

Maths Scheme – Junior Infants

Notes on this plan

This is a suggested Junior Infant yearly Maths scheme incorporating the *Ready, Set, Go – Maths* programme for the teaching of Number & Early Maths Activities (EMA) along with the other strands of the Irish Primary School Maths Curriculum. It is envisaged that on a weekly basis, 3 days are focussed on the teaching and learning of Number and Early Maths Activities whilst the remaining 2 days address another strand and strand unit. Where necessary and again, at the discretion of the teacher, this weekly 3 day/ 2 day approach may be altered depending on the needs of the pupils.

The suggested sequence for the teaching and learning of the other strands and strand units (referred to as ‘topic’ in the plan) is **only** a suggestion and should be modified accordingly at the teacher’s discretion. However, the sequence for Number and Early Maths Activities is in line with the *Ready, Set, Go – Maths* programme and it is recommended that these lines of development are adhered to. This is to ensure that pupils logically build on previous related concepts and do not acquire gaps in their number knowledge.

Linkage & Integration: The 3 day/2 day approach has been devised to ensure frequent exploration and revisiting of Number and Early Maths concepts and a more prolonged exposure to the other strands and strand units over a longer period of time. Traditionally, other strand units such as ‘capacity’ would have been addressed in one two-week block, not allowing time for any number work. By exploring ‘capacity’ 2 days/week but extended over a 3 or 4 week-period, it is envisaged that pupils will retain their conceptual understanding of this strand unit, whilst Number and EMA conceptual development is on-going. Teachers using this planning approach have found that pupils are more likely to make connections between their Number work and the other strand unit.

A section for Linkage & Integration has been included in the plan for teachers to identify opportunities for linkage between the maths strands and integration with other subjects.

Differentiation: *Ready, Set, Go – Maths* recommends that pupils are grouped and taught in similar-ability groupings based on assessment information. This may result in groups moving at different paces. This plan has broadly been designed to progress at the pace of the fastest-progressing group. It is important to note, therefore, that although the plan is laid out on a weekly basis, some groups may not yet be ready for the next week’s work and others may possibly be in

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advance of the week's work. Teachers should use their discretion to advance pupils' learning at a pace that is suitable for the individuals and groups in their class.

Whilst *Ready, Set, Go – Maths* advocates ability groups, teachers here, should use their professional judgement to decide on how best to structure groups to ensure progression in higher and lower order skills development for all pupils. It is very important that ability groupings are regularly reviewed and that pupils may move from one group to another based on the information garnered from assessments, including teacher observation and progress records.

To ensure a balanced approach, it is recommended that where practicable, the weekly non-number strand unit or 'topic' would be taught in mixed-ability settings.

Numeration: Whilst *Ready, Set, Go – Maths* emphasises the importance of pupils being able to recognise and order numerals, it does not over-emphasise developing the pupils' ability to formally write numerals. There is reference made to the importance of pre-writing numeral activities such as tracing numbers in sand and creating numerals with plasticene. Teachers should address formal writing of numbers in their own individual planning.

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September				
Week	Strand/Strand Unit objectives	Number - Ready, Set, Go	Counting and Recognition	Topic
1	EMA/ Classifying -Classify objects on the basis of one attribute, such as colour, shape, texture or size -Identify the complement of a set	Settling in week for Junior Infants. Free play with a variety of equipment. Assessment.		
2	EMA/Comparing Compare objects according to length, width, height, weight, quantity, thickness or size Number/Counting -Compare the number of objects in a set, 1 - 10	Sorting – Random collections	Count forwards to 5 with special focus on 1 - 3	Topic - 3D shapes See PDST Shape and Space Manual
3	Algebra/Extending Patterns - Identify, copy and extend patterns in colour, shape and size using a range of objects, e.g. cubes or threading beads	Sorting- Random collections	Count forwards to 5 with special focus on 1 - 3	Topic - 3D shapes See PDST Shape and Space Manual
4	Shape and Space -Sort , name, describe 2-D shapes: square, circle, triangle, rectangle Data/ Recognising & Interpreting Data - Sort and classify sets of objects by one criterion	Sorting- Random collections Relationships: Copy a Pattern	Count forwards to 5 with special focus on 1 - 3	Topic - 3Dshapes See PDST Shape and Space Manual
Assessment		Gather assessment information on current conceptual understanding of pupils – counting (including one-to-one correspondence), colours, shapes, sizes. Record in Progress Records.		
Differentiation		Form ability-groupings based on assessments		
Linkage & Integration				

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October				
Week	Strand/Strand Unit <i>Objectives</i>	Number- Ready, Set, Go	Counting and Recognition	Topic
1	EMA/Classifying -Classify objects on the basis of one attribute, such as colour, shape, texture or size EMA/ Matching - Match equivalent and non-equivalent sets using one-to-one correspondence	Sorting for one property - colour Relationships: Copy patterns based on colour Understanding Number: One-to-one correspondence	- Count forwards to 5 with special focus on 1 – 3 - Number after	Topic - 2D shapes See PDST Shape and Space Manual
2	Number/Counting -Compare the number of objects in a set, 1 - 10 Algebra/Extending Patterns - Identify, copy and extend patterns in colour, shape and size using a range of objects, e.g. cubes or threading beads	Sorting for one property - shape Relationships: Copy patterns based on shape Understanding Number: One-to-one correspondence	- Count forwards to 5 with special focus on 1 – 3 - Number after	Topic - 2D shapes See PDST Shape and Space Manual
3	Number/Comparing & Ordering - Compare equivalent and non-equivalent sets 1 – 5 by matching without using symbols Data/ Recognising & Interpreting Data - Sort and classify sets of objects by one criterion -Match sets, equal and unequal	Sorting for one property – size and thickness Relationships: Copy patterns based on size Understanding Number: One-to-one correspondence	-Count forwards to 5 -Number after -Count backwards from 5	Topic - 2D shapes See PDST Shape and Space Manual
4	Shape and Space -Sort, describe and name 3- D shapes, regular and irregular	Sorting for one property – colour, shape, size and thickness Relationships: Compare 2 sets involving ‘more’ without counting Understanding Number: Wide variety of sets of 1,2.	-Count forwards to 5 -Number after -Count backwards from 5	
Assessment		Record teacher observations in Progress Records		
Differentiation		Review ability and mixed ability class groupings in light of assessments		
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November				
Week	Strand/Strand Unit <i>Objectives</i>	Number- Ready, Set, Go	Counting and Recognition	Topic
1	EMA/Classifying <i>-Classify objects on the basis of one/two attributes.</i>	Mid- term break		
2	<i>-identify the complement of a set</i> EMA/ Matching <i>- Match equivalent and non-equivalent sets using one-to-one correspondence</i> Data/ Recognising & Interpreting Data	Sorting: Revisit random collections Relationships: Compare 2 sets involving 'more' without counting Understanding Number: Wide variety of sets of 1,2.	-Count forwards to 5 -Number after -Count backwards from 5 -Count forwards from different starting points	Topic - length
3	<i>- Sort and classify sets of objects by one criterion</i> <i>-Match sets, equal and unequal</i> Measures/Length <i>-Develop an understanding of the concept of length through exploration, discussion, and use of appropriate vocabulary</i>	Sorting: 2-property collections Relationships: Compare 2 sets involving 'more' without counting Understanding Number: Wide variety of sets of 1,2.	-Count forwards/backwards within 5, from different starting points -Number after - Recognise numerals to 5	Topic - length
4	<i>-Compare and order objects according to length or height</i> <i>-Compare and order objects</i> Algebra/Extending Patterns <i>- Identify, copy and extend patterns in colour, shape and size using a range of objects, e.g. cubes or threading beads</i>	Sorting: 2-property collections Relationships: Copy patterns with one and two elements Relationships: Compare 2 sets involving 'more' without counting Understanding Number: Wide variety of sets of 1,2.	-Count forwards/backwards within 5, from different starting points -Number after - Recognise numerals to 5	Topic - length
Assessment		Record teacher observations in Progress Records		
Differentiation		Review ability and mixed ability class groupings in light of assessments		
Linkage & Integration				

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December				
Week	Strand/Strand Unit <i>Objectives</i>	Number- Ready, Set, Go	Counting and Recognition	Topic
1	EMA/Classifying -Classify objects on the basis of one/two attributes. -identify the complement of a set EMA/ Matching - Match equivalent and non-equivalent sets using one-to-one correspondance Algebra/Extending Patterns - Identify, copy and extend patterns in colour, shape and size using a range of objects, e.g. cubes or threading beads	Sorting: 2-property collections Understanding Number: Wide variety of sets within 3 Relationships: Copy patterns with one and two elements Relationships: Compare 2 sets involving 'more' without counting	-Count forwards/backwards within 5, from different starting points -Number after - Recognise numerals to 5	Topic - Time
2	Data/ Recognising & Interpreting Data - Sort and classify sets of objects by one criterion -Match sets, equal and unequal Number/Counting -Count the number of objects in a set : 1 -10 Measures/Time	Sorting: 2-property collections Understanding Number: Wide variety of sets within 3 Relationships: Copy patterns with one and two elements Relationships: Compare 2 sets involving 'more' without counting	-Count forwards/backwards within 5, from different starting points -Number after - Recognise numerals to 5	Topic - Time
3	-Develop an understanding of the concept of time through the use of appropriate vocabulary -Sequence daily and weekly events or stages in a story	Sorting: 2-property collections Understanding Number: Wide variety of sets within 3 Relationships: Copy patterns with one and two elements Relationships: Compare 2 sets involving 'more' without counting	-Count forwards/backwards within 5, from different starting points -Number after - Recognise numerals to 5	Topic - Time
4		Christmas Holidays		
Assessment		Record teacher observations in Progress Records		
Differentiation		Review ability and mixed ability class groupings in light of assessments		
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January				
Week	Strand/Strand Unit <i>Objectives</i>	Number- Ready, Set, Go	Counting and Recognition	Topic
1	EMA/Classifying <i>-Classify objects on the basis of one/two/three attributes.</i>	Christmas Holidays		
2	<i>-identify the complement of a set</i> EMA/Matching <i>-Match equivalent and non-equivalent sets using one-to-one correspondence,</i> EMA/Comparing <i>Compare sets without counting</i> EMA/Ordering <i>Order sets without counting</i>	Sorting: 2-property collections Relationships: Continue a pattern Understanding Number: Wide variety of sets within 3	-Extend counting forwards to 10 -Number after -Recognise numerals to 5	Topic - Weight
3	Number/Counting <i>-Count the number of objects in a set : 1 -10</i> Data/ Recognising & Interpreting Data <i>- Sort and classify sets of objects by one criterion</i> <i>-Match sets, equal and unequal</i> Algebra/Extending Pattern <i>- Identify, copy and extend patterns in colour, shape and size and number (3-4 elements)</i>	Sorting: 3-property collections Relationships: Continue a pattern Relationships: Compare 2 sets involving 'the same' without counting Understanding Number: Order numerals and sets within 3	-Extend counting forwards to 10 -Number after -Recognise numerals to 5	Topic - Weight
4	Measures/Weight <i>-Develop an understanding of the concept of weight through exploration, handling of objects, and use of appropriate vocabulary</i> <i>-Compare objects according to weight, compare objects that differ in size, shape and weight by handling</i>	Sorting: 3-property collections Relationships: Continue a pattern Relationships: Compare 2 sets involving 'the same' without counting Understanding Number: Order numerals and sets within 3	-Extend counting forwards to 10 -Number after -Recognise numerals to 5	Topic - Weight
Assessment		Record teacher observations in Progress Records		
Differentiation		Review ability groupings in light of assessment		
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February				
Week	Strand/Strand Unit <i>Objectives</i>	Number- Ready, Set, Go	Counting and Recognition	Topic
1	EMA/Classifying -Classify objects on the basis of one/two/three attributes. -identify the complement of a set EMA/Matching -Match equivalent and non-equivalent sets using one-to-one correspondence, EMA/Comparing -Compare sets without counting EMA/Ordering	Sorting: 3-property collections Understanding Number: Order numerals and sets within 3 Relationships: Continue a pattern Relationships: Compare 2 sets involving 'the same' without counting	-Extend counting forwards to 10 -Number after -Number before -Recognise numerals to 5	Topic - Capacity
2	Order sets without counting Data/ Recognising & Interpreting Data - Sort and classify sets of objects by one criterion	Mid-term break		
3	-Match sets, equal and unequal Number/Counting -Count the number of objects in a set : 1 -10 Algebra/Extending Patterns - Identify, copy and extend patterns in colour, shape and size using a range of objects, e.g. cubes or threading beads	Sorting: 3-property collections Understanding Number: Order numerals and sets within 3 Relationships: Devise a pattern Relationships: Compare 2 sets involving 'the same' without counting	-Extend counting forwards to 10 -Number after -Number before -Recognise numerals to 5	Topic - Capacity
4	Measures/Capacity -Develop an understanding of the concept of capacity through exploration and the use of appropriate vocabulary -Compare containers according to capacity	Sorting: 3-property collections Understanding Number: Wide variety of sets within 5 Relationships: Devise a pattern Relationships: Compare 2 sets involving 'the same' without counting	-Extend counting forwards to 10 -Number after -Number before -Recognise numerals to 5	Topic - Capacity
Assessment		Record teacher observations in Progress Records		
Differentiation		Review ability and mixed ability class groupings in light of assessments		
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March				
Week	Strand/Strand Unit <i>Objectives</i>	Number- Ready, Set, Go	Counting and Recognition	Topic
1	Number/Comparing and Ordering -Order sets of objects by number 1-5 -Use the language of ordinal number: first, last second, third	Understanding Number: Wide variety of sets within 5 Relationships: Devise a pattern Relationships: Compare quantities involving 'more', 'less', 'the same' without and with counting	-Extend counting forwards to 10 -Number after -Number before -Recognise numerals to 5	Topic - Money
2	Number/Counting -Count the number of objects in a set : 1 -10 Data/ Recognising & Interpreting Data -Match sets, equal and unequal	Understanding Number: Wide variety of sets within 5 Relationships: Devise a pattern Relationships: Compare quantities involving 'more', 'less', 'the same' without and with counting	-Extend counting forwards to 10 -Number after -Number before -Recognise numerals to 5	Topic - Money
3	Measures/Money -Recognise and use coins (up to 5 cents), -Solve practical tasks and problems using money	Understanding Number: Wide variety of sets within 5. Understanding Number: Order numerals and sets within 5 Relationships: Devise a pattern Relationships: Compare quantities involving 'more', 'less', 'the same' without and with counting	-Extend counting forwards to 10 -Number after -Number before -Recognise numerals to 5	Topic - Money
4	Easter Holidays			
Assessment		Record teacher observations in Progress Records		
Differentiation		Review ability groupings in light of assessment		
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April				
Week	Strand/Strand Unit <i>Objectives</i>	Number- Ready, Set, Go	Counting and Recognition	Topic
1	Number/Analysis of Number: Numeration <i>Read, write and order numerals 1-5 ,</i> <i>-Subitise(tell at a glance)/estimate the number of objects in a set,1-5</i> <i>-Develop an understanding of the conservation of number, 1 – 5</i> <i>-Identify the empty set and the numeral zero</i>	Easter Holidays		
2	Partitioning <i>-Partition sets of objects, 1-5</i> Combining <i>-Combine sets of objects, totals to 5,</i> Number/Counting <i>-Count the number of objects in a set : 1 -10</i> Data/recognising and interpreting data <i>-Sort and classify sets of objects by one, two and three criteria</i>	Understanding Number: Wide variety of sets within 5. Understanding Number: Conservation of 5 Relationships/Operations: Partition sets of 5	-Extend counting forwards to 10 -Number after/before -Recognise numerals to 5 -Count backwards from different starting points	Topic - Data
3	Combining <i>-Combine sets of objects, totals to 5,</i> Number/Counting <i>-Count the number of objects in a set : 1 -10</i> Data/recognising and interpreting data <i>-Sort and classify sets of objects by one, two and three criteria</i>	Understanding Number: Conservation of 5 Relationships/Operations: Partition sets of 5 Relationships/Operations: Calculate mentally within 5. Games – Box Numbers/Make 5 (RSGM p.67)	-Extend counting forwards to 10 -Number after/before -Recognise numerals to 5 -Count backwards from different starting points	Topic - Data
4	Combining <i>-Match sets, equal and unequal</i> <i>-Represent and interpret a set of simple mathematical data using real objects, models and pictures</i>	Understanding Number: Conservation of 4 Relationships/Operations: Partition sets of 4 Relationships/Operations: Calculate mentally within 5 and 4 Games – Box Numbers/Make 5 (RSGM p.67)	-Extend counting forwards to 10 -Number after/before -Recognise numerals to 5 -Count backwards from different starting points	Topic - Data
Assessment		Test for conservation of 5. Test for conservation of 4 (See Readiness check RSGM p.62)		
Differentiation		Review ability groupings in light of assessment		
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May				
Week	Strand/Strand Unit <i>Objectives</i>	Number- Ready, Set, Go	Counting and Recognition	Topic
1	Number/ Numeration -Solve simple oral problems, 0-5, -Develop an understanding of the conservation of number -Identify the empty set and the numeral zero	Understanding Number: Conservation of 4 Relationships/Operations: Partition sets of 4 Relationships/Operations: Calculate mentally within 5 and 4 Games – Box Numbers/Make 5 (RSGM p.67)	-Extend counting forwards to 10 -Number after/before -Recognise numerals to 5 -Count backwards from different starting points	Spatial Awareness See PDST Shape & Space Manual
2	-Subitise//estimate the number of objects in a set, 1-5 Number/ Analysis of Number	Understanding Number: Conservation of 3, 2 Relationships/Operations: Partition sets of 3, 2 Relationships/Operations: Calculate mentally within 5, 4, 3, 2 Games – Box Numbers/Make 5 (RSGM p.67)	-Extend counting forwards to 10 -Number after/before -Recognise numerals to 5 -Count backwards from different starting points	Spatial Awareness See PDST Shape & Space Manual
3	Partitioning -Partition sets of objects, 1-5, Combining Combine sets of objects, totals to 5, Number/Counting -Count the number of objects in a set : 1 -10	Understanding Number: Conservation of 3, 2 Relationships/Operations: Add two numbers practically within 5 using base board (RSGM p. 74) Relationships/Operations: Calculate mentally within 5, 4, 3, 2 Games – Box Numbers/Make 5 (RSGM p.67) Relationships/Operations: Play and guided activities with Cuisenaire rods 1 – 5 (RSGM p. 88)	-Extend counting forwards to 10 -Number after/before -Recognise numerals to 5 -Count backwards from different starting points	Topic - Length - assess conservation of length prior to RSGM Cuisenaire activities Spatial Awareness See PDST Shape & Space Manual
4	Shape and Space: Spatial Awareness -Explore, discuss, develop and use the vocabulary of spatial relations position: over, under, up, down, on, beside, in directions: moving in straight/curved lines, in a circle, finding own space.	Relationships/Operations: Add two numbers practically within 5 using base board (RSGM p. 74) Relationships/Operations: Calculate mentally within 5, 4, 3, 2 Games – Box Numbers/Make 5 (RSGM p.67) Relationships/Operations: Play and guided activities with Cuisenaire rods 1 – 5 (RSGM p. 88)	-Extend counting forwards to 10 -Number after/before -Recognise numerals to 5 -Count backwards from different starting points	Topic - Length - assess conservation of length prior to RSGM Cuisenaire activities Spatial Awareness See PDST Shape & Space Manual
Assessment		Record teacher observations in Progress Records		
Differentiation		Review ability groupings in light of assessment		
Linkage & Integration				

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June				
Week	Strand/Strand Unit <i>Objectives</i>	Number- Ready, Set, Go	Counting and Recognition	Topic
1	- Revision of concepts identified by teacher Number/ Numeration -Solve simple oral problems, 0-5, -Develop an understanding of the conservation of number -Identify the empty set and the numeral zero	Relationships/Operations: Add two numbers practically within 5 using base board (RSGM p. 74) Relationships/Operations: Calculate mentally within 5, 4, 3, 2 Games – Box Numbers/Make 5 (RSGM p.67) Relationships/Operations: Play and guided activities with Cuisenaire rods 1 – 5 (RSGM p. 88) Relationships/Operations: Attribute values to Cuisenaire Rods 1 – 5 (RSGM p. 89)	-Extend counting forwards to 10 -Number after/before -Recognise numerals to 5 -Count backwards from different starting points	Topic - revision at teacher's discretion
2	-Subitise//estimate the number of objects in a set, 1-5 Number/ Analysis of Number Partitioning -Partition sets of objects, 1-5, Combining Combine sets of objects, totals to 5,	Relationships/Operations: Calculate mentally within 5, 4, 3, 2 Games – Box Numbers/Make 5 (RSGM p.67) Relationships/Operations: Play and guided activities with Cuisenaire rods 1 – 5 (RSGM p. 88) Relationships/Operations: Attribute values to Cuisenaire Rods 1 – 5 (RSGM p. 89)	-Extend counting forwards to 10 -Number after/before -Recognise numerals to 5 -Count backwards from different starting points	Topic - revision at teacher's discretion
3	Number/Counting -Count the number of objects in a set : 1 -10	Relationships/Operations: Calculate mentally within 5, 4, 3, 2 Games – Box Numbers/Make 5 (RSGM p.67) Relationships/Operations: Play and guided activities with Cuisenaire rods 1 – 5 (RSGM p. 88) Relationships/Operations: Attribute values to Cuisenaire Rods 1 – 5 (RSGM p. 89)	-Extend counting forwards to 10 -Number after/before -Recognise numerals to 5 -Count backwards from different starting points	Topic - revision at teacher's discretion
4		Revision	Revision	Revision
Assessment		Record teacher observations in Progress Records		
Differentiation		Review ability groupings in light of assessment		
Linkage & Integration				