Mathematics Syllabus – Year 1

1.1 NUMBER AND ALGEBRA

Learning Outcome	Notes
∗ Counting	
1.1.1 Say and use the number names in order in familiar contexts.	such as number rhymes, songs, stories, counting games and activities (first to five, then ten, then twenty and beyond).
• Recite the number names in order, continuing the count forwards or backwards from a given number.	
1.1.2 Count reliably up to 10 everyday objects. Recognise small numbers without counting.	(first to 5, then 10, then beyond), giving just one number name to each object.
• Begin to recognise 'none' and 'zero' in stories, rhymes and when counting.	
• Count reliably in other contexts.	such as clapping sounds or hopping movements.
• Count in tens.	
• Count in twos.	
• Estimate a number in the range that can be counted reliably, then check by counting.	Initially children might find estimation difficult. They tend to start counting straight away, or to give a number at random. This should not discourage teachers from helping and encouraging children to develop estimation skills. The children will eventually realise that they should think before giving an answer.
∗ Reading and writing numbers	
1.1.3 Recognise numerals 1 to 9, then 0 and 10, then beyond 10.	
• Begin to record numbers, initially by making marks, progressing to simple tallying and writing numerals.	
∗ Comparing and ordering numbers	
1.1.4 Use language such as more or less, greater or smaller, to compare two numbers and say which is more or less, and say a number which lies between two given numbers.	Do not use the symbols < and >. e.g. Say any number that lies between 3 and 10.

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1.1 NUMBER AND ALGEBRA (contd)

Learning Outcome	Notes
✱ **Comparing and ordering numbers** (contd)	
• Order a given set of numbers.	e.g. the set of numbers 1 to 6 given in random order.
• Order a given set of selected numbers.	e.g. the set 2, 5, 1, 8, 4.
• Begin to understand and use ordinal numbers in different contexts.	e.g. Using ordinal numbers to state the position of objects in a line: 1st, 2nd, 3rd, etc.
✱ **Adding and subtracting**	
1.1.5 **In practical activities and discussion: begin to use the vocabulary involved in adding and subtracting.**	
1.1.6 **Find one more or one less than a number from 1 to 9.**	
1.1.7 **Begin to relate addition to combining two groups of objects,** counting all the objects; extend to three groups of objects.	
• Begin to relate addition to counting on.	
• Begin to relate the addition of doubles to counting on.	
• Find a total by counting on when one group of objects is hidden.	
• Separate (partition) a given number of objects into two groups.	
• Select two groups of objects to make a given total.	
1.1.8 **Begin to relate subtraction to 'taking away'** and counting how many are left.	
• Remove a smaller number from a larger and find how many are left by counting back from the larger number.	Use the number line.
• Begin to find out how many have been removed from a larger group of objects by counting up from a number.	e.g. If I start with 7 and 5 are left over, I count up from 5 to 7 to find out that 2 have been removed. (Practical Activity).
• Work out by counting how many more are needed to make a larger number.	

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1.2 MEASURES, SHAPE AND SPACE

Learning Outcome	Notes
∗ **Comparing and ordering measures**	
1.2.1 **Use language such as more or less, longer or shorter, heavier or lighter … to compare two quantities,** then more than two, by making direct comparisons of length or masses, and by filling and emptying containers.	Focus only on practical work.
• Begin to understand and use the vocabulary of time.	day and night, day, week, minute, o'clock. N.B. Children can easily experience the duration of 1 minute, e.g. by clapping rhythmically and counting up to 60, or by using a minute egg timer.
• Sequence familiar events.	
• Begin to know the days of the week in order.	
• Begin to read o'clock time.	.
∗ **Exploring pattern, shape and space**	
1.2.2 **Use language such as circle or bigger to describe the shape and size of solids and flat shapes.**	
• Begin to name solids such as cube, cone, sphere … and flat shapes such as circle, triangle, square, rectangle, … Use a variety of shapes to make models, pictures and patterns, and describe them.	
• Put sets of objects in order of size.	
• Talk about, recognise and recreate patterns.	e.g. simple repeating or symmetrical patterns in the environment.
1.2.3 **Use everyday words to describe position,** direction and movement.	e.g. Follow and give instructions about positions, directions and movements in PE and other activities.

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1.3 DATA HANDLING

Learning Outcome	Notes

Not in Year One

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1.4 PROBLEM SOLVING

Learning Outcome	Notes
∗ Reasoning about numbers or shapes	
1.4.1 Talk about, recognise and recreate simple patterns.	e.g. simple repeating or symmetrical patterns from different cultures.
• Solve simple problems or puzzles in a practical context and respond to 'What could we try next?'	
• Make simple estimates and predictions.	e.g. the number of cubes that will fit in a box or strides across the room.
• Sort and match objects, pictures or children themselves, justifying the decisions made.	
∗ Problems involving 'real life' or money	
1.4.2 Use developing mathematical ideas and methods to solve practical problems involving counting and comparing in a real or role play context.	
Begin to understand and use the vocabulary related to money. Sort coins, including the €1 coin, and use them in role play to pay and give change.	

Opportunities should be sought to link mathematics to other subjects by using the Thematic Approach … this being *"the kind of pedagogical approach that comes closest to the idea of a holistic education, and the methodology* **(that)** *should be the dominant feature of our schools."* (NMC Creating the Future Together" p. 78) **Mathematics contributes to many subjects of the primary curriculum, such as** *Language, Science, Art & Craft, Social Studies* **and** *Physical Education,* **often in practical ways.**

Computer Software available in the classroom should be used to enhance, reinforce and consolidate any learning outcomes related to each of the four strands in this syllabus, namely: Number and Algebra; Measures, Shape and Space; Data Handling; Problem Solving.