Spark Island numeracy activities mapped to the new 2006 Framework

Age Group	Learning Strand	Description	Spark Island Activity
Foundation Stage	Use and apply mathematics	**Match** sets of objects to numerals that represent the number of objects	Down on the Farm 1,2,3,4
		Sort objects, making choices and justifying decisions	Down on the Farm 2 & 4 Busy Bill Hungry Croc Ladybird, ladybird Snap Spinner Wake up Wizard
		Talk about, recognise and recreate simple patterns	What comes next Seabed Sorting
		Describe solutions to practical problems, drawing on experience, talking about own ideas, methods and choices.	Myrtle's Maze
	Count, compare and order numbers, and describe relationships between them	**Know** that numbers identify how many objects are in a set **Count** reliably up to 10 everyday objects. **Estimate** how many objects they can see and check by counting **Match** then compare the number of objects in two sets **Recognise** numerals 1 – 9.	Down on the Farm 3 & 4
	Secure knowledge of number facts that can be recalled quickly and used and applied appropriately	**Observe** number relationships and patterns in the environment and use these to derive facts.	What comes next Seabed Sorting
	Position and transform shapes, recognise and use their properties to visualise and construct	**Use** familiar objects and common shapes to create and recreate patterns and build models.	What comes next Seabed Sorting
		Use everyday words to describe position.	Myrtle's Maze
		Talk about, recognise and recreate simple patterns	What comes next
	Process, present and interpret data to pose and answer questions	**Sort** familiar objects and count how many objects share a particular property, presenting results using pictures, drawings or numerals	Down on the Farm 3 & 4
Year 1	Use and apply mathematics	**Solve** problems involving counting, adding, subtracting, doubling or halving in the context of numbers, measures or money; recognise the value of coins	Sparklantis Shopping – Level 1
	Count, compare and order numbers, and describe relationships between them	**Count** reliably at least 20 objects, recognising that when rearranged the number of objects stays the same; relate addition to counting on and count on or back in ones, twos, fives and tens; estimate a number of objects that can be checked by counting	Seabed Counting Magic Maths
		Compare and order numbers, using the related vocabulary; use the equals (=) sign	More or Less
		Read and write numerals, numbers from 0 to at least 20 and the multiples of 10, and position these numbers on a number track and number line	Zap the Jellyfish Levels 1 & 2 Save the Seaweed
		Use the vocabulary of halves and quarters in context	It's a Wind Up Myrtle's Maze
	Secure knowledge of number facts that can be recalled quickly and used and applied appropriately	**Derive** and recall all pairs of numbers with a total of 10 and addition facts for totals to at least 5; work out the corresponding subtraction facts.	Find the Fish
	Calculate efficiently and accurately	**Recognise** that addition can be done in any order and use this to add mentally a one-digit number or a multiple of 10 to a one-digit or two-digit number.	Magic Maths
	Position and transform	**Visualise** and describe the position of objects and direction and distance when moving them	Myrtle's Maze

	shapes, recognise and use their properties to visualise and construct	and direction and distance when moving them, e.g. when placing or moving objects on a games board	
	Measure accurately using appropriate units, interpret and compare scales	**Use** vocabulary related to time; order days of the week and months; read the time to the hour and half hour.	Order the Days Order the Seasons It's a Wind Up
	Process, present and interpret data to pose and answer questions	**Use** diagrams to sort objects into groups according to a given criterion; suggest a different criterion for grouping the same objects	Wake up Wizard! What comes next? Seabed Sorting Ladybird, ladybird
Year 2	Use and apply mathematics	**Solve** problems involving addition, subtraction, multiplication or division in contexts of numbers, measures or pounds and pence	Steer the Sub (addition/subtraction/multiplication versions) Magic Measuring Sparklantis Shopping 2
		Follow a line of enquiry; answer questions by selecting and using suitable equipment and information, and organising and presenting the information in lists, tables and simple diagrams.	Mirror, mirror
		Describe patterns and relationships involving numbers or shapes, make predictions and test these with examples.	Mirror, mirror Sort the Shapes
	Count, compare and order numbers, and describe relationships between them	**Order** two-digit numbers and position them on a number line; use the greater than (>), less than (<) signs.	Save the Seaweed Zap the Jellyfish 3
		Find one half, one quarter and three quarters of shapes and sets of objects.	Fraction Bubbles
	Secure knowledge of number facts that can be recalled quickly and used and applied appropriately	**Derive** and recall all addition and subtraction facts for each number to at least 10, all pairs with totals to 20 and all pairs of multiples of 10 with totals up to 100	Find the Fish Steer the Sub (all versions) Cross the Quicksand Hubble Bubble
		Derive and recall multiplication facts for the 2, 5 and 10 times-tables and the related division facts; recognise multiples of 2, 5 and 10	Steer the Sub (all versions) Cross the Quicksand Hubble Bubble Sub Voyager
	Position and transform shapes, recognise and use their properties to visualise and construct	**Visualise** common 2-D shapes and 3-D solids and identify them from pictures of them in different positions and orientations; sort, make and describe shapes, referring to their properties.	Mirror, mirror Sort the Shapes
		Follow and give instructions involving position, direction and movement. **Recognise** and use whole, half and quarter turns, both clockwise and anti-clockwise; know that a right angle represents a quarter turn.	Shoot a Basket
	Measure accurately using appropriate units, interpret and compare scales	**Estimate**, compare and measure lengths, masses and capacities choosing and using standard units (m, cm, kg, litre) and suitable measuring instruments. **Read** the numbered divisions on a scale, and interpret the divisions between them, e.g. on a scale from 0 to 25 with intervals of 1 shown but only the divisions 0, 5, 10, 15 and 20 numbered; use a ruler to draw and measure lines to the nearest centimetre	Magic Measuring
		Use units of time (seconds, minutes, hours, days) and know the relationships between them; read the time to the quarter hour and identify time intervals, including those that cross the hour boundary.	It's a Wind Up What's the Time Time Trouble

	Process, present and interpret data to pose and answer questions	**Use** lists, tables and diagrams to sort objects against one or two criteria; explain choices using appropriate language, including *not*	Mirror, mirror Sort the Shapes
Year 3	Use and apply mathematics	**Solve** one- and two-step problems involving numbers, money or measures, including time, choosing and carrying out appropriate calculations. **Represent** the information in a problem using numbers and images; use these to find a solution and present it in context, where appropriate using £.p notation or units of measure.	Sparklantis Shopping 3
		Use patterns, properties of and relationships between numbers or shapes to identify similarities and differences, and to solve puzzles	Pen them in Mirror, mirror Hair Care Chaos
	Count, compare and order numbers, and describe relationships between them	**Read** and write proper fractions, e.g. $^{3}/_{7}$, $^{9}/_{10}$, interpreting the denominator as the parts of a whole and the numerator as the number of parts; identify fractions of shapes and use diagrams to compare fractions and establish equivalents.	Fraction Bubbles
	Secure knowledge of number facts that can be recalled quickly and used and applied appropriately	**Derive** and recall all addition and subtraction facts for each number to 20, sums and differences of multiples of 10 and number pairs that total 100	Steer the Sub (addition 1-20), (subtraction 1-20)
		Derive and recall multiplication facts for the 2, 3, 4, 5, 6 and 10 times-tables and the corresponding division facts	Hubble Bubble Cross the Quicksand Catch the numbers Steer the sub Sub Voyager Hair Care Chaos
	Calculate efficiently and accurately	**Add** or subtract mentally combinations of one-digit and two-digit numbers	Steer the Sub (addition 1-20), (subtraction 1-20)
		Find unit fractions of numbers and quantities, e.g. ½, ? , ¼ and $^{1}/_{6}$ of 12 litres	Fraction Bubbles
	Position and transform shapes, recognise and use their properties to visualise and construct	**Draw** and complete shapes with reflective symmetry and draw the reflection of a shape in a mirror line along one side.	Mirror, Mirror
		Read and record the vocabulary of position, direction and movement, using the four compass directions to describe movement about a grid.	Shoot a Basket 2
	Measure accurately using appropriate units, interpret and compare scales	**Know** the relationships between kilometres and metres, metres and centimetres, kilograms and grams, litres and millilitres; choose and use appropriate units to estimate, measure, and record measurements. **Read,** to the nearest division and half-division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy.	Magic Measuring 2
		Read the time on a 12-hour digital clock and to the nearest five minutes on an analogue clock; calculate time intervals and find start or end times for a given time interval.	It's a Wind up Time Trouble What's the Time
	Process, present and interpret data to pose and answer questions	**Use** Venn diagrams or Carroll diagrams to sort data and objects using more than one criterion	Pen them in Mirror, mirror Hair Care Chaos
Year 4	Secure knowledge of number facts that can be recalled quickly and used and applied appropriately	**Derive** and recall multiplication facts up to 10 × 10, the corresponding division facts and multiples of numbers to 10 up to the tenth multiple	Catch the numbers Steer the Sub Xybok racing Hubble Bubble (x3 and x4) Crack the Code Sandboarding

	Position and transform shapes, recognise and use their properties to visualise and construct	**Recognise** horizontal and vertical lines; use the eight compass points to describe direction; describe and identify the position of a square on a grid of squares. **Know** that angles are measured in degrees and that one whole turn is 360°; compare and order angles less than 180°	Shoot a basket 3
	Measure accurately using appropriate units, interpret and compare scales	**Use** standard metric units and their abbreviations when estimating, measuring and recording length, mass and capacity; know the meaning of kilo, centi and milli and, where appropriate, use decimal notation to record measurements, e.g. 1.3m or 0.6kg. **Interpret** intervals and divisions on partially numbered scales and record readings accurately, where appropriate to the nearest tenth of a unit.	Magic Measuring 3
	Process, present and interpret data to pose and answer questions	**Determine** the data needed to answer a specific question; organise, present, analyse and interpret the data in tables, diagrams, tally charts, pictograms and bar charts, using ICT where appropriate	On the Loose Pen them in
Year 5	Use and apply mathematics	**Plan** and pursue an enquiry; present evidence by collecting, organising and interpreting information; suggest extensions to the enquiry	On the Loose
	Count, compare and order numbers, and describe relationships between them	**Express** a smaller whole number as a fraction of a larger one; find equivalent fractions, including equivalent improper fractions and mixed numbers; relate fractions to their decimal representations. **Understand** percentage as the number of parts in every 100 and express tenths and hundredths as percentages	Fire the Fractions
	Secure knowledge of number facts that can be recalled quickly and used and applied appropriately	**Recall** quickly multiplication facts up to 10 × 10, use to multiply pairs of multiples of 10 and 100 and derive quickly corresponding division facts	Steer the Sub Crack the Code Sandboarding Xybok Racing On the Loose
	Position and transform shapes, recognise and use their properties to visualise and construct	**Estimate**, draw and measure acute and obtuse angles using an angle measurer or protractor to a suitable degree of accuracy; calculate angles in a straight line	Shoot a Basket 4
	Measure accurately using appropriate units, interpret and compare scales	**Read,** use and record standard metric units to estimate and measure length, mass and capacity; convert larger to smaller units using decimals to one place, e.g. change 2.6kg to 2600g.	Magic Measuring 4
	Process, present and interpret data to pose and answer questions	**Describe** the occurrence of familiar events using the language of chance or likelihood.	Play Your Cards Right
Year 6	Count, compare and order numbers, and describe relationships between them	**Use** decimal notation for tenths, hundredths and thousandths, partition and order numbers with up to three decimal places, and position them on the number line	Fire the Fractions
	Secure knowledge of number facts that can be recalled quickly and used and applied appropriately	**Use** knowledge of place value and multiplication facts to 10 × 10 to derive related multiplication and division facts involving decimal numbers, e.g. 0.8 × 7, 4.8 ÷ 6	On the Loose (6&7) Crack the Code (6,7,8,9) Sandboarding (6,7,8,9) Xybok Racing
		Recognise that prime numbers have only two factors and identify prime numbers less than 100; find the prime factors of two-digit whole numbers	Crack the Code (prime numbers)
	Position and transform shapes, recognise and use their properties to visualise and construct	**Use** a protractor to estimate, measure and draw angles, on their own and in shapes; calculate angles in a triangle or around a point.	Shoot a Basket 5
	Measure accurately using appropriate units, interpret and	**Measure** and calculate using imperials units still in everyday use; know their approximate equivalent metric values.	Magic Measuring 4

	compare scales		
	Process, present and interpret data to pose and answer questions	**Describe** and predict outcomes from data using the language of chance or likelihood.	Play Your Cards Right