Computing “End Point” Assessment Plan

CS – Computer Science strand IT – Information Technology strand DL – Digital Literacy strand

	1st Half Term (32 days - 6 weeks)	2nd Half Term (45 days - 9 weeks)	1st Half Term (34 days - 7 weeks)	2nd Half Term (30 days - 6 weeks)	1st Half Term (24 days - 5 weeks)	2nd Half Term (30 days - 6 weeks)
1	Unit 1.1 Online Safety & Exploring Purple Mash Weeks – 4 Programs – Various End Point: Lesson 4: Children to use features of PurpleMash independently.	Unit 1.2 Grouping & Sorting Weeks – 2 Programs – 2DIY End Point: Lesson 2: Children to sort items against specific criteria successfully. Unit 1.3 Pictograms Weeks – 3 Programs – 2Count End Point: Lesson 3: Children to use a pictogram to record results independently. Unit 1.4 Lego Builders Weeks – 3 Programs – 2DIY End Point: Lesson 3: Children to create and debug simple algorithms independently.	Unit 1.5 Maze Explorers Weeks – 3 Programs – 2Go End Point: Lesson 3: Children to use a pictogram to record results independently. Unit 1.8 Spreadsheets Weeks – 3 Programs – 2Calculate End Point: Lesson 3: Children to use specific functions of a spreadsheet independently.	Unit 1.6 Animated Story Books Weeks – 5 Programs – 2Create A Story End Point: Lesson 5: Children to add specific features (based on prior learning) to an e-book independently.	Unit 1.7Coding Weeks – 6 Programs – 2Code End Point: Lesson 6: Children to use a variety of code and computational thinking (based on prior learning) independently to program objects.	Unit 1.7 Coding Weeks – 1 Programs – 2Code Practical Computing Activity (BeeBots) - https://www.barefootcomputing.org/resources/bee-bots-basics-activity End Point: As before. Unit 1.9 Technology outside school Weeks – 2 Programs – Various End Point: Lesson 2: Children to record examples where technology is used away from school independently.

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2	Unit 2.1 Coding Weeks – 5 Programs – 2Code Practical Computing Activity (BeeBots) - https://www.barefootcomputing.org/resources/bee-bots-1-2-3-programming End Point: Lesson 5: Children to plan and use algorithms in programs successfully to achieve a result.	Unit 2.3 Spreadsheets Weeks – 4 Programs – 2Calculate End Point: Lesson 4: Children to create and manipulate data on a spreadsheet for a purpose. Unit 2.8 Presenting Ideas Weeks – 4 Programs – Various End Point: Lesson 4: Children to present fact-file (based on prior learning) to others.	Unit 2.2 Online Safety Weeks – 3 Programs – Various End Point: Lesson 2: Children to open and send emails successfully and link it to real life experiences.	Unit 2.4 Questioning Weeks – 5 Programs – 2Question, 2Investigate End Point: Lesson 5: Children able to use a database and search tools to answer simple questions.	Unit 2.5 Effective Searching Weeks – 3 Programs – Browser End Point: Lesson 3: Children to create a leaflet to consolidate knowledge of effective Internet searching.	Unit 2.6 Creating Pictures Weeks – 5 Programs – 2PaintAPicture End Point: Lesson 5: Children to create art work based on a range of artists from current and previous lessons.

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3	Unit 3.5 Email (including email safety) Weeks – 6 Programs – 2Email, 2Connect, 2DIY End Point: Children to read and respond to a series of email communications and attach files appropriately and use email communication to explore ideas.	ToodleBit Unit 1 & 2 Micro:Bit Number of Weeks – 6 Main Programs – ToodleBit CS End Point: Lesson 6: Children are able to use Computational Thinking skills to create a physical micro:bit project (e.g. snowflake). Unit 3.2 Online safety Weeks – 3 Programs – Various End Point: Lesson 3: Children to relate to how cyberbullying (and prior learning) links to staying safe online.	Unit 3.3 Spreadsheets Weeks – 3 Programs – 2Calculate End Point: Lesson 3: Children to create and manipulate data on a spreadsheet for a purpose, using advanced mode independently. Unit 3.4 Touch Typing Weeks – 4 Programs – 2Type End Point: Lesson 4: Children are able to touch type with both hands with some accuracy.	Unit 3.6 BranchingDatabases Weeks – 4 Programs – 2Question End Point: Lesson 4: Children to create, use and debug their own branching database successfully.	Unit 3.8 Graphing Weeks – 3 Programs – 2Graph End Point: Lesson 2: Children to solve an investigation and present results in a graphical form independently.	Unit 3.7Simulations Weeks – 3 Programs – 2Simulate, 2Publish End Point: Lesson 3: Children to understand what a simulation is and are able to analyse and evaluate a simulation.

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4	Unit 4.6 Animation Weeks – 3 Programs – 2Animate End Point: Lesson 3: Children to have created a 'stop motion' animation, using skills from prior learning. Unit 4.7 Effective Search Weeks – 3 Programs – Browser End Point: Lesson 2: Children to use search technology effectively to answer questions accurately.	Unit 4.4 Writing for different audiences Weeks – 5 Programs – 2Email, 2Connect, 2DIY End Point: Lesson 5: Children have produced pieces of work that are linked to the scenarios from the unit accurately. Unit 4.5 Logo Weeks – 4 Programs – Logo End Point: Lesson 4: Children to have been able to complete a series of tasks in current as well as prior learning, based on 'Computational Thinking' tasks.	ToodleBit Unit 3 & 4 Micro:Bit Number of Weeks – 6 Main Programs – ToodleBit CS End Point: Lesson 6: Children are able to use Computational Thinking skills to create a physical micro:bit project, using LEDS (rock, paper, scissors) and use external outputs (traffic light model and musical keyboard).	Unit 4.3 Spreadsheets Weeks – 6 Programs – 2Calculate End Point: Lesson 4: Children are able to create and manipulate data in a spreadsheet, based on real-life contexts, using advanced mode.	Unit 4.2 Online safety Weeks – 4 Programs – Various End Point: Lesson 4: Children to articulate the positives and negatives that technology provides over a range of topics.	Unit 4.8 Hardware Investigators Weeks – 2 End Point: Lesson 2: Children to recall the different parts of a computer independently.

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5	Unit 5.4Databases Weeks – 4 Programs – 2Question, 2Investigate End Point: Lesson 4: Children to create a database around a certain topic and use search functions independently.	Unit 5.7 Concept Maps Weeks – 4 Programs – 2Connect End Point: Lesson 4: Children to create a concept map independently for a range of topics across the unit.	Unit 5.2 Online safety Weeks – 3 Programs - Various End Point: Lesson 3: Children to articulate the positives and negatives that technology provides over a range of topics. Unit 5.6 3D Modelling Weeks – 4 Programs – 2Design and Make End Point: Lesson 4: Children to create a successful 3D model, based on a specific topic.	ToodleBit Unit 5 & 6 Micro:Bit Number of Weeks – 6 Main Programs – ToodleBit CS End Point: Lesson 6: Children are able to use Computational Thinking skills to use simulators to check as to whether inputs and outputs are correct (rollercoaster) and use external outputs using if and while conditions (stopwatch).	Unit 5.5Game Creator Weeks – 5 Programs – 2DIY 3D End Point: Lesson 4: Children to create and share a working game, including a range of features, based on prior learning.	Unit 5.3 Spreadsheets Weeks – 6 Programs – 2Calculate End Point: Lesson 6: Children are able to create and manipulate data and formulae in a spreadsheet, based on real-life contexts, using advanced mode.

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6	Unit 6.7 Quizzing Weeks – 6 Programs – 2Quiz, 2DIY, Text Toolkit, 2Investigate End Point: Lesson 6: Children to create a successful quiz, based on prior learning skills from the unit.	Unit 6.6 Networks Weeks – 3 End Point: Lesson 3: Children are able to discuss differences between different types of network and relate it to real life applications. Unit 6.4Blogging Weeks – 5 Programs – 2Blog End Point: Lesson 5: Children to successfully create meaningful, accurate blog posts independently and to peer-assess other's work.	Unit 6.5 TextAdventures Weeks – 5 Programs – 2Code, 2Connect End Point: Lesson 4: Children to successfully create a map-based text adventure game, using a range of commands and 'Computational Thinking' skills.	Unit 6.3 Spreadsheets Weeks – 5 Programs – 2Calculate End Point: Lesson 5: Children are able to create and manipulate data and formulae in a spreadsheet, based on real-life contexts, using advanced mode.	Unit 6.2 Online safety Weeks – 2 Programs – Various End Point: Lesson 2: Children to articulate the positives and negatives that technology provides over a range of topics.	ToodleBit Unit 7 & 8 Micro:Bit Number of Weeks – 6 Main Programs – ToodleBit CS End Point: Lesson 6: Children are able to use Computational Thinking skills to code a physical project with multiple sensors and outputs (motion sensor robot and anenometer).

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This document will be used to give a meaningful “end point” to each unit, to which children will be assessed on specific Computing National Curriculum (NC) objectivesas to whether they are:

Not Achieved (WTS)

Achieved (EXS)

Securely Achieved (GDS)

This will help us to gain an overall picture of where children are across the different strands of Computing and the subject as a whole. Teachers will assess children during the above lessons on PurpleMash, using '2Do' tasks and providing a judgement within PurpleMash.

See below for each NC objective for each unit of work:

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Year 1 Assessments

Strand	NC Objective	Found in Unit:
Computer Science	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	1.4
		1.5
		1.7
	Create and debug simple programs.	1.5
		1.7
	Use logical reasoning to predict the behaviour of simple programs.	1.5
		1.7
Information Technology	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	1.2
		1.3
		1.6
		1.7
		1.8
Digital Literacy	Recognise common uses of information technology beyond school.	1.9
	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.	1.1

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Year 2 Assessments

Strand	NC Objective	Found in Unit:
Computer Science	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	2.1
	Create and debug simple programs.	2.1
	Use logical reasoning to predict the behaviour of simple programs.	2.1
Information Technology	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	2.3
		2.4
		2.5
		2.6
		2.7
		2.8
Digital Literacy	Recognise common uses of information technology beyond school.	2.5 and in other units when appropriate
	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.	2.2 and in all units when appropriate

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Year 3 Assessments

Strand	NC Objective	Found in Unit:
Computer Science	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	3.1
	Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	3.1
	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	3.1
	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.	3.5
Information Technology	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	See units 2.5 and 4.7
	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.	3.4 3.3 3.5 3.6 3.7 3.8
Digital Literacy	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	3.2 3.5

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Year 4 Assessments

Strand	NC Objective	Found in Unit:
Computer Science	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	4.1
		4.5
	Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	4.1
		4.5
	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	4.1
		4.5
	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.	4.2
		4.7
		4.8
Information Technology	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	4.7
	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.	4.1
		4.3
		4.4
		4.6
Digital Literacy	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	4.2 and discussed in other units

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Year 5 Assessments

Strand	NC Objective	Found in Unit:
Computer Science	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	5.1
		5.5
	Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	5.1
	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	5.1
	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.	5.2
Information Technology	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	See Unit 4.7
	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.	5.1
		5.3
		5.4
		5.5
		5.6
		5.7
Digital Literacy	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	5.2 and discussed in other units

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Year 6 Assessments

Strand	NC Objective	Found in Unit:
Computer Science	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	6.1
		6.5
	Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	6.1
		6.5
	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	6.1
		6.5
	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.	6.2
		6.4
		6.6
Information Technology	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	6.2
	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.	6.1
		6.3
		6.4
		6.5
		6.7
Digital Literacy	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	6.2
		6.4 and discussed in other units

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Evidence of learning within Computing may be found with the following Early Learning Areas:		
Understanding of the world	**30 -50 months**	• To know how to operate simple equipment. • To show an interest in technological toys with knobs or pulleys, or real objects. • To show skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. • To know that information can be retrieved from computers.
	40 - 60 months	• To complete a simple program on a computer. • To interact with age-appropriate computer software.
	ELG	• To recognise that a range of technology is used in places such as homes and schools. • To select and use technology for particular purposes.