Computing (Purple Mash) Curriculum Overview

Year R						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
ELG and DM links	**Understanding the World** Continue developing positive attitudes about the differences between people. Comment on images of familiar situations in the past. **Mathematics** Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' **Expressive arts and design** Return to and build on their previous learning, refining ideas and developing their ability to represent them.	**Building Relationships** Work and play cooperatively and take turns with others **Understanding the world** Use all their senses in hands-on exploration of natural materials. Explore the natural world around them. **Gross Motor Skills** Negotiate space and obstacles safely, with consideration for themselves and others; **Mathematics** Discuss routes and locations, using words like 'in front of' and 'behind'. Extend and create ABAB patterns – stick, leaf, stick, leaf. Notice and correct an error in a repeating pattern. Continue, copy and create repeating patterns. Make patterns with varying rules (including AB, ABB and ABBC) and objects and invite children to continue the pattern. **Active Learning** Respond to new experiences that you bring to their attention	**The Natural World** Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. **Understanding the world** -Plant seeds and care for growing plants. Begin to understand the need to respect and care for the natural environment and all living things. **Building relationships** Work and play cooperatively and take turns with others; **Active Learning** Respond to new experiences that you bring to their attention **Creating and Critically thinking** Review their progress as they try to achieve a goal. Check how well they are doing **Mathematics** Discuss routes and locations, using words like 'in front of' and 'behind'. Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'	**Building relationships** Work and play cooperatively and take turns with others **Creating and thinking critically** Review their progress as they try to achieve a goal. Check how well they are doing. **Understanding the world** -Talk about members of their immediate family and community. - Name and describe people who are familiar to them - Draw information from a simple map **Mathematics** -Continue, copy and create repeating patterns -Make patterns with varying rules (including AB, ABB and ABBC) and objects and invite children to continue the pattern - Discuss routes and locations, using words like 'in front of' and 'behind' **Speaking** Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary	**Communication and Language** Understand a question or instruction that has two parts **Understanding the world** Comment on images of familiar situations in the past Explore how things work. Talk about the differences between materials and changes they notice. **Playing and exploring** Plan and think ahead about how they will explore or play with objects. **Creating with materials** Make use of props and materials when role playing characters in narratives and stories **Building relationships** Work and play cooperatively and take turns with others **Expressive art and design** Develop storylines in their pretend play Develop their own ideas and then decide which materials to use to express them **PSED** Play with one or more other children, extending and elaborating play ideas	**Active Learning** Bring their own interests and fascinations into early years settings. Respond to new experiences that you bring to their attention Begin to correct mistakes themselves. **Creating and thinking critically** Help children to extend their ideas through sustained discussion that goes beyond what they, and youhave noticed. **Communication and language** Use talk to help work out problems and organise thinking and activities, and to explain **Mathematics** -Count objects, actions, and sounds. - Compare numbers. Select, rotate and manipulate shapes to develop spatial reasoning skills **Expressive arts and design** Provide opportunities to work together to develop and realise creative ideas.
	Barefoot Busy Bodies To label basic parts of the body. • Head • Arm • Tummy • Leg Recognise how I have changed since I was a baby. Follow a basic algorithm – heads shoulders knees and toes dance	*Barefoot Awesome autumn* To be able to order instructions (recipe) Following an algorithm (making soup) To be able to find my way through a maze To create a natural pattern	*Barefoot Springtime* To be able to recognise the key features of a scarecrow To work out how solve a problem (protecting the seeds) To be able to give directions To be able to sequence pictures To be able to follow pictorial instructions	*Barefoot People who help us* To be able to navigate a simple map To identify patterns on emergency vehicles To be able to create my own pattern To be able to identify the key features of a uniform	*Barefoot Boats Ahoy!* To be able to predict if something floats or sinks To be able to sort objects into floating and sinking To be able to role-play different boat activities To be able to follow instructions to make a simple boat	*Barefoot Summer fun!* To be able to organise objects into a visual pictogram To be able to create an imaginary map To be able to recognise 2D shapes in pictures To be able to create my own seaside picture using 2D shapes.

Year 1						
Computing Curriculum		**Digital literacy** To log in safely. To start to understand the idea of 'ownership' of their creative work. **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	**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. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.	**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. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.	**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.	**Information Technology** Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
Computing outcomes		<u>Online safety</u> To be able to keep my login information safe To be able to save my work in a safe place <u>Lego builders</u> To be able to explain that an algorithm is a set of instructions To be able to work out what is wrong when the steps are out of order in instructions. To be able to explain that a computer program turns an algorithm into code that the computer can understand	<u>Maze explorers</u> To be able to make good guesses of what is going to happen in a program. For example, where the turtle might go. To be able to explain that an algorithm is a set of instructions. <u>Pictograms</u> To be able to change content on a file such as text, sound and images To be able to name my work. To be able to save my work. To be able to find my work.	<u>Coding</u> To be able to say that if something does not work how it should it is because my code is incorrect. To be able to try and fix my code if it isn't working properly To be able to explain that a computer program turns an algorithm into code that the computer can understand	<u>Grouping and sorting</u> To be able to apply a logical process when sorting and grouping a range of objects I know what sound, pictures and text are <u>Technology outside of school</u> To be able to say what technology is. To be able to say what examples of technology are in school. To be able to say what examples of technology are at home.	<u>Animated stories</u> To be able to add sound, pictures and text to a program such as 2Create a Story. To be able to change content on a file such as text, sound and images

Year 2						
	Digital Literacy 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. **Digital Literacy** Recognise common uses of information technology beyond school.	**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. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.	**Information Technology** Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	**Information Technology** Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	**Information Technology** Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	
Computing Outcomes						
	Online safety To be able to report unkind behaviour and things that upset me online, to a trusted adult To be able to see where technology is used at school such as in the office. To be able to share work and communicate electronically **Effective Search** To be able to find the information I need using a search engine. I know the consequences of not searching online safely	**Coding** To be able to explain an algorithm is a set of instructions to complete a task. To be able to design a simple program using 2Code that achieves a purpose. To be able to find and correct some errors in a program. To understand that my creations in 2Code, need similar skills to the adult world.	**Making Music** To be able to edit digital data such To be able to name, save and find my work. **Questioning (cont. Spr2)** To be able to organise data – for example, using a database such as 2Investigate. To be able to find data using specific searches – for example, using 2Investigate. To be able to use several programs to organise information	**Questioning – cont from Spr1** **Presenting Ideas** To be able to include photos, text and sound in their creations. To be able to use several programs to organise information	**Creating pictures** To be able to include photos, text and sound in their creations. To be able to name, save and find my work. To be able to share work safely	