

Maths Overview.

		Junior Infants
Strands	Strand Unit	Content/Learning Objectives
Early Mathematical Activities	Classifying	<ul style="list-style-type: none"> Classify objects on the basis of one attribute, such as colour, shape, texture or size. Identify the complement of a set.
	Matching	<ul style="list-style-type: none"> Match equivalent and non-equivalent sets using one-to-one correspondence.
	Comparing	<ul style="list-style-type: none"> Compare objects according to length, width, height, weight, quantity, thickness or size. Compare sets without counting.
	Ordering	<ul style="list-style-type: none"> Order objects according to length or height. Order sets without counting.
Number	Counting	<ul style="list-style-type: none"> Count numbers of objects in a set 1-10.
	Comparing and ordering	<ul style="list-style-type: none"> Compare equivalent and non equivalent sets 1-5 by matching without using symbols. Order sets of objects by number 1-5. Use the language of ordinal number: first, last.
	Analysis of number (Combining, Partitioning and Numeration)	<ul style="list-style-type: none"> Explore the components of number 1-5. Combine sets of objects, totals 5. Partition sets of objects 1-5. Develop an understanding of the conservation of number 1-5. Read, write and order numerals 1-5. Identify the empty set and the numeral zero. Tell at a glance the number of objects in a set, 1-5 Solve simple oral problems, 0-5.
Algebra	Extending Patterns (Integration)	<ul style="list-style-type: none"> Identify copy and extend patterns in colour, shape and size.
Shape and Space	Spatial Awareness	<ul style="list-style-type: none"> Explore, discuss, develop and use vocabulary of spatial relations.
	3-D shapes	<ul style="list-style-type: none"> Sort 3-D shapes, regular and irregular. Solve tasks and problems involving shape.
	2-D shapes (Integration)	<ul style="list-style-type: none"> Sort and name 2-D shapes: square, circle, triangle, rectangle. Use suitable structured materials to create pictures. Solve problems involving shape.
Measures	Length (Integration)	<ul style="list-style-type: none"> Develop and understanding of the concept of length through exploration, discussion and use of appropriate vocabulary. Compare and order objects according to length or height.
	Weight (Integration)	<ul style="list-style-type: none"> Develop and understanding of the concept of weight through exploration, handling of objects, and the use of appropriate vocabulary. Compare objects according to weight.
	Capacity	<ul style="list-style-type: none"> Develop and understanding of the concept of capacity through exploration and the use of appropriate vocabulary. Compare containers according to capacity.
	Time (Integration)	<ul style="list-style-type: none"> Develop an understanding of the concept of time through the use of appropriate vocabulary. Sequence daily events or stages in a story.
	Money	<ul style="list-style-type: none"> Recognise and use coins (up to 5 cents). Solve practical tasks and problems using money.
Data	Recognising and interpreting data	<ul style="list-style-type: none"> Sort and classify sets of objects by one criterion Match sets, equal and unequal Represent and interpret a set of simple mathematical data using real objects and pictures

Senior Infants

Strands	Strand Unit	Content/Learning Objectives
Early Mathematical Activity (Revision)	Classifying, Matching (Revision)	<ul style="list-style-type: none"> Classify objects on the basis of one attribute. Identify the common link of a set. e.g. colour or size Match equivalent and non-equivalent sets.
Number	Counting	<ul style="list-style-type: none"> Count the number of objects in a set, 0-20.
	Comparing and ordering	<ul style="list-style-type: none"> Compare equivalent and non-equivalent sets 0-10 by matching. Order sets of objects by number 0-10. Use the language of ordinal number: first, second, third, last.
	Analysis of number (Combining, Partitioning and Numeration)	<ul style="list-style-type: none"> Explore the components of number 1-10. Combine sets of objects, totals to 10. Partition sets of objects, 0-10. Use the symbols + and = to construct number sentences involving addition. Develop an understanding of the conservation of number 0-10. Read, write and order numbers 0-10. Identify the empty set and numeral zero. Estimate the number of objects in a set, 2-10. Solve simple oral and pictorial problems , 0-10.
Algebra	Extending Patterns (Integration)	<ul style="list-style-type: none"> Identify, copy and extend patterns in colour, shape, size and number (3-4 elements). Discover different arrays of the same number. $2 + 3 = \square$ or $\begin{array}{r} 2 \\ + 3 \end{array}$ Recognise patterns and predict subsequent numbers – find the missing numbers $2, 3, 4, \square, 6, 7$
Shape and space	Spatial Awareness	<ul style="list-style-type: none"> Explore, discuss, develop and use the vocabulary of spatial relations. E.g. over, under, up, down, on beside
	3-D shapes	<ul style="list-style-type: none"> Sort, describe and name 3-D shapes: cube, cuboid, sphere and cylinder. Combine 3-D shapes to make other shapes. Solve tasks and problems involving shape.
	2-D shapes (Integration)	<ul style="list-style-type: none"> Sort, describe and name 2-D shapes: square, circle, triangle, rectangle. Combine and divide 2-D shapes to make larger or smaller shapes. Solve problems involving shape and space.
Measures	Length (Integration)	<ul style="list-style-type: none"> Develop an understanding of the concept of length through exploration, discussion, and use of appropriate vocabulary. e.g. long/short, tall/short, wide/narrow, wider than, longer than. Compare and order objects according to length or height & width. Guess and measure length in non-standard units. e.g. cubes, pencils. Select and use appropriate non-standard units to measure length, width or height. Discuss reasons for choice.
	Weight (Integration)	<ul style="list-style-type: none"> Develop an understanding of the concept of weight through exploration, handling of objects and use of appropriate vocabulary. Compare and order objects according to weight. e.g. same as, lighter, heavier Estimate and weigh in non-standard units e.g. cups, spoons, egg-cup Select and use appropriate non-standard units to weigh objects.

Senior Infants

Strands	Strand Unit	Content/Learning Objectives
	Capacity	<ul style="list-style-type: none">• Develop an understanding of the concept of weight through exploration and the use of appropriate vocabulary. e.g. full, empty, holds more/less• Compare and order containers according to capacity.• Estimate and measure capacity in non-standard units.• Select and use appropriate non-standard units to measure capacity.
	Time (Integration)	<ul style="list-style-type: none">• Develop an understanding of the concept of time through the use of appropriate vocabulary.• Sequence daily and weekly events or stages in a story.• Read time in one-hour intervals.
	Money	<ul style="list-style-type: none">• Recognise coins up to 20cents and use coins up to 10 cents.• Solve practical tasks and problems using money.
Data	Recognising and interpreting data	<ul style="list-style-type: none">• Sort and classify sets of objects by one and two criteria.• Represent and interpret data in two rows or columns using real objects, models and pictures.

First Class

Strand	Strand Unit	Content/Learning Objectives
Number	Counting and numeration	<ul style="list-style-type: none"> Count the numbers of objects in a set. Read, write and order numerals 0-99. Estimate the number of objects in a set 0-20.
	Comparing and Ordering	<ul style="list-style-type: none"> Compare equivalent and non-equivalent sets 0-20. Order sets of objects by number. Use the language of ordinal number, first to tenth.
	Place Value (addition and subtraction)	<ul style="list-style-type: none"> Explore, identify and record place value 0=99.
	Operations	<ul style="list-style-type: none"> Addition: Develop an understanding of addition by combining or partitioning sets, use concrete materials 0-20. Explore, develop and apply the commutative, associative and zero properties of addition. Develop and/or recall mental strategies for addition facts within 20. Construct number sentences and number stories; solve problems involving addition within 20. Add number without and with renaming within 99. Explore and discuss repeated addition and group counting. Subtraction: Develop an understanding of subtraction as deducting, as complementing and as difference 0-20. Develop and/or recall mental strategies for subtraction 0-20. Construct number sentences and number stories; solve problems involving subtraction. Estimate differences within 99. Use the symbols +, -, = . Solve one-step problems involving addition and subtraction.
	Fractions (Linkage)	<ul style="list-style-type: none"> Establish and identify half of sets to 20
Algebra	Extending and using patterns	<ul style="list-style-type: none"> Recognise pattern, including odd and even numbers. Explore and use patterns in addition facts. Understand the use of a frame to show the presence of an unknown number.
Shape and Space	Spatial awareness	<ul style="list-style-type: none"> Explore, discuss, develop and use the vocabulary of spatial relations. Give and follow simple directions within classroom and school settings.
	2-D shapes (Linkage, integration)	<ul style="list-style-type: none"> Sort, describe, compare and name 2-D shapes: square, rectangle, triangle, circle, semicircle. Construct and draw 2-D shapes. Combine and partition 2-D shapes. Identify halves of 2-D shapes.
	3-D shapes (Linkage)	<ul style="list-style-type: none"> Describe, compare and name 3-D shapes, including cube, cuboid, cylinder and sphere. Discuss the use of 3-D shapes in the environment. Solve and complete practical tasks and problems involving 2-D and 3-D shapes. Explore the relationship between 2-D and 3-D shapes.
	Symmetry	
	Angles (Integration)	
	Area (Linkage)	
	Weight	<ul style="list-style-type: none"> Estimate, compare and record weight using non-standard units. Select and use appropriate non-standard measuring units and instruments. Estimate, measure and record weight using standard unit (the kilogram) and solve simple problems.
	Capacity	<ul style="list-style-type: none"> Estimate, compare, measure and record capacity using non-standard units. Select and use appropriate non-standard measuring units and instruments. Estimate, measure and record capacity using standard unit (the litre) and solve simple problems.

First Class

Strand	Strand Unit	Content/Learning Objectives
	Time	<ul style="list-style-type: none">• Use the vocabulary of time to sequence events.• Read and record time using simple devices.• Read time in hours and half-hours on 12-hour analogue clock.• Read day, date and month using a calendar.
	Money	<ul style="list-style-type: none">• Recognise, exchange and use coins up to the value of 50 cents.• Calculate how many items may be bought with a given sum.
Data	Representing and interpreting data (Integration).	<ul style="list-style-type: none">• Sort and classify objects by two and three criteria.• Represent and interpret data in two, three or four rows or columns using real objects, models and pictures.
Tables		<ul style="list-style-type: none">• Addition (1-10)• Subtraction (1-10)

Second Class

Strand	Strand Unit	Content/Activities
Number	Counting and numeration	<ul style="list-style-type: none"> Count the number of objects in a set/groups. Read, write and order numerals 0-199. Estimate the number of objects in set 0-20.
	Comparing and Ordering	<ul style="list-style-type: none"> Compare equivalent and non-equivalent sets 0-20. Use the language of ordinal number. - first to twentieth
	Place Value (addition and subtraction)	<ul style="list-style-type: none"> Explore, identify and record place value 0 – 199 (Hundreds, ten, units).
	Operations	<p><u>Addition:</u></p> <ul style="list-style-type: none"> Develop an understanding of addition by combining or partitioning sets. E.g. 3 cubes + 4 cubes = 7 Adding zero to numbers. Develop and recall mental strategies for addition facts within 20. Construct number sentences and number stories. Add numbers without and with carrying a bundle of 10 within 99. Explore and discuss repeated addition and group counting. <p><u>Subtraction.</u></p> <ul style="list-style-type: none"> Develop an understanding of subtraction as deduction, as complementing and as difference. Develop and recall mental strategies for subtraction 0-20. Construct number sentences involving subtraction of whole numbers; solve problems involving subtraction. Estimate differences within 99. Subtract numbers without and with borrowing bundle of 10 within 99. Use the symbols +, -, =, <, >. <p><u>Problem solving.</u></p> <ul style="list-style-type: none"> Solve problems involving addition/subtraction Use RUDE strategy when solving problems i.e. Read, Underline, Draw and Do, Evaluate. Solve problems involving subtraction e.g. What’s the difference between 65 and 35? Solve one-step and two-step problems involving addition and subtraction.
Shape and space	Spatial awareness	<ul style="list-style-type: none"> Explore, discuss, develop and use the vocabulary of spatial relations. E.g. before, beside, over, under Give and follow simple directions within classroom and school settings, including turning directions using half and quarter turns
	2-D shapes (Linkage, integration)	<ul style="list-style-type: none"> Sort, describe, compare and name 2-D shapes: square, rectangle, triangle, circle, semicircle, oval. Construct and draw 2-D shapes. Combine and partition 2-D shapes. Identify half and quarter of shapes. Identify and discuss the use of 2-D shapes in the environment.
	3-D shapes (Linkage)	<ul style="list-style-type: none"> Describe, compare and name 3-D shapes, including cube, cuboid, cylinder, sphere and cone. Discuss the use of 3-D shapes in the environment. Solve and complete practical tasks and problems. involving 2-D and 3-D shapes. Explore the relationship between 2-D and 3-D shapes.
	Symmetry	<ul style="list-style-type: none"> Identify line symmetry in shapes and in the environment.

Second Class

Strand	Strand Unit	Content/Activities
	Angles (Integration)	<ul style="list-style-type: none"> • Explore and recognise angles in the environment. • Identify a right angle
Measures	Length (Linkage)	<ul style="list-style-type: none"> • Estimate, compare, measure and record length using non-standard units. e.g. use lollipop sticks to measure a desk. • Estimate, measure and record length using metre and centimetre. • Solve and complete practical tasks and problems involving length.
	Area (Linkage)	<ul style="list-style-type: none"> • Estimate and measure area using non-standard units. e.g. use cubes, lollipop sticks to measure a book cover.
	Capacity	<ul style="list-style-type: none"> • Estimate, compare, measure and record the capacity of a wide variety of containers using non-standard units. e.g. teaspoons, egg-cups • Estimate, measure and record capacity using litre, half-litre and quarter-litre bottles and solve simple problems.
	Time	<ul style="list-style-type: none"> • Use the vocabulary of time to sequence events. e.g. before, after • Read and record time using simple devices. • Read time in hours, half-hours and quarter-hours on 12-hour analogue clock. • Read time in hour and half-hours on digital clock. • Read day, date and month using calendar and identify the season.
	Money	<ul style="list-style-type: none"> • Recognise, exchange and use coins up to the value of 2 euro. • Write the value of a group of coins; record money amount as cents and later as euro. E.g. 140c = €1.40
Data	Representing and interpreting data (Integration).	<ul style="list-style-type: none"> • Represent, read and interpret simple tables and charts (pictograms). • Represent, read and interpret simple block graphs.
Strand	Strand Unit	Content/Activities
Tables		<ul style="list-style-type: none"> • Addition (1-10) • Subtraction (1-10)

Third Class

Strand	Strand Unit	Content/Learning Objectives
Number	Place Value	<ul style="list-style-type: none"> • Explore and identify place value in whole numbers 0-999. • Read, write and order three-digit numbers. • Round whole numbers to the nearest ten e.g. 36 → 40 or hundred e.g. 143 → 100 • Explore and identify place value in decimal numbers to one place of decimals.
	Operations (Addition, subtraction, multiplication and division)	<p>Addition and Subtraction.</p> <ul style="list-style-type: none"> • Add and subtract, within 999. • Subtraction: Borrow Pay Back method to be used • Know and recall addition and subtraction facts. • Solve word problems involving addition and subtraction. <p>Multiplication.</p> <ul style="list-style-type: none"> • Develop an understanding of multiplication as repeated addition and vice versa. e.g. $2 \times 4 = 4 + 4$ • Explore, understand and apply the zero, commutative and distributive properties of multiplication. <ul style="list-style-type: none"> Zero: Any number $\times 0 = 0$ Commutative: $2 \times 5 = 5 \times 2$ Distributive: $2 \times (3+1) = (2 \times 3) + (2 \times 1)$ • Develop and/or recall multiplication facts within 100. • Multiply a one-digit or two-digit number 0-10. • Solve and complete practical tasks and problems involving multiplication of whole numbers. <p>Division.</p> <ul style="list-style-type: none"> • Develop an understanding of division as sharing and as repeated subtraction, without and with remainders. • Develop and/or recall division facts within 100. • Divide a one-digit or two-digit number by a one-digit number without and with remainders. • Solve and complete practical tasks and problems involving division of whole numbers.
	Fractions	<ul style="list-style-type: none"> • Identify fractions and equivalent forms of fractions with denominations 2, 4, 8 and 10. E.g. $\frac{1}{2} = \frac{2}{4} = \frac{4}{8} = \frac{5}{10}$ • Compare and order fractions with appropriate denominators and position on the number line. • Calculate a fraction of a set using concrete materials. e.g. cubes, sweets • Develop an understanding of the relationship between fractions and division. • Calculate a unit fraction of a number and calculate a number, given a unit fraction of the number. • Solve and complete practical tasks and problems involving fractions.
	Decimals	<ul style="list-style-type: none"> • Identify tenths and express in decimal form. e.g. $0.1 = \frac{1}{10}$ • Order decimals on the number line. • Solve problems involving decimals.
Shape and space	2-D shapes (Linkage and Integration)	<ul style="list-style-type: none"> • Identify, describe and classify 2-D shapes: square, rectangle, triangle, hexagon, circle, semicircle, oval and irregular shapes. • Explore, describe and compare the properties (sides, angles, parallel and non-parallel lines) of 2-D shapes. • Construct and draw 2-D shapes. • Combine, tessellate(join without gaps) and make patterns with 2-D shapes. • Identify the use of 2-D shapes in the environment. • Solve and complete practical tasks and problems involving 2-D shapes.

Third Class		
Strand	Strand Unit	Content/Learning Objectives
	3-D shapes (Integration)	<ul style="list-style-type: none"> • Identify, describe and classify 3-D shapes, including cube, cuboid, cylinder, cone, sphere, triangular prism, pyramid. • Explore, describe and compare the properties of 3-D shapes. e.g. corners, faces, edges • Explore the relationship of 3-D shapes with 2-D shapes. • Construct 3-D shapes. • Solve and complete practical tasks and problems involving 2-D and 3-D shapes.
	Symmetry (Linkage)	<ul style="list-style-type: none"> • Identify line symmetry in the environment. • Identify and draw lines of symmetry in two-dimensional shapes.
	Lines and angles (Integration)	<ul style="list-style-type: none"> • Identify, describe and classify vertical, horizontal and parallel lines. • Recognise an angle in terms of a rotation. • Classify angles as greater than, less than or equal to a right angle. • Solve problems involving lines and angles.
Measures	Length (Integration)	<ul style="list-style-type: none"> • Estimate, compare, measure and record length of a wide variety of objects using appropriate metric units (m, cm). • Rename units of length in m and cm. • Solve and complete practical tasks and problems involving the addition and subtraction of units of length (m, cm).
	Area (Linkage)	<ul style="list-style-type: none"> • Estimate, compare and measure the area of regular and irregular shapes.
	Time (Integration)	<ul style="list-style-type: none"> • Consolidate and develop further a sense of time passing. • Read time in five-minute intervals on analogue and digital clock (12-hour). • Record time in analogue and digital forms. • Read and interpret simple timetables. • Rename minutes as hours and hours as minutes. • Read dates from calendars and express weeks as days and vice versa. • Solve and complete practical tasks and problems involving times and dates.
	Money (Integration)	<ul style="list-style-type: none"> • Rename amounts of euro or cents and record using symbols and decimal point. • Solve and complete one-step problems and tasks involving the addition and subtraction of money.
Data	Representing and interpreting data (Linkage and Integration)	<ul style="list-style-type: none"> • Collect, organise and represent data using pictograms, block graphs and bar charts. • Read and interpret tables, pictograms, block graphs and bar charts. • Use data sets to solve and complete practical tasks and problems.
	Chance (Integration)	<ul style="list-style-type: none"> • Use vocabulary of uncertainty and chance: possible, impossible, might, certain, not sure. • Order events in terms of likelihood of occurrence • Identify and record outcomes of simple random processes.
Tables		<ul style="list-style-type: none"> • Addition • Subtraction • Multiplication • Division

Fourth Class

Strand	Strand Unit	Content/Learning Objectives
Number	Place Value	<ul style="list-style-type: none"> • Explore and identify place value in whole numbers 0-9999. • Read, write and order four-digit numbers and solve simple problems. • Round whole numbers to the nearest thousand. • Explore and identify place value in decimal numbers to two places of decimals.
	Operations (Addition, subtraction, multiplication and division)	<ul style="list-style-type: none"> • Add (use carrying method) and subtract (use borrow and pay back method) within 9999 • Know and recall addition and subtraction facts. • Solve word problems involving addition and subtraction. • Develop an understanding of multiplication as repeated addition and vice versa. $3 \times 4 = 4 + 4 + 4$ • Explore, understand and apply the zero, commutative and distributive properties of multiplication. Zero: Any number $\times 0 = 0$ Commutative: $2 \times 5 = 5 \times 2$ Distributive: $2 \times (3+1) = (2 \times 3) + (2 \times 1)$ • Develop and/or recall multiplication facts within 100. • Multiply a two-digit or three digit number by a one or two-digit number. • Use a calculator to check estimates. • Solve and complete practical tasks and problems involving multiplication of whole numbers • Develop an understanding of division as sharing and as repeated subtraction, without and with remainders. $6 \div 2 = 3$ 6 -2 -2 -2 • Develop and/or recall division facts within 100. • Divide a three-digit number by a one-digit number without and with remainders. • Use a calculator to check estimates. • Solve and complete practical tasks and problems involving division of whole numbers.
	Fractions	<ul style="list-style-type: none"> • Identify fractions and equivalent forms of fractions with denominations 2, 3, 4, 5, 8, 9, 10 and 12. E.g. $\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$ • Compare and order fractions with appropriate denominators and position on the number line. • Calculate a fraction of a set using concrete materials. • Calculate a number, given a multiple fraction of the number. • Express one number as a fraction of another number. • Solve and complete practical tasks and problems involving fractions.
	Decimals	<ul style="list-style-type: none"> • Express tenths and hundredths as fractions and decimals. E.g. $\frac{3}{10}$ or $\frac{30}{100}$ or $.3$ • Identify place value of whole numbers and decimals to two places and write in expanded form. $2.63 = 2 + 0.6 + 0.03$ • Order decimals on the number line. • Add and subtract whole numbers and decimals up to two places. • Multiply and divide a decimal number up to two places by a single-digit whole number. • Solve problems involving decimals.
Algebra	Number patterns and sequences	<ul style="list-style-type: none"> • Explore, recognise and record patterns in number, 0-9999. • Explore, extend and describe sequences. • Use patterns as an aid in the memorisation of number facts.
	Number sentences	<ul style="list-style-type: none"> • Translate an addition, subtraction, multiplication or division number sentence with a frame into a word problem (frame not in initial position). • Translate a one-step word problem into a number sentence. • Solve one-step number sentences.

Fourth Class

Strand	Strand Unit	Content/Learning Objectives
	2-D shapes (Linkage and Integration)	<ul style="list-style-type: none"> • Identify, describe and classify 2-D shapes: equilateral, isosceles and scalene triangle, parallelogram, rhombus, pentagon, octagon. • Explore, describe and compare the properties (sides, angles, parallel and non-parallel lines) of 2-D shapes. • Construct and draw 2-D shapes. • Combine, tessellate (join or draw together) and make patterns with 2-D shapes. • Identify the use of 2-D shapes in the environment. • Solve and complete practical tasks and problems involving 2-D shapes.
	3-D shapes (Integration)	<ul style="list-style-type: none"> • Identify, describe and classify 3-D shapes, including cube, cuboid, cylinder, cone, sphere, triangular prism, pyramid. • Establish and appreciate that when prisms are sliced through (in the same direction) each face is equal in shape and size. • Explore and describe the relationship of 3-D shapes with constituent 2-D shapes. • Construct 3-D shapes. • Solve and complete practical tasks and problems involving 2-D and 3-D shapes.
	Symmetry (Linkage)	<ul style="list-style-type: none"> • Identify line symmetry in the environment. • Identify lines of symmetry as horizontal, vertical or diagonal. • Use understanding of line symmetry to complete missing half of a shape, picture or pattern.
	Lines and angles (Integration)	<ul style="list-style-type: none"> • Identify, describe and classify diagonal and perpendicular lines. • Draw, discuss and describe intersecting lines and their angles. • Classify angles as greater than, less than or equal to a right angle. • Solve problems involving lines and angles.
	Weight	<ul style="list-style-type: none"> • Estimate, compare, measure and record the weight of a wide variety of objects using appropriate metric units (kg, g) and selecting suitable instruments of measurement. • Rename units of weight in kg and g. • Rename units of weight using decimal or fraction form. • Solve and complete practical tasks and problems involving the addition, subtraction, multiplication and simple division of units of weight (kg and g).
	Capacity	<ul style="list-style-type: none"> • Estimate, compare, measure and record capacity using appropriate metric (l, ml) and selecting suitable instruments of measurement. • Rename units of capacity in l and ml • Rename units of capacity using decimal and fraction form. • Solve and complete practical tasks and problems involving the addition, subtraction, multiplication and simple division of units of capacity (l, ml).
	Time (Integration)	<ul style="list-style-type: none"> • Consolidate and develop further a sense of time. • Read time in one-minute intervals on analogue and digital clock (12-hour). • Express digital time as analogue time and vice versa. • Read and interpret simple timetables. • Rename minutes as hours and hours as minutes. • Read dates from calendars and express weeks as days and vice versa. • Solve and complete practical tasks and problems involving times and dates and the addition and subtraction of hour and minutes.
	Money (Integration)	<ul style="list-style-type: none"> • Rename amounts of money as euro or cents and record using euro symbol and decimal point. • Solve and complete practical one-step and two-step problems and tasks involving the addition, subtraction, multiplication and simple division of money.
		<ul style="list-style-type: none"> • Addition • Subtraction • Multiplication • Division

Fifth Class

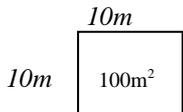
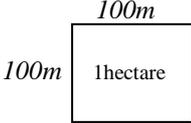
Strand	Strand Unit	Content/Learning Objectives
Number	Place Value	<ul style="list-style-type: none"> • Read, write and order whole numbers and decimals. • Identify place value in whole numbers and decimals. • Round whole numbers and round decimals up and down. e.g. $1.88 = 1.9$ and $1.21 = 1.2$
	Operations	<ul style="list-style-type: none"> • Estimate sums, differences, products and quotients of whole numbers. • Add and subtract whole numbers and decimals (to three decimal places) without and with a calculator. • Multiply a decimal (up to three places) by a whole number, without and with a calculator. • Divide a three-digit number by a two-digit number, without and with a calculator. $234 \div 23$ • Divide a decimal number by a whole number, without and with a calculator.
	Fractions	<ul style="list-style-type: none"> • Compare and order fractions and identify equivalent forms of fractions with denominators 2-12. (increasing and decreasing) e.g. $\frac{1}{2} = \frac{2}{4}$ • Express improper fractions as mixed numbers and vice versa and position them on the number line. • Add and subtract simple fractions and simple mixed numbers. • Multiply a fraction by a whole number. • Express tenths, hundredths and thousandths in both fractional and decimal form. e.g. $\frac{1}{10} = 0.1$, $\frac{1}{100} = 0.01$ etc
	Decimals and percentages (Linkage and Integration)	<ul style="list-style-type: none"> • Develop an understanding of simple percentages and relate them to fractions and decimals. $50\% = \frac{1}{2} = 0.5$ • Compare and order fractions and decimals. • Solve problems involving operations with whole numbers, fractions, decimals and simple percentages.
	Number theory	<ul style="list-style-type: none"> • Identify simple prime and composite numbers. Prime (can only be divided by itself or one) e.g. 2, 3, 5, 7, 11 Composite (has more than two factors) e.g. 4, 6, 8, 9 • Identify square (number multiplied by itself e.g. 4, 9, 16, 25) and rectangular numbers. • Identify factors and multiples. (division and multiplication tables)
Algebra	Directed numbers (Integration)	<ul style="list-style-type: none"> • Identify positive and negative numbers in context. e.g. weather
	Rules and properties	<ul style="list-style-type: none"> • Explore and discuss simple properties and rules about brackets and priority of operation. • Identify relationships and record verbal and simple symbolic rules and number patterns.
	Variables	
	Equations	<ul style="list-style-type: none"> • Translate number sentences with a frame into word problems and vice versa – make story out of the sum. • Solve one-step number sentences and equations. e.g. $3 + \square = 7$
Shape and space	2-D shapes	<ul style="list-style-type: none"> • Make informal deductions about 2-D shapes and their properties. A triangle has 3 sides etc. • Use angle and line properties to classify and describe triangles and quadrilaterals (3 equal sides) e.g. an equilateral triangle has 3 equal sides • Identify the properties of the circle. Radius = $\frac{1}{2}$ diameter • Construct a circle of given radius or diameter. • Tessellate (join or draw together) combinations of 2-D shapes. • Classify 2-D shapes according to their lines of symmetry. • Use 2-D shapes and properties to solve problems.
	3-D shapes (Integration)	<ul style="list-style-type: none"> • Identify and examine 3-D shapes and explore relationships, including tetrahedron (faces, edges and vertices). • Draw the nets (flattened out shapes) of simple 3-D shapes and construct the shapes.
	Lines and angles	<ul style="list-style-type: none"> • Recognise, classify and describe angles and relate angles to shape and the environment. • Recognise angles in terms of a rotation. • Estimate, measure and construct angles in degrees. • Explore the sum of the angles in a triangle. (180°).

Fifth Class

Strand	Strand Unit	Content/Learning Objectives
Measures	Length (Integration)	<ul style="list-style-type: none"> • Select and use appropriate instruments of measurement. • Estimate and measure length using appropriate metric units. • Estimate and measure the perimeter of regular and irregular shapes.
	Area	<ul style="list-style-type: none"> • Discover that the area of a rectangle is length by breadth. • Estimate and measure the area of regular and irregular 2-D shapes. • Calculate area using square centimetres and square metres. • Compare visually square metres and square centimetres.
	Weight	<ul style="list-style-type: none"> • Select and use appropriate instruments of measurement. • Estimate and measure weight using appropriate metric units.
	Capacity	<ul style="list-style-type: none"> • Select and use appropriate instruments of measurement. • Estimate and measure capacity using appropriate metric units.
	Time (Linkage and Integration)	<ul style="list-style-type: none"> • Read and interpret timetables and the 24-hour clock (digital and analogue). • Interpret and convert between times in 12-hour and 24-hour format.
	Money (Linkage)	<ul style="list-style-type: none"> • Compare 'value for money' using unitary method. e.g. 6 packs of sweets, find the price of 1 and compare
Data	Representing and interpreting data (Linkage and Integration)	<ul style="list-style-type: none"> • Collect, organise and represent data using pictograms, single and multiple bar charts and simple pie charts • Read and interpret pictograms, single and multiple bar charts, and pie charts • Compile and use simple data sets • Explore and calculate averages of simple data sets • Use data sets to solve problems – bar charts.
	Chance (Integration)	<ul style="list-style-type: none"> • Identify and list all possible outcomes of simple random processes e.g. throwing two dice • Estimate the likelihood of occurrence of events • Construct and use frequency charts and tables
Tables		<ul style="list-style-type: none"> • Addition • Subtraction • Multiplication • Division

Sixth Class

Strand	Strand Unit	Content/Learning Objectives
Number	Place Value	<ul style="list-style-type: none"> • Read, write and order whole numbers and decimals. • Identify place value in whole numbers and decimals. • Round decimals up and down e.g. $1.88 = 1.9$ and $1.21 = 1.2$
	Operations	<ul style="list-style-type: none"> • Estimate sums, differences, products and quotients of decimals. (i.e. addition, subtraction, multiplication and division) • Add and subtract whole numbers and decimals (to three decimal places) without and with a calculator. • Multiply a decimal by a decimal, without and with a calculator. • Divide a four-digit number by a two-digit number without and with a calculator. e.g. $3247 \div 23$ • Divide a decimal number by a decimal, without and with a calculator.
	Fractions	<ul style="list-style-type: none"> • Compare and order fractions (increasing and decreasing) $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$ and identify equivalent forms of fractions. (Express improper (top half bigger than bottom $\frac{5}{4}$) fractions as mixed numbers • vice versa and position them on the number line. $\frac{5}{4} = 1\frac{1}{4}$ Add and subtract simple fractions and simple mixed numbers. • Multiply a fraction by a fraction. • Express tenths, hundredths and thousandths in both fractional and decimal form. • Divide a whole number by a unit fraction. $2 \div \frac{1}{4}$ • Understand and use simple ratios. $2:3$, $\frac{2}{5} : \frac{3}{5}$
	Decimals and percentages (Linkage and Integration)	<ul style="list-style-type: none"> • Use percentages and relate them to fractions and decimals. • Compare and order percentages of numbers. $50\% = \frac{50}{100} = 0.5 = \frac{1}{2}$ • Solve problems relating to profit and loss, discount, VAT, interest, increases, decreases.
	Number theory	<ul style="list-style-type: none"> • Identify simple prime and composite numbers. (even nos & nos that can be divided by other nos) • Identify and explore square numbers. (a number multiplied by its self) e.g. $4 = 2 \times 2$, $9 = 3 \times 3$ • Explore and identify simple square roots. e.g. $\sqrt{9} = 3$ • Identify common factors and multiples. (multiplication and division tables) • Write whole numbers in exponential form. e.g. what is 4 cubed? $4 \times 4 \times 4 = 4^3$ <p>Prime – a number that can only be divided by itself and 1 e.g. 2, 3, 4, 5, 7, 11, 13</p>
	Variables	<ul style="list-style-type: none"> • Explore the concept of a variable in the context of simple patterns, tables and simple formulae and substitute values for variables. E.g. $3 + X = 10$, $X = 10 - 3$
	Equations (algebra)	<ul style="list-style-type: none"> • Translate word problems with a variable into number sentences. $3 + \square = 10$ What is the something? • Solve one-step number sentences and equations.
Shape and space	2-D shapes	<ul style="list-style-type: none"> • Make informal deductions about 2-D shapes and their properties. A triangle has 3 sides etc. • Use angle and line properties to classify and describe triangles and quadrilaterals. • Construct triangles from given sides and angles • Identify the properties of the circle. i.e. draw a circle • Construct (draw) a circle of given radius or diameter. • Tessellate combinations of 2-D shapes – see if they join together • Classify 2-D shapes according to their lines of symmetry - can you fold it? • Plot simple co-ordinates and apply where appropriate. • Use 2-D shapes and properties to solve problems. e.g. used when tiling floor

Sixth Class		
Strand	Strand Unit	Content/Learning Objectives
	Area	<ul style="list-style-type: none"> Recognise that the length of the perimeter (e.g. fence) of a rectangular shape does not determine the area (space) of the shape. Calculate the area of regular and irregular 2-D shapes -Triangle (flat) Measure the surface area of specified 3-D shapes – Cube/box Calculate area using ares and hectares. <p style="text-align: center;">are</p> <p style="text-align: center;">$1 \text{ are} = 10\text{m} \times 10\text{m} = 100\text{m}^2$</p> <div style="text-align: center;">  <p>A square with side length 10m and area 100m².</p> </div> <p style="text-align: center;">$10\text{m} \times 10\text{m} = 100\text{m}^2$</p> <p style="text-align: center;">hectare</p> <p style="text-align: center;">$100 \text{ ares} = 1 \text{ hectare}$</p> <p style="text-align: center;">$100 \text{ m} \times 100\text{m} = 10,000 \text{ m}^2 = 1 \text{ hectare}$</p> <div style="text-align: center;">  <p>A square with side length 100m and area 1 hectare.</p> </div> <p style="text-align: center;">$100\text{m} \times 100\text{m} = 10,000\text{m}^2 = 1 \text{ hectare}$</p> <ul style="list-style-type: none"> Identify the relationship between square metres and square centimetres. Find the area of a room from a scale plan.
	Weight	<ul style="list-style-type: none"> Select and use appropriate instruments of measurement Rename measures of weight.
	Capacity	<ul style="list-style-type: none"> Select and use appropriate instruments of measurement. e.g. Jug, cup Rename measures of capacity. (1lt = 1000 mls) Find the volume of cuboid experimentally (pour water)
	Time (Linkage and Integration)	<ul style="list-style-type: none"> Explore international time zones. Go west take off 1 hr. Go east add on 1 hr. Explore the relationship between time, distance(journey) and average speed. $\text{Speed} = \text{distance} \div \text{time}$. $\text{time} = \text{distance} \div \text{speed}$ $\text{distance} = \text{speed} \times \text{time}$
	Money (Linkage)	<ul style="list-style-type: none"> Explore value for money. Finding price of 1. Convert other currencies to euro and vice versa. Euro Zone.
Data	Representing and interpreting data (Linkage and Integration)	<ul style="list-style-type: none"> Collect, organise and represent data using pie charts and trend graphs. Read and interpret trend graphs and pie charts. Compile and use simple data sets. (graphs, bar charts). Explore and calculate averages of simple data sets. Use data sets to solve problems.
	Chance (Integration)	<ul style="list-style-type: none"> Identify and list all possible outcomes of simple random processes. E.g. throwing 2 dice Estimate the likelihood of occurrence of events: order on a scale from 0 to 100%, 0 to 1. Construct and use frequency charts and tables.
Tables		<ul style="list-style-type: none"> Addition Subtraction Multiplication Division