## Mathletics

# Primary National Curriculum Alignment for Ireland 

Senior Infants
First Class
Second Class
Third Class
Fourth Class
Fifth Class
Sixth Class

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## Mathletics

## Senior Infants

| Expectation | Topic | Activity |
| :--- | :--- | :--- |
| Number |  | Count to 5 |
| Counting |  |  |
| SIN11Count the number of objects in a set, 0-20 |  |  |
| Comparing and ordering |  |  |
| SIN2.1Compare equivalent and non-equivalent sets 0-10 by |  |  |
| matching |  |  |
| SIN2.2 Order sets of objects by number, 0-10 |  |  |
| SIN2.3 Use the language of ordinal number: first, second, |  |  |
| third, last |  |  |
| Numeration |  |  |
| SIN5.1Develop an understanding of the conservation of number, | N - Counting |  |
| 0-10 |  | Not Display <br> SIN5.2 Read, write and order numerals, 0-10 |
| Ordering | Concept of Zero |  |

## National Curriculum for Ireland

SIN5.3 Identify the empty set and the numeral zero
SIN5.4 Estimate the number of objects in a set, 2-10
SIN5.5 Solve simple oral and pictorial problems, 0-10
SIN5.4 Estimate the number of objects in a set, 2-10
SIN5.5 Solve simple oral and pictorial problems, 0-10

## Combining

SIN3.1Explore the components of number, 1-10
SIN3.2 Combine sets of objects, totals to 10
Partitioning
SIN4.1Partition sets of objects, 0-10
SIN4.2 Use the symbols +and = to construct word sentences
involving addition

## Counting

 matching
SIN2.2 Order sets of objects by number, 0-10
SIN2.3 Use the language of ordinal number: first, second,
third, last
Numeration
SIN5.1 Develop an understanding of the conservation of number, 0-10
SIN5.2 Read, write and order numerals, 0-10

Dot Display
How Many?
Matching Numbers to 10
Make Numbers Count
Counting Up to 20
More, Less or the Same to 10

Before, After and Between to 20

## Algebra

## Extending patterns

SIA11Identify, copy and extend patterns in colour, shape, size and number (3-4 elements)
SIA12 Discover different arrays of the same number
SIA13 Recognise pattems and predict subsequent numbers

## Shape and Space

## Spatial awareness

SIS11Explore, discuss, develop and use the vocabulary of spatial relationships
3-D Shapes
SIS2.1Sort, describe and name 3-D shapes: cube, cuboid, sphere and cylinder
SIS2.2 Combine 3-D shapes to make other shapes
SIS2.3 Solve tasks and problems involving shape

## 2-D Shapes

SIS3.1Sort, describe and name 2-D shapes: square, circle, triangle, rectangle
SIS3.2 Combine and divide 2-D shapes to make larger or smaller shapes
SIS3.3 Solve problems involving shape and space
SIS3.4 Give simple moving and tuming directions

| Where is it? |
| :--- |
| Left or Right? |
| Following Directions |
| Collect the Shapes |
| Collect Simple Shapes |
| Match the Object |
| Match the Solid 1 |

## Mathletics

## Senior Infants

## Expectation <br> Topic <br> Activity

## Measures

Length
SIM11Develop an understanding of the concept of length through exploration, discussion, and use of appropriate vocabulary
SIM12 Compare and order objects according to length or height SIM13 Estimate and measure length in non-standard units SIM14 Select and use appropriate non-standard units to measure length, width or height. Discuss reasons for choice

## Weight

SIM2.1Develop an understanding of the concept of weight through exploration, handling of objects and use of appropriate vocabulary
SIM2.2 Compare and order objects according to weight
SIM2.3 Estimate and weigh in non-standard units
SIM2.4 Select and use appropriate non-standard units to weigh objects
Capacity
SIM3.1 Develop an understanding of the concept of capacity through exploration and the use of appropriate vocabulary SIM3.2 Compare and order containers according to capacity SIM3.3 Estimate and measure capacity in non-standard units SIM3.4 Select and use appropriate non-standard units to measure capacity

## Time

SIM4.1 Develop an understanding of the concept of time through the use of appropriate vocabulary
SIM4.2 Sequence daily and weekly events or stages in a story
SIM4.3 Read time in one-hour intervals
Money - euros
SIM5.1Recognise coins up to 20 cents and use coins up to 10 cents
SIM5.2 Solve practical tasks and problems using money

| M - Time and <br> Money | Days of the Week |
| :--- | :--- |
|  | Hour Times |
|  | Everyday Money |


| Which measuring tool? |
| :--- |
| Everyday Mass |
| Balancing Act |
| How Full? |
| Filling Fast! |

## Compare Length

Everyday Length
Measuring Length with Blocks
capacity

## Data

## Recognising and interpreting data

SID11Sort and classify sets of objects by one and two criteria SID12 Represent and interpret data in two rows or columns using real objects, models and pictures

Hot or Cold?
Same and Different
Sort It
Picture Graphs: More or Fewer
Who has the Goods?

| Expectation | TopiC |  |
| :--- | :--- | :--- |
|  |  |  |
|  |  | Mativity |
| Counting and numeration Numbers to 20 |  |  |
| 1N11Count the number of objects in a set |  |  |
| 1N12 Read, write and order numerals, 0-99 |  |  |
| 1N13 Estimate the number of objects in a set 0-20 |  | Reading Numbers to 30 |
|  |  | Counting Up to 20 |
|  |  | Counting Back Within 20 |

## Mathletics

| Expectation | Topic | Activity |
| :---: | :---: | :---: |
| Number |  |  |
| Fractions <br> 1N5.1Establish and identify half of sets to 20 | N - Grouping and Sharing | Is it half? |
|  |  | Dividing Twos |
|  |  | Doubles and Halves to 10 |
|  |  | Doubles and Halves to 20 |
| Algebra |  |  |
| Extending and using patterns <br> 1A11Recognise pattem, including odd and even numbers 1A12 Explore and use pattems in addition facts 1A13 Understand the use of a frame to show the presence of an unknown number | A - Patterns | Count by Twos |
|  |  | Count by Tens |
|  |  | Count by Fives |
|  |  | Count by $2 \mathrm{~s}, 5 \mathrm{~s}$ and 10 s |
|  |  | Counting on a 100 Grid |
|  |  | Odd or Even? |
|  |  | Odd or Even Numbers 1 |
|  |  | Missing It! |
| Shape and Space |  |  |
| Spatial awareness <br> 1S11Explore, discuss, develop and use the vocabulary of spatial relations <br> 1S12 Give and follow simple directions within classroom and school settings <br> 2-D shapes <br> 1S2.1Sort, describe, compare and name 2-D shapes: <br> square, rectangle, triangle, circle, semicircle <br> 1S2.2 Construct and draw 2-D shapes <br> 1S2.3 Combine and partition 2-D shapes <br> 1S2.4 Identify halves of 2-D shapes <br> 1S2.5 Identify and discuss the use of 2-D shapes in the environment | S-2D Shape and Space | Where is it? |
|  |  | Following Directions |
|  |  | Left or Right? |
|  |  | Collect the Shapes 1 |
|  |  | Count Sides and Corners |
|  |  |  |
| 3-D Shapes <br> 1S3.1Describe, compare and name 3-D shapes, including cube, cuboid, cylinder and sphere <br> 153.2 Discuss the use of 3-D shapes in the environment 153.3 Solve and complete practical tasks and problems involving 2-D and 3-D shapes 1S3.4 Explore the relationship between 2-D and 3-D shapes | S - 3D Shape | Collect the Objects |
|  |  | How many Comers? |
|  |  | How many Edges? |
|  |  | How many Faces? |
|  |  | Match the Solid 1 |
|  |  | Match the Solid 2 |
|  |  |  |



## Second Class

 National Curriculum for Ireland| Expectation | Activity |  |
| :--- | :--- | :--- |
| Number |  |  |

## Mathletics

## Second Class

 National Curriculum for Ireland
## Expectation <br> Topic <br> Activity

## Number

| Fractions 2N5.1 Establish and identify halves and quarters of sets to 20 | N-Fractions | Make Fair Shares |
| :---: | :---: | :---: |
|  |  | Is it half? |
|  |  | Doubles and Halves to 10 |
|  |  | Doubles and Halves to 20 |
|  |  | Dividing Twos |
| Algebra |  |  |
| Extending and using patterns 2A11Recognise pattems and predict subsequent numbers 2A12 Explore and use pattems in addition facts 2A13 Understand the use of a frame to show the presence of an unknown number | A - Patterns | Groups of Ten |
|  |  | Groups of Two |
|  |  | Groups of Five |
|  |  | Count by Twos |
|  |  | Count by Tens |
|  |  | Count by Fives |
|  |  | Count by 2 s , 5 s and 10s |
|  |  | Count Forward Patterns |
|  |  | Count Backward Pattems |
|  |  | Counting on a 100 Grid |

## Second Class

## Mathletics

 National Curriculum for Ireland
## Expectation

Topic
Activity

## Shape and Space

## Spatial awareness

2S11Explore, discuss, develop and use the vocabulary of spatial relations
2S12 Give and follow simple directions within classroom and school settings, including tuming directions using half and quarter tums
2-D Shapes
2S2.1Sort, describe, compare and name 2-D shapes: square, rectangle, triangle, circle, semicircle, oval
2S2.2 Construct and draw 2-D shapes
2S2.3 Combine and partition 2-D shapes
2S2.4 Identify half and quarter of shapes
2S2.5 Identify and discuss the use of 2-D shapes in the environment
3-D Shapes
2S3.1Describe, compare and name 3-D shapes, including cube, cuboid, cylinder, sphere and cone
2S3.2 Discuss the use of 3-D shapes in the environment 2S3.3 Solve and complete practical tasks and problems involving 2-D and 3-D shapes
2S3.4 Explore the relationship between 2-D and 3-D shapes Symmetry
2S4.1 Identify line symmetry in shapes and in the environment Angles
2S5.1Explore and recognise angles in the environment

| S-2-D Shape and Space | Where is it? |
| :---: | :---: |
|  | Following Directions |
|  | Left or Right? |
|  | Collect the Shapes 1 |
|  | Count Sides and Corners |
|  | Is it Half? |
|  | Halves and Quarters |
|  | Symmetry |
| S-3-D Shapes | Match the Object |
|  | How many Comers? |
|  | How many Edges? |
|  | How many Faces? |
|  | Relate Shapes and Solids |
|  | Comparing Volume |

## Mathletics

## Second Class

## National Curriculum for Ireland

| Expectation | Topic |  |
| :--- | :--- | :--- |
| Measures |  |  |
| Length <br> 2M11Estimate, compare, measure and record length using <br> non-standard units <br> 2M12 Select and use appropriate non-standard measuring <br> units/ instruments <br> 2M13 Estimate, measure and record length using metre and <br> centimetre <br> 2M14 Solve and complete practical tasks and problems <br> involving length | M - Length and Area | How Long Is That? |
| Area |  |  |
| 2M2.1Estimate and measure area using non-standard units |  |  |

## Mathletics

## Second Class

 National Curriculum for Ireland| Expectation | Topic | Activity |
| :--- | :--- | :--- |
| Data |  | Sorting Data |
| Representing and interpreting data <br> 2D11Sort and classify objects by two and three criteria <br> 2D12 Represent, read and interpret simple tables and charts <br> (pictograms) <br> 2D13 Represent, read and interpret simple block graphs | D - Data | More or Less? |

## Mathletics

## Expectation

Topic
Activity
Number

## Place value

3N11Explore and identify place value in whole numbers, 0999
3N12 Read, wite and order three-digit numbers
3N13 Round whole numbers to the nearest ten or hundred 3N14 Explore and identify place value in decimal numbers to one place of decimals

Operations - Addition and Subtraction
3N2.1Add and subtract, without and with renaming, within 999
3N2.2 Know and recall addition and subtraction facts
3N2.3 Solve word problems involving addition and subtraction

| N - Place Value | Place Value 1 |
| :---: | :---: |
|  | Place Value 2 |
|  | Compare Numbers to 100 |
|  | Which is Bigger? |
|  | Which is Smaller? |
|  | Repartition Two-Digit Numbers |
|  | Model Numbers |
|  | Partition and Rename 1 |
|  | Place Value Partitioning |
|  | Nearest 10? |
|  | Nearest 100? |
| N - Add and Subtract Written (1) | Columns that Add |
|  | Columns that Subtract |
|  | Add Two 2-Digit Numbers |
|  | Add Three 2-Digit Numbers |
|  | Subtract Numbers |
|  | 2-Digit Differences |
|  | Add 3-Digit Numbers |
|  | 3-Digit Differences |
|  | Column Addition |
|  | Column Subtraction |
| N - Add and Subtract Written (2) | Strategies for Column Addition |
|  | Add Two 2-Digit Numbers: Regroup |
|  | 2-Digit Differences: Regroup |
|  | Add Numbers: Regroup a Ten |
|  | Add 3-Digit Numbers: Regroup |
|  | Subtract Numbers: Regroup |
|  | Add Multi- Digit Numbers 1(UK) |
|  | Add Three 2-Digit Numbers: Regroup |
|  | Bar Model Problems 1 |
|  | I Am Thinking of a Number |
|  | Problems Add and Subtract |
| N - Add and Subtract Mental | Complements to $10,20,50$ |
|  | Complements to 50 and 100 |
|  | Missing Numbers |
|  | Estimate Sums |
|  | Estimate Differences |
|  | Pyramid Puzzles 1 |
|  | Magic Mental Addition |
|  | Magic Mental Subtraction |
|  | Commutative Property of Addition |
|  | Add 3 Nubmers: Bonds to Multiples |
|  | Add 3 Numbers: Bonds to 100 |
|  | Partition Puzzles 1 |


| Expectation | Topic |  |
| :--- | :--- | :--- |
| Number |  |  |
|  | Groups of Two |  |
|  | Groups of Five |  |
|  | Groups of Ten |  |
|  | Froups of Three |  |

## Expectation

Topic
Activity

## Number

## Fractions

3N3.1 Identify fractions and equivalent forms of fractions with denominators $2,4,8$ and 10
3N3.2 Compare and order fractions with appropriate denominators and position on the number line 3N3.3 Calculate a fraction of a set using concrete materials
3N3.4 Develop an understanding of the relationship between fractions and divisions
3N3.5 Calculate a unit fraction of a number and calculate a number, given a unit fraction of the number
3N3.6 Solve and complete practical tasks and problems involving fractions
Decimals
3N4.1 Identify tenths and express in decimal form
3N4.2 Order decimals on the number line
3N4.3 Solve problems involving decimals

## Algebra

Number patterns and sequences
3A11Explore, recognise and record patterns in number, 0999
3A12 Explore, extend and describe (explain rule for) sequences
3A13 Use patterns as an aid in the memorisation of number facts

## Number sentences

3A2.1Translate an addition or subtraction number sentence with a frame into a word problem (frame not in initial position)
3A2.2 Solve one-step number sentences

| Counting by Twos |
| :--- |
| Counting by Fives |
| Counting by Tens |
| Count Forward Patterns |
| Count Backward Pattems |
| Pick the Next Number |
| Describing Patterns |
| Skip Counting |
| Table of Values |
| Missing Values |
| Find the Missing Number 1 |

## Expectation

## Topic

Activity

## Shape and Space

2-D shapes
3S11Identify, describe and classify 2-D shapes: square,
rectangle, triangle, hexagon, circle, semicircle, oval and
irregular shapes
3S12 Explore, describe and compare the properties (sides,
angles, parallel and non-parallel lines) of 2-D shapes
3S13 Construct and draw 2-D shapes
3S14 Combine, tessellate and make patterns with 2-D
shapes
3S15 Identify the use of 2-D shapes in the environment
3S16 Solve and complete practical tasks and problems
involving 2-D shapes

| S-2-D Shapes | Collect the Shapes 1 |
| :--- | :--- |
|  | Collect the Polygons |
|  | Count Sides and Corners |
| Sides, Angles and Diagonals |  |

## 3-D Shapes

3S2.1Identify, describe and classify 3-D shapes, including cube, cuboid, cylinder, cone, sphere, triangular prism, pyramid
3S2.2 Explore, describe and compare the properties of 3-D shapes
3S2.3 Explore and describe the relationship of 3-D shapes with constituent 2-D shapes
3S2.4 Construct 3-D shapes
3S2.5 Solve and complete practical tasks and problems involving 2-D shapes and 3-D shapes

## Symmetry

3S3.1 Identify line symmetry in the environment
3S3.2 Identify and draw lines of symmetry in two-
dimensional shapes

## Lines and angles

3S4.1Identify, describe and classify vertical, horizontal and parallel lines
3S4.2 Recognise an angle in terms of a rotation
3S4.3 Classify angles as greater than, less than or equal to a right angle
3S4.4 Solve problems involving lines and angles

How Many Edges?
How Many Faces?
How Many Comers?
Faces, Edges and Vertices 1
Match the Solid 2
Collect the Objects
Relate Shapes and Solids

S-3-D Shapes


| Expectation | Topic | Activity |
| :---: | :---: | :---: |
| Measures |  |  |
| Length <br> 3M11Estimate, compare, measure and record lengths of a wide variety of objects using appropriate metric units ( m , cm) <br> 3M12 Rename units of length in m and cm <br> 3M13 Solve and complete practical tasks and problems involving the addition and subtraction of units of length ( m , cm) <br> Area <br> 3M2.1Estimate, compare and measure the area of regular and irregular shapes <br> Weight <br> 3M3.1Estimate, compare, measure and record the weight of a wide variety of objects using appropriate metric units (kg, g) <br> 3M3.2 Solve and complete practical tasks and problems involving the addition and subtraction of units of weight (kg, g) <br> Capacity <br> 3M4.1Estimate, compare, measure and record the capacity of a wide variety of objects using appropriate metric units (I, ml ) <br> 3M4.2 Solve and complete practical tasks and problems involving the addition and subtraction of units of capacity (I, ml ) | M - Measures | How Long is That? <br> Measure to the Nearest Half cm <br> Centimetres and Metres <br> Biggest Shape <br> Equal Areas <br> How Heav? <br> Using a Litre |
| Time <br> 3M5.1Consolidate and develop further a sense of time passing <br> 3M5.2 Read time in five-minute intervals on analogue and digital clock (12 hour) <br> 3M5.3 Record time in analogue and digital forms <br> 3M5.4 Read and interpret simple timetables <br> 3M5.5 Rename minutes as hours and hours as minutes <br> 3M5.6 Read dates from calendars and express weeks as <br> days and vice versa <br> 3M5.7 Solve and complete practical tasks and problems involving times and dates <br> Money - euro <br> 3M6.1Rename amounts of euro or cents and record using symbols and decimal point <br> 3M6.2 Solve and complete one-step problems and tasks involving the addition and subtraction of money | M - Time and Money | Five Minute Times Quarter to and Quarter Past <br> Time Conversions: Whole Numbers 1 <br> Using a Calendar <br> Money <br> How much Change? |

## Mathletics

| Expectation | Topic | Activity |
| :---: | :---: | :---: |
| Chance and Data |  |  |
| Representing and interpreting data <br> 3D11Collect, organise and represent data using pictograms, block graphs and bar charts <br> 3D12 Read and interpret tables, pictograms, block graphs and bar charts <br> 3D13 Use data sets to solve and complete practical tasks and problems <br> Chance <br> 3D2.1Use vocabulary of uncertainty and chance: possible, impossible, might, certain, not sure <br> 3D2.2 Order events in terms of likelihood of occurrence <br> 3D2.3 Identify and record outcomes of simple random processes | D - Chance and Data | Will it Happen? <br> What are the Chances? <br> Probability Scale <br> Possible Outcomes <br> Bar Graphs 1 <br> Reading from a Bar Chart <br> Interpreting Tables <br> Pictographs |

## Mathletics

## Fourth Class

 National Curriculum for Ireland
## Expectation

Topic
Activity

## Number

## Place value

4N11Explore and identify place value in whole numbers, 0-9999 4N12 Read, write and order four-digit numbers and solve simple problems
4N13 Round whole numbers to the nearest thousand 4N14 Explore and identify place value in decimal numbers to two places of decimals

Operations - Addition and Subtraction
4N2.1Add and subtract, without and with renaming, within 9999
4N2.2 Know and recall addition and subtraction facts
4N2.3 Solve word problems involving addition and subtraction

## Operations - Multiplication

4N2.4 Develop an understanding of multiplication as repeated addition and vice versa
4N2.5 Explore, understand and apply the zero, commutative, distributive and associative properties of multiplication
4N2.6 Develop and recall multiplication facts within 100
4N2.7 Multiply a two-digit or three-digit number by a one or twodigit number
4N2.8 Use a calculator to check estimates
4N2.9 Solve and complete practical tasks and problems involving multiplication of whole numbers

| Ascending Order |
| :--- |
| Descending Order |
| Place Value to Thousands |
| Partition and Rename 1 |
| Place Value Partitioning |
| Partition and Rename 2 |
| Place Value 3 |
| Nearest 100? |
| Nearest 1000? |
| Rounding Numbers |
| Decimal Place Value |
| Strategies for Column Addition |
| Add 3-Digit Numbers |
| Add 3-Digit Numbers: Regroup |
| 3-Digit Differences with Zeros |
| Add Three 3-Digit Numbers: Regroup |
| Adding Colossal Columns |
| Subtracting Colossal Columns |
| Bump Add and Subtract |
| Split Add and Subtract |
| I Am Thinking of a Number! |
| Partition Puzzles 2 |
| Problems: Add and Subtract 2 |
| Groups of Two |
| Groups of Five |
| Groups of Ten |
| Groups of Three |
| Groups of Four |
| Groups of Eight |
| Groups of Six |
| Groups of Seven |
| Groups of Nine |
| Times Tables |
| Groups of Two |
| Groups of Five |
| Groups of Ten |
| Groups of Three |
| Groups of Four |
| Groups of Eight |
| Groups of Six |
| Groups of Seven |
| Groups of Nine |
| Times Tables |

## Mathletics

## Fourth Class

## National Curriculum for Ireland

## Expectation

Topic
Activity

## Number

## Operations - Division

4N2.10 Develop an understanding of division as sharing and as repeated subtraction, without and with remainders
4N2.11Develop and/ or recall division facts within 100
4N2.12 Divide a three-digit number by a one-digit number without and with remainders
4N2.13 Use a calculator to check estimates
4N2.14 Solve and complete practical tasks and problems involving division of whole numbers

## Fractions

4N3.1 Identify fractions and equivalent forms of fractions with denominators $2,3,4,5,6,8,9,10$ and 12
4N3.2 Compare and order fractions with appropriate denominators and position on the number line
4N3.3 Calculate a fraction of a set using concrete materials
4N3.4 Calculate a number, given a multiple fraction of the number
4N3.5 Express one number as a fraction of another number
4N3.6 Solve and complete practical tasks and problems involving fractions

| N - Division Facts | Dividing Twos |
| :---: | :---: |
|  | Dividing Fives |
|  | Dividing Tens |
|  | Dividing Threes |
|  | Dividing Fours |
|  | Dividing Eights |
|  | Dividing Sixes |
|  | Dividing Nines |
|  | Dividing Sevens |
| N-Division | Divide Into Equal Parts |
|  | Make Fair Shares |
|  | Divide: 1-Digit Divisor 1 |
|  | Divide: 1-Digit Divisor 2 |
|  | Remainders by Arrays |
|  | Divide: 1-Digit Divisor, Remainder |
|  | Frog J ump Division |
|  | Bar Model Multiply Divide |
|  | Problems: Times and Divide |
| N-Fractions 1 | Shade Fractions |
|  | Thirds and Sixths |
|  | Model Fractions |
|  | Part-Whole Rods 1 |
|  | What Fraction Is Shaded? |
|  | Uneven Partitioned Shapes 2 |
|  | Identifying Fractions on a Number Line |
|  | Unit Fractions |
| N-Fractions 2 | Compare Fractions la |
|  | Compare Fractions 1 b |
|  | Comparing Fracitons 2 |
|  | Equivalent Fractions on a Number Line |
|  | Equivalent Fraction Wall 1 |
|  | Fractions of a Collection 1 |
|  | Fractions of a Collection 2 |
|  | Fraction Fruit Sets 1 |
|  | Make Fair Shares |
|  | Fraction Length Models 1 |

## Mathletics

## Fourth Class

 National Curriculum for Ireland
## Expectation

Topic
Activity

## Number

## Decimals

4N4.1Express tenths and hundredths as fractions and decimals 4N4.2 Identify place value of whole numbers and decimals in two places and write in expanded form
4N4.3 Order decimals on the number line
4N4.4 Add and subtract whole numbers and decimals up to two places
4N4.5 Multiply and divide a decimal number up to two places by a single-digit whole number
4N4.6 Solve problems involving decimals

## Decimal Place Value

Decimals on a Number Line
Decimals to Fractions 1
Decimals from Words to Digits 1
Adding Decimals
Subtracting Decimals
Add Decimals 1
Subtract Decimals 1
Decimal Complements
Decimal by Whole Number

## Algebra

## Number patterns and sequences

4A11 Explore, recognise and record patterns in number, 0-9999
4A12 Explore, extend and describe sequences
4A13 Use patterns as an aid in the memorisation of number facts Number sentences
4A2.1 Translate an addition, subtraction, multiplication or division number sentence with a frame into a word problem (frame not in initial position)
4A2.2 Translate a one-step word problem into a number sentence 4A2.3 Solve one-step number sentences

| A - Patterns | Counting by Twos |
| :--- | :--- |
|  | Counting by Fives |
|  |  |
|  |  |
|  | Count Backward Pattems |
| Skip Counting |  |
| Pick the Next Number |  |
| A - Algebra | Table of Values |
| Fit the Conditions 1 |  |
| Describing Patterns |  |
|  | I am Thinking of a Number! |
| Mass Word Problems |  |
|  | Problems: Addition and Subtraction |
|  | Missing Values |
|  | Find the Missing Number 1 |

## Expectation

Topic
Activity
Shape and Space

## 2-D shapes

4S11Identify, describe and classify 2-D shapes: equilateral, isosceles and scalene triangle, parallelogram, mombus, pentagon, octagon 4S12 Explore, describe and compare the properties (sides, angles, parallel and non-parallel lines) of 2-D shapes
4S13 Construct and draw 2-D shapes
4S14 Combine, tessellate and make patterns with 2-D shapes
4 S15 Identify the use of 2-D shapes in the environment
4S16 Solve and complete practical tasks and problems involving 2D shapes
3-D Shapes
4S2.1 Identify, describe and classify 3-D shapes, including cube, cuboid, cylinder, cone, sphere, triangular prism, pyramid
4S2.2 Establish and appreciate that when prisms are sliced through (in the same direction) each face is equal in shape and size
4S2.3 Explore and describe the relationship of 3-D shapes with constituent 2-D shapes
4S2.4 Construct 3-D shapes
4S2.5 Solve and complete practical tasks and problems involving 2D and 3-D shapes

## Symmetry

4S3.1 Identify line symmetry in the environment
4S3.2 Identify lines of symmetry as horizontal, vertical or diagonal
4S3.3 Use understanding of line symmetry to complete missing half of a shape, picture or pattem

## Lines and angles

4S4.1 Identify, describe and classify oblique and perpendicular lines 4S4.2 Draw, discuss and describe intersecting lines and their angles 4S4.3 Classify angles as greater than, less than or equal to a right angle
4S4.4 Solve problems involving lines and angles

| Topic | Activity |
| :--- | :--- |
|  | Shapes |
| Triangle Tasters |  |
|  | Sides, Angles and Diagonals |
|  | Symmetry |
|  | Symmetry or Not? |
|  |  |
| Collect the Objects 2 |  |
| Prisms and Pyramids |  |
| Count the Faces |  |
| Count the Edges |  |
| Count the Corners |  |
|  | Faces, Edges and Vertices 2 |
|  | Equal Angles |
| Comparing Angles |  |
| What Line Am I? |  |
|  | What Pair of Lines Am I? |
| Right Angle Relation |  |


| Expectation | Topic | Activity |
| :---: | :---: | :---: |
| Measures |  |  |
| Length <br> 4M11Estimate, compare, measure and record lengths of a wide variety of objects, using appropriate metric units, and selecting suitable instruments of measurement <br> 4M12 Rename units of length using decimal or fraction form 4M13 Understand, estimate and measure the perimeter of regular 2D shapes <br> 4M14 Solve and complete practical tasks and problems involving the addition, subtraction, multiplication and simple division of units of length ( $\mathrm{m}, \mathrm{cm}, \mathrm{km}$ ) <br> Area <br> 4M2.1Estimate, compare and measure the area of regular and irregular shapes <br> Weight <br> 4M3.1Estimate, compare, measure and record the weight of a wide variety of objects using appropriate metric units ( $\mathrm{kg}, \mathrm{g}$ ) and selecting suitable instruments of measurement <br> 4M3.2 Rename units of weight in kg and g <br> 4M3.3 Rename units of weight using decimal or fraction forms <br> 4M3.4 Solve and complete practical tasks and problems involving the addition, subtraction, multiplication and simple division of units of weight (kg and g) <br> Capacity <br> 4M4.1Estimate, compare, measure and record capacity using appropriate metric units $(\mathrm{l}, \mathrm{ml})$ and selecting suitable instruments of measurement <br> 4M4.2 Rename units of capacity in I and ml <br> 4M4.3 Rename units of capacity using decimal and fraction form <br> 4M4.4 Solve and complete practical tasks and problems involving the addition, subtraction, multiplication and simple division of units of capacity (l, ml) | M - Length, Perimeter and Area | Measure to the Nearest Half cm <br> Measuring Length <br> Centimetres and Millimetres <br> Metres and Kilometres <br> Kilometre Conversions <br> Converting Units of Length <br> Operations with Length <br> Perimeter of Shapes <br> Perimeter: Squares and Rectangles <br> Equal Areas <br> Area of Shapes |
|  | M - Weight and Capacity | Which Unit of Measurement? <br> Grams and Kilograms <br> Kilogram Conversions <br> Mass Addition <br> Millilitres and Litres <br> Litre Conversions <br> Capacity Addition |


| Expectation | Topic | Activity |
| :---: | :---: | :---: |
| Measures |  |  |
| Time <br> 4M5.1 Consolidate and develop further a sense of time passing <br> 4M5.2 Read time in one-minute intervals on analogue and digital clock (12 hour) <br> 4M5.3 Express digital time as analogue time and vice versa <br> 4M5.4 Read and interpret simple timetables <br> 4M5.5 Rename minutes as hours and hours as minutes <br> 4M5.6 Read dates from calendars and express weeks as days and vice versa <br> 4M5.7 Solve and complete practical tasks and problems involving times and dates and the addition and subtraction of hours and minutes <br> Money <br> 4M6.1Rename amounts of money as euro or cents and record using <br> $€$ symbol and decimal point <br> 4M6.2 Solve and complete practical one-step and two-step problems and tasks involving the addition, subtraction, multiplication and simple division of money | M - Time and Money | What is the Time? <br> Hours and Minutes <br> Time Conversions: Whole Numbers 2 <br> Time Conversions: Simple Fractions <br> Using a Calendar <br> Elapsed Time <br> How Much Change? <br> Money |
| Data |  |  |
| Representing and interpreting data <br> 4D11Collect, organise and represent data using pictograms, block graphs, bar charts and bar-line graphs incorporating the scales 1:2, <br> 1:5, 1:10, and 1:100 <br> 4D12 Read and interpret bar-line graphs and simple pie charts <br> 4D13 Use data sets to solve and complete practical tasks and problems <br> Chance <br> 4D2.1Use vocabulary of uncertainty and chance: chance, likely, <br> unlikely, never, definitely <br> 4D2.2 Order events in terms of likelihood of occurrence <br> 4D2.3 Identify and record outcomes of simple random processes | D - Chance and Data | What are the Chances? <br> Probability Scale <br> Possible Outcomes <br> Fair Games <br> Tallies <br> Pictogrpahs <br> Making Pictograms: With Scale <br> Reading from a Bar Chart <br> Bar Graphs 2 |

## Expectation

Topic

## Activity

## Number

| Place value <br> 5N11Read write and order whole numbers and decimals <br> 5N12 Identify place value in whole numbers and decimals <br> 5N13 Round whole numbers and round decimals | N - Place value |  |
| :--- | :--- | :--- |
|  |  | Place Value to Millions |
| Partition and Rename 3 |  |  |
| Place Value 3 |  |  |
| Decimals on a Number Line |  |  |
| Put in Order 1 |  |  |
| Decimal Place Value |  |  |
|  |  | Expanded Notation |
| Rounding Numbers |  |  |
| Rounding Decimals |  |  |
|  | Rounding Decimals 1 |  |
| Rounding Decimals 2 |  |  |

## Expectation

Topic

## Activity

## Number

|  |  | Model Fractions |
| :--- | :--- | :--- |
|  | Fraction Wall Labelling 2 |  |
|  | Fractions of a Collection |  |


| Expectation | Topic | Activity |
| :---: | :---: | :---: |
| Shape and Space |  |  |
| 2-D shapes <br> 5S11Make informal deductions about 2-D shapes and their properties <br> 5 S12 Use angle and line properties to classify and describe triangles and quadrilaterals <br> 5S13 Identify the properties of the circle <br> 5 S14 Construct a circle of given radius or diameter <br> 5S15 Tessellate combinations of 2-D shapes <br> 5 S16 Classify 2-D shapes according to their lines of symmetry <br> 5 S17 Use 2-D shapes and properties to solve problems <br> 3-D Shapes <br> 5S2.1 Identify and examine 3-D shapes and explore relationships, including tetrahedron (faces, edges and vertices) <br> 5S2.2 Draw the nets of simple 3-D shapes and construct the shapes | S - Shapes | Shapes |
|  |  | Triangle Tasters |
|  |  | Triangles: Acute, Right, Obtuse |
|  |  | Identify Parts of Circles 1 |
|  |  | What Prism Am I? |
|  |  | What Pyramid Am I? |
|  |  | Prisms and Pyramids |
|  |  | Collect the Objects 2 |
|  |  | Nets |
|  |  |  |
| Lines and angles <br> 5S3.1Recognise, classify and describe angles and relate angles to shape and the environment <br> 5S3.2 Recognise angles in terms of a rotation <br> 5S3.3 Estimate, measure and construct angles in degrees <br> 5S3.4 Explore the sum of the angles in a triangle | S -Lines and angles | What Type of Angle? |
|  |  | Classifying Angles |
|  |  | Labelling Angles |
|  |  | Measuring Angles |
|  |  | Angle Sum of a Triangle |
|  |  |  |

## Measures

## Length

5M11Select and use appropriate instruments of measurement
5M12 Estimate and measure length using appropriate metric units
5M13 Estimate and measure the perimeter of regular and irregular shapes

## Area

5M2.1Discover that the area of a rectangle is length by breadth
5M2.2 Estimate and measure the area of regular and irregular 2-D shapes
5M2.3 Calculate area using square centimetres and square metres
5M2.4 Compare visually square metres and square centimetres
Measuring LengthOperations with Length

Perimeter of Shapes
Perimeter Detectives 1
Area of Shapes
Area: Squares and Rectangles

M - Length, Perimeter and Area

| Expectation | Topic | Activity |
| :---: | :---: | :---: |
| Measures |  |  |
| Weight <br> 5M3.1Select and use appropriate instruments of measurement <br> 5M3.2 Estimate and measure weight using appropriate metric units <br> Capacity <br> 5M4.1Select and use appropriate instruments of measurement <br> 5M4.2 Estimate and measure capacity using appropriate metric units | M - Weight and Capacity | Which Unit of Measurement? <br> Kilogram Conversions <br> Converting Units of Mass <br> Mass Addition <br> Capacity Addition <br> Converting Volume |
| Time <br> 5M5.1Read and interpret timetables and the 24 -hour clock (digital and analogue) <br> 5M5.2 Interpret and convert between times in 12-hour and 24-hour format <br> Money - euro <br> 5M6.1Compare 'value for money' using unitary method | M - Time | What Is The Time? <br> 24 Hour Time <br> Elapsed Time <br> Using Timetables <br> What Time Will It Be? |
| Data |  |  |
| Representing and interpreting data <br> 5D11Collect, organise and represent data using pictograms, single and multiple bar charts and simple pie charts <br> 5D12 Read and interpret pictograms, single and multiple bar charts, and pie charts <br> 5D13 Compile and use simple data sets <br> 5D14 Explore and calculate averages of simple data sets <br> 5D15 Use data sets to solve problems <br> Chance <br> 5D2.1 Identify and list all possible outcomes of simple random processes <br> 5D2.2 Estimate the likelihood of occurrence of events <br> 5D2.3 Construct and use frequency charts and tables | D - Chance and Data | How Many Combinations? <br> Fair Games <br> Bar Graphs 2 <br> Line Graphs: Interpretation <br> Compound Bar Chart <br> Pie Charts <br> Tallies <br> Tally Charts <br> Finding the Average <br> Mean |


| Expectation | Topic |  |
| :--- | :--- | :--- |
| Number |  |  |

## Expectation

Topic
Activity

## Number

| Decimals and percentages <br> 6N4.1Use percentages and relate them to fractions and decimals <br> 6N4.2 Compare and order percentages of numbers 6N4.3 Solve problems relating to profit and loss, discount, VAT, interest, increases, decreases | N - Decimals and percentages | Modelling Percentages |
| :---: | :---: | :---: |
|  |  | Decimal to Percentage |
|  |  | Percentages to Decimals |
|  |  | Percentage to Fraction |
|  |  | Mixed Decimal, Percentage and Fraction Conversions |
|  |  | Percentage of a Quanity |
|  |  | Pencentage Change: Increase and Decrease |
|  |  | Simple Interest |
|  |  | Profit and Loss |
| Number theory <br> 6N5.1 Identify simple prime and composite numbers 6N5.2 Identify and explore square numbers 6N5.3 Explore and identify simple square roots 6N5.4 Identify common factors and multiples 6N5.5 Write whole numbers in exponential form | N - Number theory | Factors |
|  |  | Multiples |
|  |  | Prime or Composite? |
|  |  | Highest Common Factor |
|  |  | Lowest Common Factor |
|  |  | Square Roots |
| Algebra |  |  |
| Number theory <br> 6N5.1 Identify simple prime and composite numbers 6N5.2 Identify and explore square numbers 6N5.3 Explore and identify simple square roots 6N5.4 Identify common factors and multiples 6N5.5 Write whole numbers in exponential form | N - Number theory | Directed Numbers |
|  |  | Integers on a Number Line |
|  |  | Add Integers |
|  |  | Integers: Add and Subtract |
|  |  | Negative or Positive? |
|  | A- Rules and Patterns | Increasing Pattems |
|  |  | Decreasing Patterns |
|  |  | Describing Pattems |
|  |  | Pick the Next Number |
|  |  | Number Sequences up to 1Million |
|  |  | Order of Operations 1(BIDMAS) |
|  | A - Equations and Variables | Table of Values |
|  |  | Pattem Rules and Tables |
|  |  | Find the Pattem Rule |
|  |  | Missing Numbers |
|  |  | Missing Numbers: Variables |
|  |  | Word Problems with Letters |
|  |  | Find the Missing Number 2 |


| Expectation | Topic |  |
| :--- | :--- | :--- |
| Shape and Space |  | Activity |
| 2-D shapes |  |  |
| 6S11Make informal deductions about 2-D shapes and |  |  |
| their properties |  |  |
| 6S12 Use angle and line properties to classify and describe |  |  |
| triangles and quadrilaterals |  |  |
| 6A13 Construct triangles from given sides or angles |  |  |
| 6S14 Identify the properties of the circle |  |  |
| 6S15 Construct a circle of given radius or diameter |  |  |
| 6S16 Tessellate combinations of 2-D shapes |  |  |
| 6S17 Classify 2-D shapes according to their lines of |  |  |
| symmetry |  |  |
| 6S18 Plot simple co- ordinates and apply where |  |  |
| appropriate |  |  |
| 6S19 Use 2-D shapes and properties to solve problems |  |  |


| Expectation | Topic |  |
| :--- | :--- | :--- |
| Measures |  | Activity |
|  |  | Converting Units of Length |
| Length <br> 6M11Select and use appropriate instruments of <br> measurement <br> 6M12 Rename measures of length <br> 6M13 Estimate and measure the perimeter of regular and <br> iregular shapes <br> 6M14 Use and interpret scales on maps and plans | Centimetres and Millimetres | Perimeter |


| Expectation | Topic | Activity |
| :---: | :---: | :---: |
| Data |  |  |
| Representing and interpreting data 6D11Collect, organise and represent data using pie charts and trend graphs <br> 6D12 Read and interpret trend graphs and pie charts 6D13 Compile and use simple data sets 6D14 Explore and calculate averages of simple data sets 6D15 Use data sets to solve problems <br> Chance <br> 6D2.1 Identify and list all possible outcomes of simple random processes <br> 6D2.2 Estimate the likelihood of occurrence of events: order on a scale from 0 to $100 \%, 0$ to 1 <br> 6D2.3 Construct and use frequency charts and tables | D - Chance and Data | How Many Combinations? |
|  |  | Probability Scale |
|  |  | Frequency Histogram |
|  |  | Tally Charts |
|  |  | Compound Bar Chart |
|  |  | Line Graphs Interpretation |
|  |  | Line Graphs: Interpretation 2 |
|  |  | Pie Charts |
|  |  | Sector Graph Calculations |
|  |  | Finding the Average |
|  |  | Mean |
|  |  |  |

