Understanding how we use computers to stay safe while we're online.	To understand photo editing is done in layers. To understand the concept of transparent in photo editing.	To add and edit layers. Copy paste. Change visibility of layers
Video					Video – Introduction of photo editing – Paint.NET Video – Introduction of photo editing – AutoDesk SB Video – Halibut Jackson Story on YouTube	
Presentation					PowerPoint – Introduction to photo editing	
Planning & Resources	Link:	What is a computer? How does a computer help you learn?	How do people use computers at work? How can you use the internet?	How do you take care of your personal information? How can you use the web safely?	Halibut Jackson template- Paint.NET (Windows) Halibut Jackson template- AutoDesk (iPad) For Lesson Plan – Go through the PowerPoint and then the Video. Demonstrate the different layers on the files provided. Drawing and importing layers is demonstrated in the videos.	
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 2.01, 2.02,			These lessons relate to the assessment statements in SIMS numbered E-Safety 2.04	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 2.01, 2.02,	

Summer 1	1	2	3	4	5	6	7
Topic	Digital Literacy: taking and using photos					Digital Literacy: Presentations iOS	
Lesson	We are photographers	We are photographers	Edit Photos on iPad apps.	We are photographers	We are photographers		
LO	To discuss what a camera is and how it works	To take a good photo To save and organise photos. To be able to use sending techniques such as airdrop.	Using a photo edit app confidently	To create a Piccollage using edited photos.	To present my photos (use Airdrop to send to teacher. Either Apple classroom or airdrop Share function)	PowerPoint iOS	PowerPoint iOS
Video							
Presentation							
Planning & Resources	How a camera works Pinhole Camera	LINK How data is stored	**Snapseed app.** Photography apps	**PicCollage app.**	Apple Classroom or Airdrop.		
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 2.01, 2.02,						

Summer 2	1	2	3	4	5	6	7
Topic	Coding: **Scratch Jnr -** introduction and fundamentals						
Lesson	Walk Along	Show and Hide	Gymnast Cat	Intersection	Big and Small	Messaging	Maze
LO	To animate a sprite	To make sprites appear and disappear	To use a repeat block	To control a sprite's actions	To change the size of a sprite	To use messaging to control a sprite	To create a game
Video	Walk Along	Show and Hide	Gymnast Cat	Intersection	Big and Small	Messaging	Maze
Presentation	Walk Along	Show and Hide	Gymnast Cat	Intersection	Big and Small	Messaging	Maze
Planning & Resources	Lesson Plans – Repeated in Presentation Powerpoint. Using **ScratchJR** on iPads						
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Coding 2.01, 2.02, 2.03, 2.04						

Computing Year 3

Learning Intentions

Year 3	
E-safety	Uses technology responsibly
	Identifies a range of ways to report concerns about contact
Computing / Digital Literacy	Uses search technologies effectively
	Uses a variety of software to accomplish given goals
	Selects, uses, and combines internet services
	Analyses and evaluates information
Coding	Writes programs that accomplish specific goals
	Uses sequence in programs
	Works with various forms of input
	Works with various forms of output
App Specific	Use word processing and presentation tools. (This is part of Digital literacy and computing and can be topic based. There are no lessons planned for this section, so they fit in within your topic areas.

Autumn 1	1 & 2		3	4	5	6	7	8
Topic	E-safety: Google: Share with Care Google Interland Scheme of work pages 13 - 33 Vocabulary – Page 14							E-safety:
Lesson	When not to share	Keeping it private	That's not what I meant!	Frame it	Whose profile is this, anyway?	How do others see us?	Interland: Mindful Mountain	I am internet awesome
LO	To discuss what information should be kept private. (1)	To discuss different levels of privacy	How do we make sure that other people will understand what we mean when we post online?	Thinking about what to keep 'outside the frame' when we post online	To identify ways information can be found online about people.	To create a positive online presence	To put my learning into practice To read and sign the Be Internet Awesome pledge Print one out for each child. Child can sign the BLUE signature space.	Create an E-safety class assembly Test our knowledge on band runner
Presentation	Slideshow 1 Print slides 9, 12-17 for each table	Slideshow 2	Slideshow 3	Slideshow 4	Slideshow 5	Slideshow 6	Slideshow 7	Alternative to planning E-safety assembly – Watch Band runner episode 1,2,3 and play the game
Video	Introduction to Interland							Think you know Videos – Play like share
Planning	Link Page 15-16	Link Page 17-20 Answers to scenarios are pages 19-20	Link Page 21-24 Print pages 23-24 for children's Handouts (T shirt and Emojis)	Link Page 25-27 Print page 27 for children's Handouts	Link Page 28-30 Print page 30 for children's worksheets	Link Page 31-32	Link Page 33 Play the online game. (Children search for "Interland" and play the **BLUE** world Mindful Mountain) Note scores and try to beat your own score. Google Interland	Test your e safety knowledge in Band Runner www.thinkuknow.co.uk/8_10/
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered E-Safety 3.01, 3.02, 3.03							

Ongoing App Specific Learning	Use word processing and presentation tools. (This is part of Digital literacy and computing and can be topic based. There are no lessons planned for this section, so they fit in within your topic areas. Suggested Assessment statements - Digital Literacy 3.05, 3.06, 3.07

Autumn 2	1	2	3	4	5	6	7	8
Topic	Digital Literacy: Exploring our Earth **(School Topic Related)**		Digital Literacy: Research and develop a topic **(School Topic Related)**					
Lesson	Getting started with **Google Earth**	**Google Arts and Culture** if unblocked, or use the website	**Clarify**- what information are you looking for?	**Search**- what words will give you the highest quality results?	**Delve**- which search results should you explore further?	**Evaluate**- how do you know if it is the info you need and is it reliable?	**Cite**- can you summarise the information, use direct quotes and cite sources?	**Organisation**- how can you keep the valuable information that you have gathered, organised?
LO	Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied	Create and experience stories about your topic. Use the website or app to explore your subject.	To research and record information. What information are you looking for? Consider keywords, questions, synonyms, alternative phrases etc.	To use search effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	To be discerning in evaluating digital content. Which search results should you click on to explore further?	To assess the credibility of a source on the internet	Students can benefit from learning about plagiarism, copyright, how to write information in their own words, and how to acknowledge the source	Collect, analyse, evaluate and present data and information
Video	Video – How to use Google earth.	Video - How to use Google Arts and Culture		Video – How does searching work?	Video – What does Google know about me?		Video - What is Citation?	
Planning	Overview and resources: Geography NC: Google Earth Voyager:		Lesson Plan parts 1-7 Mini Lesson Plans PDF:	Lesson Plan parts 8-18 Worksheet – List of domains by county.	Lesson Plan parts 19-26 Worksheet - label the search result.	Lesson Plan parts 27-34 Website – The Dog Island Worksheet – Dog Island	Lesson Plan parts 35-45	Lesson Plan parts 46-50
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 4.01, 4.03, 4.04							

Spring 1	1	2	3	4	5	6
Topic	E-safety: Google Be Internet Brave Google Interland Scheme of work pages 111 – 139 Vocabulary – Page 112				Coding Introduction to **Lightbot Hour**	
Lesson	What does it mean to be Brave? From bystander to Helper	Algorithms	Seeing upsetting stuff: What do I do?	Upsetting stuff online: What do I do?	Algorithms	
LO	Understand what types of situations call for getting help or talking things out with a trusted adult.	Consider what options there are for being brave and why bringing adults into the conversation is important.	To know they have options: There are different ways to be brave and take action.	To understand they're not on their own when they see content online that makes them feel uncomfortable	To understand how to create a list of instructions. To reinforce the use of the word algorithm (a list of instructions)	To visualise an algorithm before running the code. To fix any mistakes (Debugging)
Video					Video 1 -	Video 1 -
Planning	Link Page 113-121	Link Page 122	Link Page 123-125	Link Page 126-128	Lightbot app World 1	
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered E-Safety 3.01, 3.02, 3.03, 3.04				These lessons relate to the assessment statements in SIMS numbered Coding 3.01, 3.02, 3.03, 3.04, 3.05, 3.06	

Spring 2	1	2	3	4	5	6
Topic	Coding: Getting Started	Coding: You Can Order It		Coding: You Can Step It		Coding: You Can Choose
Lesson	Working Wall	Introduction to Sequencing	Introduction to Sequencing	Creating Sequences	Creating Sequences	Flexible Sequencing
LO	To understand the concept of coding, and describe key terms	Describe sequences, construct simple sequences	Describe sequences, construct simple sequences	Build sequences and understand orders	Build sequences and understand orders	Re-ordering steps in a sequence and create flexible sequences
Planning	Getting Started with Code 1 – lesson 0 – Working Wall and Practice	Getting Started with Code 1 – lesson 1 – Story Time and Practice	Getting Started with Code 1 – lesson 1 – App Practice and reflection	Getting Started with Code 1 – lesson 2 – My Crazy Dance	Getting Started with Code 1 – lesson 2 – App Practice and reflection	Getting Started with Code 1 – lesson 3 – Build a Face and App Practice
Example Screenshot	Week 1.1 Week 1.2 (For the full planning, download the iBook)	Week 2.1	Week 3.1	Week 4.1	Week 5.1	Week 6-1 Week 6.2 Week 6.3 Week 6.4
Video	Video 1 – Introduction	Video 2 – Storytime	Video 3 – Crash landed		Video 5 – Dance Party	Video 6 – Stay the Course
App Level/World Or real-world resource	Tynker – Community tab on main menu screen	Pen and paper, or Notes or **Sketches School** Printout – Brushing Teeth Require familiar story (Goldilocks and the 3 Bears. Etc)	Tynker – Space Cadet Level 1 – Crash Landed! Home Learning Link 1-6	Keynote in iBook	Tynker – Space Cadet Level 2 – Dance Party Home Learning Link 7-8	Tynker – Space Cadet Level 3 – Stay the Course Keynote – Clothing PowerPoint – Clothing
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Coding 3.01, 3.02, 3.03, 3.04, 3.05, 3.06					

Summer 1	1	2	3	4	5	6	7
Topic	E-safety: Google Be Internet Brave Google Interland Scheme of work pages 111 – 139 Vocabulary – Page 112	Coding: You Can Do it over and over **Tynker App iOS**		Coding: You Can Fix it **Tynker App iOS**		Coding: You Can Prompt It **Tynker App iOS**	
Lesson	What to do about mean stuff on screens Handling mean behaviour online	Loops		Debugging		Events and Actions	
LO	To work out a plan of action before seeing something disturbing online	Understand what a loop is, coding with loops		Understand basic debugging		Understand events and actions	
Planning	Link Page 129-133 Print out page 133 as worksheet.	Getting Started with Code 1 – lesson 4 – Body Percussion	Getting Started with Code 1 – lesson 4 – App Practice, apply skills and reflection	Getting Started with code 1 – Lesson 5 – Robot Fun	Getting Started with code 1 – Lesson 5 – App Practice, apply skills and reflection	Getting Started with Code 1 – Lesson 6 – Robot Remote Control	Getting Started with Code 1 – Lesson 6 – App Practice apply skills and reflection
Example Screenshot/Poster					Debug meaning poster		
Video		Creating Class accounts for the Tynker App	Video 3 – Walk Jump Repeat.	Video 4 – Robot Fun	Video 5 - Glitchy Code	Video 6 – Remote control	Video 7 – Events
App Level/World Or real-world resource		Keynote in Apple iBook (Planning Link)	**Tynker** – Space Cadet Level 4- Walk jump repeat. Home Learning Link 9-13	Lesson Resources Printed PDF - Commands	**Tynker** – Space Cadet Level 5 – Glitchy Code Home Learning Link 14-19	Lesson Resources Printed PDF – Remote control	**Tynker** – Space Cadet Level 5 – Asteroids Home Learning Link 14-19
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered E-Safety 3.01	These lessons relate to the assessment statements in SIMS numbered Coding 3.01, 3.02, 3.03, 3.04, 3.05, 3.06					

Summer 2	1	2	3	4	5	6	7
Topic	Coding: You Can if you Follow the Rules **Tynker App iOS**		Coding: You Can Solve it **Tynker App iOS**		Coding Phone Apps		
Lesson	'If' Statements		Algorithms		HTML Code introduction		
LO	Understanding basic conditions		Create a simple algorithm		To introduce HTML coding. To show how phone/tablet apps are coded.	To use HTML code to show how phone/tablet apps are coded.	
Planning	Getting Started with Code 1 – Lesson 7 – Explain a Game	Getting Started with Code 1 – Lesson 7 – App Practice, apply skills and reflection	Getting Started with Code 1 – Lesson 8 – Solve the maze	Getting Started with Code 1 – Lesson 8 – App Practice, apply skills and reflection	Bitbox Bitbox Food Fight	Bitbox Bitbox Dancin' Hal	Bitbox Bitbox BlockCraft
Example Screenshot/ Poster	Conditional meeting Poster						
Video							
App Level/World Or real-world resource	**iPad Camera** Video record function to make videos	**Tynker** – Space Cadet Level 7 – Shifty Aliens Home Learning Link 19-End	Pen and paper, or Notes or **Sketches School**	**Tynker** – Space Cadet Level 8 – Blast Off! Home Learning Link 19-End			
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Coding 3.01, 3.02, 3.03, 3.04, 3.05, 3.06						

Computing Year 4

Learning Intentions

Year 4	
E-safety	Identifies a range of ways to report concerns about content
	Recognises acceptable/unacceptable behaviour
Computing / Digital Literacy	Selects a variety of software to accomplish given goals
	Understands the opportunities computer networks offer for collaboration
	Understands computer networks, including the internet
	To understand and use Email Technology
	To understand how search engines work and how results are ranked.
Coding	Design, creates and debug programs that accomplish specific goals
	Uses repetition in programs
	Controls or simulates physical systems
	Uses logical reasoning to detect and correct errors in programs
App Specific	Use word processing and presentation tools.
	Use film editing software

Autumn 1	1	2	3	4	5	6	7	8
Topic	E-safety: Google: Don't fall for fake Google Interland Scheme of work pages 35 – 69 Vocabulary – Page 36							E-safety:
Lesson	Pop-ups, catfishing and other scams	Who's this 'talking' to me?	Is that really true?	Spotting untrustworthy information online	If I were a search engine	Practising Internet Searches	Interland: Reality River	I am Internet Awesome
LO	To recognize ways people, steal personal information	To understand that people contacting you may not be who they say they are.	To recognise if online information is credible.	To develop skills to detect fake news and disinformation	To understand how search engines display results	To understand tips and tricks to get better search results	To put my learning into practice Play the game	To agree to the Be Internet Awesome pledge & Create an E-safety class assembly
Presentation	Slideshow 1	Slideshow 2	Slideshow 3	Slideshow 4	Slideshow 5	Slideshow 6	Slideshow 7	
Video	Introduction to Interland							
Planning	Link Page 37-42 Print pages 40-42 for children's worksheets	Link Page 43-48 Print page 45 for children's worksheets Answers are on pages 46-48	Link Page 49-54 Print page 54 for children's handouts	Link Page 55-61 Print page 61 for children's worksheets	Link Page 62- 64 Print page 64 for children's worksheets	Link Page 65-68 Print pages 67-68 for children's worksheets	Link Page 69 Play the online game. (Children search for "Interland" and play the red world reality river) Note scores and try to beat your own score. Google Interland	To read and sign the Be Internet Awesome pledge Print one out for each child. Child can sign the RED signature space. Test your e safety knowledge in Band Runner www.thinkuknow.co.uk/8_10/
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered E-safety 4.01, 4.02, 4.03, 4.04							

Autumn 2	1	2	3	4	5	6	7	8
Topic	Digital Literacy: Networks				Digital Literacy: Using Email.			
Lesson	Networks 1 – Map	Networks 2 - Router and messages game.	Networks 3 – Net	Networks 4 – Address	Email 1- Retrieve	Email 2 - Sending	Email 3 – Attaching	Email 4 – Collaborating.
LO	To understand what a computer network is, and how they can provide multiple services, such as the world wide web, and opportunities for collaboration and communication.	To understand the components of a computer network. To show how information is exchanged between devices.	To understand that the internet is the physical connection between computers and networks. To understand how data travels throughout a network.	To understand that devices on a network have a unique address Task – Find Website IP addresses.	To understand how email travels and how to retrieve it.	To send and reply to emails.	To attach a file/photo to an email. To understand the advantages of attaching files/photos to emails.	To use emails to communicate ideas. Using Microsoft word online and sharing the document with others via email.
Presentation	Connections Around the Home and School	Plan and resources for game.						
Video	Introduction to Networks - Video explanation of PowerPoint.	Video - Game Explanation	Video – What is the Internet (BBC)	Video – Finding website IP addresses	Video – How Email Works	Video – The Story of send	Video – How to attach a file to Email.	How to share a cloud document via Email
Planning	Lesson Plan, Objectives, Vocabulary and Success Criteria Worksheet 1 – Wi-Fi Vs Wireless. Worksheet 2 – Home devices	Use Lesson plan 3.5.2	Use Lesson Plan 3.5.3 Worksheet 3.5.3a	Use Lesson Plan 3.5.4 Worksheet 3.5.4a Resource 3.5.4a IP (Internet Protocol) Lookup Tool	Lesson Plan, Objectives, Vocabulary and Success Criteria Use lesson Plan 4.5.2	Use Lesson Plan 4.5.3	Use Lesson Plan 4.5.4	Use Lesson Plan 4.5.5
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 3.01, 3.02, 3.03, 3.04							

Spring 1	1	2	3	4	5	6
Topic	**Microsoft Word:** Word processing: creating a document		**PowerPoint:** Creating a presentation	**PowerPoint:** Design and transition	**Paint.net** or Autodesk **Sketchbook**	
Lesson	Creating a word document. Saving	Opening and editing a word document and Save As	Creating a presentation Saving	Opening and editing a PowerPoint and Save As	Photo editing – Changes and effects,	Photo editing – selecting and cropping.
LO	To create a word document and edit font	To open and edit word document	To create a PowerPoint and edit font	To re-open and edit PowerPoint	To layer images on top of each other. To create image effects To understand images can be changed or enhanced.	To understand the smart select function (Magic wand) To use the crop function
Presentation					Create a custom name plate. PowerPoint.	
Video						
Planning	Topic related Basic tasks in word: Basic tasks in Word Online:	Topic related Design and edit in Word:	Topic related Basic tasks in PowerPoint:	Changing fonts in a presentation: Changing colour of text on a slide: Adding bullets or numbers to text:	Using Paint.net – Follow PowerPoint lesson plan	
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 4.01, 4.02					

Spring 2	1	2	3	4	5	6
Topic	Coding: Getting Started Tynker App iOS	Coding: Think in Steps Tynker App iOS	Coding: Think in Fixes Tynker App iOS	Coding: Think in Circles Tynker App iOS	Coding: Think in Bits Tynker App iOS	Coding: Think in Sets Tynker App iOS
Lesson	Future Developer	Solving problems with Algorithms	Debugging	Looking for Loops	Composition and Decomposition	Abstraction
LO	Thinking like a developer	Understand and identify algorithms	Identify bugs and how to approach fixing them	Thinking efficiently and identifying loops	Understanding decomposition to solve problems	Understand abstraction to solve problems
Planning	Getting Started with Code 2 – Lesson 0	Getting Started with Code 2 – Lesson 1	Getting Started with Code 2 – Lesson 2	Getting Started with Code 2 – Lesson 3	Getting Started with Code 2 – Lesson 4	Getting Started with Code 2 – Lesson 5
Video	Video – Community tab introduction. Video – Creating Class accounts (To unlock week 5 and 6)				Cup Song	
Example Screenshot	(For the full planning, download the iBook)	Week 2.1 Week 2.2 Week 2.3	Week 3.1 Week 3.2 Week 3.3	Week 4.1 Week 4.2	Week 5.1 Week 5.2 Week 5.3	Week 6.1 Week 6.2 Week 6.3
App Level/World Or real-world resource	Tynker – Community tab	Tynker – Dragon Spells Lesson 1 – Dragon Eggs Keynote (Sandwich) PowerPoint (Sandwich) Home Learning Link 1-5	Tynker – Dragon Spells Lesson 2 – Blast through Keynote (Tunnel Bug) PowerPoint (Tunnel Bug) Home Learning Link 6-7	Tynker – Dragon Spells Lesson 3 –Deja Vu Keynote (Snake Pattern) PowerPoint (Snake Pattern) Home Learning Link 8-11	Tynker – Dragon Spells Lesson 4 – Twisted Trees Linked video file in Lesson – Cup song – requires plastic cups. Home Learning Link 12 - 15	Tynker – Dragon Spells Lesson 5 – Dragon Scrolls Keynote – Silly Sets PowerPoint – Silly Sets Home Learning Link 16 - 18
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Coding 4.01, 4.02, 4.03, 4.04, 4.05 and 4.06					

Summer 1	1	2	3	4	5	6	7
Topic	Digital Literacy: Photography	iMovie – Trailers		iMovie – Stop Motion (iMotion App)		Green Screen replacement (iMovie)	
Lesson	Perspective Photography	Create trailer using pictures	Create more complex video using a mixture of video and photo	Animation techniques Creating simple Stop motion	Animation techniques Creating simple Stop motion	Create a new report using a green screen	present and show final piece
LO	Select, use, and combine a variety of software on a range of digital devices to design and create a range of content	To develop camera skills and manipulation	To develop camera skills and manipulation	practise simple photography skills	practise simple photography skills	Use a variety of method to create a news report with a replacement background	Use a variety of method to create a news report with a replacement background
Video		Video – Overview of iMovie – (27:45 till 34:00)		Video – Overview of iMovie – (41:35 till End)		Video – Overview of iMovie – (34:00 till 41:35) Using Green Screen in iMovie Green Screen Example 1 Green Screen Example 2 Green Screen Example finalised Live Lesson Example	
Planning	Simon Haughton Planning PP: iPad Camera	Topic based if possible				Thunderstorm News Report Template Using iMovie on iPads	
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 4.01, 4.02	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 4.01, 4.02				These lessons relate to the assessment statements in SIMS numbered Digital Literacy 4.01, 4.02	

Summer 2	1	2	3	4	5	6	7
Topic	Think in Patterns	Think in Specifics	Think in Cycles	Think in and Outside the box	Think in Practice	Scratch Introduction	
Lesson	Forming Functions	Conditional Statements	While Loops and Nested Loops	Variables, Input and Output	Design User Interface		
LO	Understand how functions can make coding efficient	Understand conditional statements for different contexts	Understanding Loops in simple conditions	Understanding Variables to change values	Understanding User Interface and User Experiences		
Planning	Getting Started with Code 2 – Lesson 6	Getting Started with Code 2 – Lesson 7	Getting Started with Code 2 – Lesson 8	Getting Started with Code 2 – Lesson 9	Getting Started with Code 2 – Lesson 10		
Video							
Screenshot	Week 1.1 Week 1.2						
App Level/World Or real-world resource	**Tynker** – Dragon Spells Lesson 6 – Ancient Spells Refers back to Getting started with code 2 lesson 1 Home Learning Link 19 - 21	**Tynker –** Dragon Spells Lesson 7 – Catch me if you can. Pages and Safari required, Home Learning Link 22 - 27	**Tynker** – Dragon Spells Lesson 8 – The Long Road Refers back to lesson 1 – creating a sandwich, requires Keynote,	**Tynker** – Dragon Spells Lesson 9 – Gem Collector Requires Pages,	**Tynker** – Dragon Spells Lesson 10 – Dragon Maker Download linked Keynote template,		
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Coding 4.01, 4.02, 4.03, 4.04, 4.05 and 4.06						

Computing Year 5

Learning Intentions

Year 5	
E-safety	Understands how to keep sensitive data private
	Is discerning in evaluating digital content
	Understand, prevent and respond to Cyberbullying threats.
Computing / Digital Literacy	Combines a variety of software to accomplish given goals
	Selects, uses and combines software on a range of digital devices
	Analyses and evaluates data
	Designs and creates systems
Coding	Solves problems by decomposing them into smaller parts
	Uses selection in programs
	Works with variables
	Uses logical reasoning to explain how some simple algorithms work
	Uses logical reasoning to detect and correct errors in algorithms
App Specific	Create animations

Autumn 1	1	2	3	4	5	6	7	8
Topic	E-safety: Secure your secrets Google Interland Scheme of work pages 70 – 81 Vocabulary – Page 71				E-safety:	Digital Literacy: Plan an event		
Lesson	But that wasn't me!	How to build a great password	Keep it to yourself	Interland: Tower of Treasure	I am internet awesome	Select and research an event	Create a logo	Create a flyer to advertise
LO	To understand how someone else's actions can affect you!	To create a strong password	To customize privacy settings	To put my learning into practice	To agree to the Be Internet Awesome pledge & **Create an E-safety class assembly**	To create docs and collaborate using **Microsoft Word (online)** Pupils to collaborate digitally on the same document using "Share"	Use **Microsoft Publisher /Apple Pages** to create an image	To create an advert using **Microsoft Publisher**
Video	Introduction to Interland Jimmy Kimmel – How easy is it to get someone's password. Top Tip from Mr Charlton to create and remember different passwords						BBC Video:	BBC Video:
Presentation	Slideshow 1	Slideshow 2	Slideshow 3	Slideshow 4				
Planning	Link Page 73-75 Print page 75 for children's worksheets	Link Page 76-78 Print pages for children's worksheets Children to use www.howsecureismypassword.net to test passwords	Link Page 79-80 Google email account needed to demonstrate the privacy settings OR use the screen shots from the slideshow.	Link Page Play the online game. (Children search for "Interland" and play the red world reality river) Note scores and try to beat your own score. Google Interland	To read and sign the Be Internet Awesome pledge Print one out for each child. Child can sign the ORANGE signature space.	Basic tasks in Word:	Apple Slides: Word Art	Apple Slides: Publisher Guide
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered E-safety 5.01, 5.02, 5.03, 5.04					These lessons relate to the assessment statements in SIMS numbered Digital Literacy 5.01, 5.02		

Autumn 2	1	2	3	4	5	6	7	8
Topic	Digital Literacy: Spreadsheets – **Microsoft Excel**						Coding: **Scratch Desktop/Online**	
Lesson	Introduction to Spreadsheets Detailed Unit Planning:	Entering formulae into a spreadsheet Formula Prompt:	The importance of using a cell reference for recalculation	Changing data in spreadsheets to answer, 'what if?'	SUM formula Sum formula prompt:	Choosing the correct function	Christmas card competition	
LO	To identify the key elements of a spreadsheet	How spreadsheets can be used to perform quick, accurate calculations	To enter labels and numbers into a spreadsheet	Exploring spreadsheet models that allow the exploration of possible outcomes	To use SUM to calculate a set of numbers in a range of cells	That mathematical problems can be explored using a spreadsheet	To create an animation in Scratch Scratch Scratch teacher programs	
Video	Guide – Sending spreadsheets to pupils using Microsoft Teams Video – 1 The Wizards Challenge	Video 2 – Gold Mine	Video 3 – Recap Challenge Video 4 – Blank Spreadsheet	Video 5 – Sweet Problems	Video 6 – Race points Video 7 Shopping Bills	Video 8 - Pocket Money Video – 9 Register		
Planning	Download link to all spreadsheet examples Spreadsheet 1 – Wizard's Challenge	Spreadsheet 2 – Gold Mine	Spreadsheet 3 – Recap Challenge Blank Excel Spreadsheet	Spreadsheet 5 – Sweets Problem	Spreadsheet 6 – Race Points Spreadsheet 7 – Shopping Bills/Lunch Box:	Spreadsheet 8 – Pocket Money Spreadsheet 9 – Attendance Register:	Resource: Lesson Plan – Save Santa Scratch starter programs	
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 5.03						These lessons relate to the assessment statements in SIMS numbered Coding 5.01	

Spring 1	1	2	3	4	5	6
Topic	E-safety: Google Be Internet Brave Google Interland Scheme of work pages 111 – 139 Vocabulary – Page 112		Coding – **Lightbot Hour**			
Lesson	When to get help	Report it online, too.	Procedures		Loops	
LO	Recognize that seeking help for oneself or others is a sign of strength. Think out loud together about situations where talking it out can really help	Know about apps and services' community standards, or terms of service. Be aware of online tools for reporting abuse. Consider when to use them. Talk about why and when to report the abuse	Describe, Demonstrate and code using commands and sequences	Describe, Demonstrate and Debug with code	Describe, Demonstrate and Code using functions and loops	Describe, Demonstrate and Code using functions and loops
Video						
Presentation	Slideshow – When in doubt, Talk it out.					
Planning	Link Page 134-136 Worksheet	Link Page 137-138	**Lightbot hour** app (Free) World 2 Levels 1-6 Describe that the proc1 box (short for procedure 1) is an algorithm/a list of instructions, and Lightbot will do the instructions placed in Proc1 whenever they see the P1 code. The idea is that you would use P1 more than once.		**Lightbot hour** app (Free) World 3 Levels 1-6 Describe that the proc1 box (short for procedure 1) is an algorithm/a list of instructions, and Lightbot will do the instructions placed in Proc1 whenever they see the P1 code. The idea is that you would use P1 inside the P1 box itself the code loops.	
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered E-Safety 5.02 and 5.03		These lessons relate to the assessment statements in SIMS numbered Coding 5.01, 5.02, 5,03, 5.04			

Spring 2	1	2	3	4	5	6
Topic	Coding – **Scratch Desktop/Online**					
Lesson	Movement bounce and forever.	X and Y	If, repeat and Random	Variables 1	Variables 2	Music
LO	To understand how to create simple movement with blocks. Bounce on edge. How to make sprites to follow the mouse pointer.	To understand the 2 axis of the workspace. To understand what minus numbers do to code. To move the spite using direction code.	To create a sprite that is computer controlled. To use the random value. To use the wait function and the hide and show blocks. To use the if button to code the sprites to complete code when a criteria has been fulfilled. (One sprite touching another)	To understand the meaning of a variable. To be able to use variables for a game score, and other values. How to copy code from one sprite to another. To play test the game and debug any problems	To create a music file. To export the music file. To import the music file to our program.	To create a title screen and a game over screen. Code the game so these appear when needed. Code the sprites to hide and show when needed to not obscure the new screens.
Video	YouTube – UP Down left Right	YouTube – X&Y				
Planning	PowerPoint (Fish Level) Slides 1-4	PowerPoint (Fish Level) Slides 5-6	PowerPoint (Fish Level) Slides 7-9	PowerPoint (Fish Level) Slides 10 -16	PowerPoint (Fish Level) Slides 17 – 18	PowerPoint (Fish Level) Slides 18 – 20 Beep Box Music Maker
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Coding 5.01,5.02 ,5.03, 5.04, 5.05					

Summer 1	1	2	3	4	5	6	7
Topic	Animation:			Digital Literacy: Internet research and website design			
Lesson	Create animated GIF using Keynote	Pivot Stick Animator	Pivot Stick Animator	What makes a good webpage?	Page Layout	Type the text Images	Hyperlinks Publishing the page
LO	Use still images to produce an animation	Combining individual frames to perceive movement	Creating custom-made, creative animations	I can evaluate webpages	I can create a webpage layout	I can add text to a webpage I can add images to a webpage	I can add hyperlinks into a webpage I can publish and share my webpage
Planning	(Use Video Below)	Lesson plans:1-3	Lesson plans:4-7	Lesson plans and resources:			
Presentations		OneDrive Resources					
Video	Use video guide to create animation (Video time 28:00 to 41:20)	Introduction – Music Flipbook Video 1 - Pivot Animator Basics	Video 2 – Pivot Importing	BBC Bitesize video: What makes a good website? Video – Using SharePoint to create a website.			Video – Website hyperlinks and publishing, QR Codes
Link	Keynote App	Pivot Animator Download:		Microsoft SharePoint: - For the Children: Get them to log into Office365 and choose SharePoint from the menu.			
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 5.01 and 5.02			These lessons relate to the assessment statements in SIMS numbered Digital Literacy 5.01 and 5.02			

Summer 2	1	2	3	4	5	6	7
Topic	Coding - **Microsoft Kodu**						
Lesson	Create Land	Create Sprites Code Sprites	Create Scenery Create Enemies	Create Walls Create Maze Magic Tools		Collectables	Levels
LO	How to use the Kodu tools to create a 3D environment.	How to create and control sprites in this game world. Control with input or automatically. Including shooting, following a path, random wandering.	How to create scenery such as trees, factories, clouds, and lakes. Change the scenery settings (Day/night, waves)	Building a maze game 1 – How to build a maze with different colour walls. Building a maze game 2 – How to use smart tools to create our maze.		Building a maze game 3 – How to fill our maze with collectibles and enemies.	Building a maze game 4 – How to create a multi-level maze game using different levels.
Video							
Planning							
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Coding 5.01,5.02 ,5.03, 5.04, 5.05						

Computing
Year 6

Learning Intentions

Year 6	
E-safety	Understand, prevent and respond to Cyberbullying threats.
	Is discerning in evaluating digital content
Computing / Digital Literacy	Combines a variety of software to accomplish given goals
	Selects, uses and combines software on a range of digital devices
	Understands computer networks, including the internet
	Understands the opportunities computer networks offer for collaboration
	Use different programming languages to create a program\app
Coding	Solves problems by decomposing them into smaller parts
	Uses selection in programs
	Works with variables
	Uses logical reasoning to explain how some simple algorithms work
	Uses logical reasoning to detect and correct errors in algorithms
App Specific	Create and manipulate 3D Models.
App or software used within the year	

Autumn 1	1	2	3	4	5	6	7	8
Topic	E-safety: It's cool to be kind Google Interland Scheme of work pages 83 – 109 Vocabulary – Page 84							
Lesson	Lesson 1.1 Noticing feelings	Lesson 1.2 Practicing empathy	Lesson 2.1 Your kindness gram	Lesson 2.2 Ways to show kindness	Lesson 3 From negative to nice	Lesson 4 About your tone	Lesson 5 How words can change the whole picture	Lesson 6 Interland: Kind Kingdom
LO	To respond to bullying online	To respond to bullying online	To discuss different ways to respond to bullying	To discuss different ways to respond to bullying	To turn negative interactions not positive ones	To interpret emotions behind texts and messages	To model behaviour to others	To put my learning into practice and to read and sign the Be Internet Awesome pledge Test your e safety knowledge in Band Runner www.thinkuknow.co.uk/8_10/
Presentation	Slideshow	Slideshow	Slideshow	Slideshow	Slideshow	Slideshow	Slideshow	Slideshow
Video	Introduction to Interland							
Planning	Link Page 85-89 Google Interland	Link Page 90-92	Link Page 93-96	Link Page 97-99	Link Page 100-101	Link Page 102	Link Page 103-107	Google Interland Link Page 108
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered E-safety 6.01, 6.02, 6.03, 6.04							

Autumn 2	1	2	3	4	5	6	7	8
Topic	Digital Literacy: SketchUp						Computer network lesson	Computer network real life
Lesson	Lesson 1: 2D to 3D Drawing a 2D/3D shape. SketchUp:LINK	Lesson 2: Detail Adding detail to 3D drawings	Lesson 3: Inside Inside a 3D shape	Lesson 4: Furniture Adding and manipulating 3D models	Lesson 5: A Table Creating a complex 3D model	Lesson 6: Your Room Creating a 3D model of my own design	Battleships – Linear and Binary.	Battleships – Hashing.
LO	I can draw a 2D shape or line. I can manipulate 2D shapes into 3D shapes.	I can use the measure tool to draw shapes. I can use inference points to draw lines and shapes.	I can double click to copy, push/pull and offset.	I can import models from the 3D warehouse. I can copy and manipulate 3D models.	I can select the tools I need for different features. I can use the main tools independently.	I can use all the main tools on the SketchUp toolbar.	To understand how computer networks, find data using different searches	To understand how hashtag searching works.
Video	Video –Sketchup Basics Video 1 – Mr C – Lesson 1 Video – Sketchup YouTube 1	Video 2 – Mr C – Lesson 2 Video – Sketchup YouTube 2	Video 3 – Mr C – Lesson 3 Video – Sketchup YouTube 3 Part 1	Video 4 – Mr C – Lesson 4 Video – Sketchup YouTube 3 Part 2	Video 5 – Mr C – Lesson 5 Video – Sketchup YouTube 4	Video 6 – Mr C – Lesson 6	Video Lesson Guide	
Presentation	PowerPoint 1	PowerPoint 2	PowerPoint 3	PowerPoint 4	PowerPoint 5	PowerPoint 6	Battleship game	
Planning	How to set up SketchUp. Lesson 1:	Lesson 2:	Lesson 3:	Lesson 4:	Lesson 5:	Lesson 6:		
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Digital Literacy 6.01, 6.02						These lessons relate to the assessment statements in SIMS numbered Digital Literacy 6.03	

Spring 1	1	2	3	4	5	6
Topic	E-safety: social media	E-safety: Fake News	Digital Literacy: Making Videos		Coding: App Design	
Lesson	Why is social media Free?	Fake News in real life.	To create a weather report script and to film green screen footage.	To add backgrounds and digital effects to our green screen videos.	Design your own app	Create your own app
LO	To understand why social media, web search and YouTube are free to use.	To understand bias and fake news in real life To understand that real damage and pain can be caused by fake news.	To improve our our work from Year 4. Able to create a short video using green screen.	To add digital effects to our videos using **Windows Photos**	Understanding the app development process. To design a school app to help point parents to important parts of a school website.	Understand app development To choose 4 sections of school website (maybe children's preferred secondary school)
Presentation	PowerPoint SM.	PowerPoint FN			Mock-up app design in Keynote/ PowerPoint	Mock-up app design in Keynote / PowerPoint
Planning	Kahoot Quiz – Why Free? Kahoot Quiz 1 – 50 million Users Kahoot Quiz 2 – True or False		Video – Overview of iMovie – (34:00 till 41:35) Using Green Screen in iMovie Green Screen Example 1 Green Screen Example 2 Green Screen Example finalised Live Lesson Example	Video – Add digital special effects to a video.	Getting Started with Code 2 – Lessons 1 – 5 optional activity – app development **Keep these plans safe for next term.**	Getting Started with Code 2 – Lessons 6 – 10 optional activity – app development **Keep these plans safe for next term.**
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered E-safety 6.01. 6.02		These lessons relate to the assessment statements in SIMS numbered Digital Literacy 6.01, 6.02		These lessons relate to the assessment statements in SIMS numbered Coding 6.01, 6.02, 6.03, 6.04	

Spring 2	1	2	3	4	5	6	7
Topic	App Development - **MIT App Inventor** (Website)						
Lesson	Introduction to App Inventor	Insert Text Boxes/Pictures	Using the QR Feature	Create Buttons/Actions	Create Screens	Finalise and test	Export App for use on home devices.
LO	To understand how to start an app building project.	To understand how to use the insert and resize feature.	How to see and test your build in real time.	How to create buttons with website links.	How to create different Screens in the app and how to link to them.	Test and debug our app to fix any issues.	How to upload the created app to Microsoft teams.
Video	Introduction to MIT App Inventor	How to add elements to your app.	Guide MIT App Inventor QR Codes	How to create working buttons.	How to Navigate to different screens	How to checklist your app using iPad and Microsoft ToDo	How to download your app on your home devices.
Planning	How to use revisit link App Inventor Link	How to insert items and resize them.	How to live test your app.	How to create internet buttons and links.	How to make different screens and link to them.		How to export my app. What is an APK?
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Coding 6.01, 6.02, 6.03, 6.04						

Summer 1	1	2	3	4	5	6	7
Topic	E-safety:	Coding: HTML Coding	Coding: Python Coding	Digital Literacy: Child Net video competition			
Lesson	Password security and scam emails.	Introduction to HTML	Introduction to Python- The difference between visual and scripted programming languages.	Initial lesson to explain the project To create and plan the contents of the video	Script writing (Literacy links) Making props (DT/Art)	Using iMovie To create a video. Upload to OneDrive Use Windows Photos to add digital effects (See Video)	
LO	To discuss identity theft and how to protect about it. To understand 2 factor authentications.	I can explain that web pages are written using HTML; use basic HTML tags; remix webpages using X-Ray Goggles	Understand that Python is the language that powers websites and apps.	To discuss the video competition and the theme To plan a storyboard	To write a script To create props	To record a video	
Presentation	PowerPoint - Password & Scams						
Video						Video – Add digital special effects to a video.	
Planning	LINK PowerPoint Google Interland	Barefoot Computing: Resources X Ray Googles Guide	A visual introduction to Python:	Link: 6 Frame Storyboard:			
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered E-safety 6.02	These lessons relate to the assessment statements in SIMS numbered Coding 6.01, 6.02, 6.03, 6.04		These lessons relate to the assessment statements in SIMS numbered Digital Literacy 6.01, 6.02			

Summer 2	1	2	3	4	5	6	7
Topic	Coding: **Swift Playgrounds** Think Like a computer	Coding: **Swift Playgrounds** Think like a Detective	Coding: **Swift Playgrounds** Think Efficiently		Coding: **Swift Playgrounds** The Incredible Code Machine	Coding: **Swift Playgrounds** Think Logically	Coding: **Swift Playgrounds** Think Logically
Lesson	Commands and sequences	Debugging	Functions and a Bit of Loops		Problem Solving	Conditional Code	Conditional Code Practice
LO	Describe, Demonstrate and code using commands and sequences	Describe, Demonstrate and Debug with code	Describe, Demonstrate and Code using functions and loops		Design programmes to solve challenges with functions and loops	Demonstrate and code using algorithms	Describe, Demonstrate and Code using conditional code and logic
Video							
Planning	Everyone Can Code 1 – lesson 1	Everyone Can Code 1 – Lesson 2	Everyone Can Code 1 – Lesson 3 Pattern Maker Activity	Everyone Can Code 1 – Lesson 3, practice in Swift Playgrounds	Swift Playgrounds: Code Machine	Everyone Can Code 1 – lesson 4 – Scavenger Hunt	Everyone Can Code 1 – Lesson 4 – coding in Swift Playgrounds
Suggested Assessment Statements	These lessons relate to the assessment statements in SIMS numbered Coding 6.01, 6.02, 6.03, 6.04						

Equivalent Programs

It is good practice to mention the equivalent services from competing companies, as real world will use different software suites. Functions and skills learned in one are often transferable to others.

Vendor	Microsoft	Apple	Google	OTHER
Word Processing	Microsoft Word	Apple Pages	Google Docs	WPS Office
Spreadsheet	Microsoft Excel	Apple Numbers	Google Sheets	WPS Office
Presentation	Microsoft PowerPoint	Apple Keynote	Google Slides	WPS Office

Appendix

Online storage	Microsoft OneDrive	Apple iCloud	Google Drive	Dropbox
Website Creation	Microsoft SharePoint		Google Sites	
Page layout publishing	Microsoft Publisher	Apple Pages	Lucidpress	WPS Office
Photo Editing	Photos	Apple Photos	Google Drawings	Paint.net

Other Coding Apps	 Kodable	 Microsoft Kodu	 Lightbot	 A.L.E.X
	 Little Red Coding club			
Useful apps	 Google Earth	 Google Expeditions	 Epic Reading app.	 AR-Kid Space.

Computing

Supplement/After School Computer Club Lessons

Appendix

KS1

iPad Apps	1	2	3	4	5	6	7
Topic	Coding: Algorithms	Coding: Algorithms	Coding: Algorithms	Coding: Algorithms	Coding: Algorithms	Coding: Algorithms	Coding: Algorithms
Lesson	Kodable	Kodable	Kodable	Kodable	Introduction to Lightbot	Lightbot: Procedures	Lightbot: Procedures
LO	To use directional instructions to create algorithms to solve puzzles. To learn the team DEBUGGING and how we fix code.		To understand the **IF** condition. To understand the **repeat** function. To understand the **procedure** function		Plan and develop algorithms To solve problems by splitting them into smaller parts.	To understand one block (instruction) can run multiple other blocks (instructions)	To understand one block (instruction) can run multiple other blocks (instructions)
Planning	Kodable Online Create Free Kobable Classroom codes HERE. Lesson Plans				Planning Introduction Lightbot levels 1-1 to 1-8 Lightbot Online	Lightbot levels 2-1 to 2-6	Lightbot levels 3-1 to

Appendix

LKS2

Scratch	1	2	3	4	5	6	7
Topic	Coding:	Coding:	Coding:	Coding:	Coding:	Coding:	Coding:
Lesson	Movement bounce and forever.	X and Y	If, repeat and Random	Variables 1	Variables 2	Music	Presentation
LO	To understand how to create simple movement with blocks. Bounce on edge. How to make sprites to follow the mouse pointer.	To understand the 2 axis of the workspace. To understand what minus numbers do to code. To move the spite using direction code.	To create a sprite that is computer controlled. To use the random value. To use the wait function and the hide and show blocks. To use the if button to code the sprites to complete code when a criteria has been fulfilled. (one sprite touching another)	To understand the meaning of a variable. To be able to use variables for a game score, and other values. How to copy code from one sprite to another. To play test the game and debug any problems		To create a music file. To export the music file. To import the music file to our program.	To create a title screen and a game over screen. Code the game so these appear when needed. Code the sprites to hide and show when needed to not obscure the new screens.
Presentation	PowerPoint (Fish Level) Slides 1-4	PowerPoint (Fish Level) Slides 5-6	PowerPoint (Fish Level) Slides 7-9	PowerPoint (Fish Level) Slides 10 -16		PowerPoint (Fish Level) Slides 17 – 18	PowerPoint (Fish Level) Slides 18 – 20
Planning	LINK YouTube	LINK YouTube				LINK BeepBox	

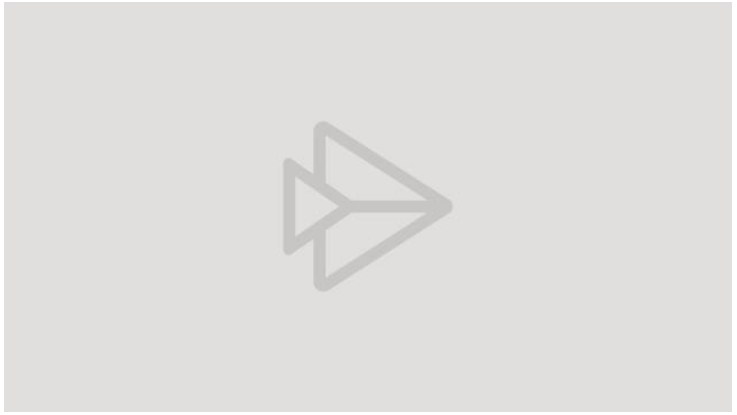
Appendix

UKS2

MIT App Inventor	1	2	3	4	5	6	7
Topic	App Development - MIT App Inventor	App Development - MIT App Inventor	App Development - MIT App Inventor	App Development - MIT App Inventor	App Development - MIT App Inventor	App Development - MIT App Inventor	App Development - MIT App Inventor
Lesson	Introduction to App Inventor	Insert Text Boxes/Pictures	Using the QR Feature	Create Buttons/Actions	Create Screens	Finalise and test	Export App for use on home devices.
LO	To understand how to start an app building project.	To understand how to use the insert and resize feature.	How to see and test your build in real time.	How to create buttons with website links.	How to create different Screens in the app and how to link to them.	Test and debug our app to fix any issues.	How to upload the created app to Microsoft teams.
Video	How to use revisit link	How to insert items and resize them.	How to live test your app.	How to create internet buttons and links.	How to make different screens and link to them.		How to export my app. Difference between APK and
Planning	How to create a class code. App Inventor Link Desktop Shortcut For App Inventor.						

Appendix

Home Learning – Coding



Or Click HERE

Appendix

Resources From….

Google

Apple

Microsoft

BBC Bitesize

SketchUp

Pivot animator

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CODING FOR KIDS