

Inspire Maths 3 Long-term Plan

Unit title	Key concepts
1 Numbers to 10 000	
Counting	<ul style="list-style-type: none"> Counting numbers up to 10 000 by using concrete representations and strategies of ones, tens, hundreds and thousands
Place value	<ul style="list-style-type: none"> The digits of a number have their own values in terms of ones, tens, hundreds and thousands
Comparing, order and pattern	<ul style="list-style-type: none"> Numbers up to 10 000 can be compared and arranged in ascending or descending order
2 Addition of Numbers within 10 000	
The meaning of sum	<ul style="list-style-type: none"> The meaning of 'sum' is to add
Simple addition within 10 000	<ul style="list-style-type: none"> Addition within 10 000 without regrouping
Addition with regrouping in hundreds	<ul style="list-style-type: none"> Addition with regrouping in hundreds
Addition with regrouping in ones, tens and hundreds	<ul style="list-style-type: none"> Addition with regrouping in ones, tens and hundreds
Practice Book – Review 1	
Assessment Book – Test 1	
3 Subtraction of Numbers within 10 000	
The meaning of difference	<ul style="list-style-type: none"> The regrouping concept in subtraction
Simple subtraction within 10 000	<ul style="list-style-type: none"> Subtraction without regrouping
Subtraction with regrouping in hundreds and thousands	<ul style="list-style-type: none"> Regrouping from thousands to hundreds
Subtraction with regrouping in ones, tens, hundreds and thousands	<ul style="list-style-type: none"> Subtraction with regrouping in ones, tens, hundreds and thousands
Subtraction with numbers that have zeros	<ul style="list-style-type: none"> Regrouping from thousands to hundreds, tens and ones in subtraction
4 Solving Word Problems 1: Addition and Subtraction	
Word problems	<ul style="list-style-type: none"> Translating addition and subtraction concepts into models for solving two-step word problems
Practice Book – Review 2	
Practice Book – Revision 1	
Assessment Book – Test 2, Challenging Problems 1, Check-up 1	

5 Multiplying by 6, 7, 8 and 9	
Multiplying by 6: skip-counting	<ul style="list-style-type: none"> • The 'group and item' concept is used for the multiplication facts of 6 • Repeated addition is used for multiplication
Multiplying by 7: skip-counting	<ul style="list-style-type: none"> • The 'group and item' concept is used for the multiplication facts of 7 • Repeated addition is used for multiplication
Multiplying by 8: skip-counting	<ul style="list-style-type: none"> • The 'group and item' concept is used for the multiplication facts of 8 • Repeated addition is used for multiplication
Multiplying by 9	<ul style="list-style-type: none"> • The 'group and item' concept is used for the multiplication facts of 9 • Repeated addition is used for multiplication
Short cut method for multiplying by 6, 7, 8 and 9	<ul style="list-style-type: none"> • The relating facts concept is used to find a more difficult multiplication fact
Division: finding the number of items in each group	<ul style="list-style-type: none"> • Division is the inverse of multiplication • Division involves distribution of a set of items equally into some groups by relating multiplication facts
Division: making equal Groups	<ul style="list-style-type: none"> • The 'group and item' concept in multiplication is applied • Relating multiplication and division using the 'group and item' concept is applied
6 Multiplication	
Multiplication without regrouping	<ul style="list-style-type: none"> • A number up to 1000 can be conceptualised as the sum of its values in the ones, tens and hundreds places • Multiplication of a 2-digit number or a 3-digit number by a 1-digit number is the sum of multiplying values from different places
Multiplication with regrouping in ones, tens and hundreds	
Multiplication with regrouping in ones, tens, hundreds and thousands	
	<ul style="list-style-type: none"> • A number up to 1000 can be conceptualised as the sum of its values in the ones, tens and hundreds places • Multiplication of a 2-digit number or a 3-digit number by a 1-digit number is the sum of multiplying values from different places • Regrouping in ones, tens, hundreds and thousands is used in multiplication
Practice Book – Review 3	
7 Division	
Quotient and remainder	<ul style="list-style-type: none"> • Division of a 2-digit number by a 1-digit number with remainder
Odd and even numbers	<ul style="list-style-type: none"> • Recognising patterns to identify odd and even numbers
Division without remainder and regrouping	<ul style="list-style-type: none"> • Expressing a number as a sum of values of different places • Dividing equally with no remainder
Division with regrouping in tens and ones	<ul style="list-style-type: none"> • Expressing a number as a sum of values of different places • Dividing equally with or without remainder • Regrouping from values of a higher place (tens) to a lower place (ones) in division
Division with regrouping in hundreds, tens and ones	<ul style="list-style-type: none"> • Expressing a number as a sum of values of different places • Dividing equally with or without remainder • Regrouping from values of a higher place (e.g., hundreds) to a lower place (e.g., tens) in division
Assessment Book – Test 3	

8 Solving Word Problems 2: Multiplication and Division	
Multiplication: one-step word problems	<ul style="list-style-type: none"> • The multiple concept in multiplication is used to compare two sets of items • Bar diagrams can be based on problem situations in multiplication
Multiplication: two-step word problems	<ul style="list-style-type: none"> • Multiplication concepts including 'multiple' and 'group and item' are used for solving two-step word problems • Addition concepts such as 'adding on' and 'part-whole' are used for solving two-step word problems • Subtraction concepts such as 'taking away' and 'part-whole' are used for solving two-step word problems
Division: one-step word problems	<ul style="list-style-type: none"> • The division concepts: finding the number of groups and the number of items in each group are applied • Division is the inverse of multiplication
Division: two-step word problems	<ul style="list-style-type: none"> • Division concepts using 'group and item' are used for solving two-step word problems • Addition concepts such as 'adding on' and 'part-whole' are used for solving two-step word problems • Subtraction concepts such as 'taking away' and 'part-whole' are used for solving two-step word problems
9 Mental Calculations	
Mental addition	<ul style="list-style-type: none"> • Applying number bonds to assist mental calculations
Mental subtraction	<ul style="list-style-type: none"> • Applying number bonds in subtraction
More mental addition	<ul style="list-style-type: none"> • Relating a number that is close to 100 to a number bond and applying the number bond to do mental addition
Mental multiplication	<ul style="list-style-type: none"> • Reversing the order of groups and items in a multiplication concept produces the same product
Mental division	<ul style="list-style-type: none"> • Division is the inverse of multiplication
Practice Book – Review 4	
Practice Book – Revision 2	
Assessment Book – Test 4, Challenging Problems 2, Check-up 2	
10 Money	
Addition	<ul style="list-style-type: none"> • Adding money is similar to adding whole numbers
Subtraction	<ul style="list-style-type: none"> • Subtracting money is similar to subtracting whole numbers
Word problems	<ul style="list-style-type: none"> • Concepts in adding and subtracting whole numbers are applied in problems involving money
11 Length, Mass and Volume	
Metres and centimetres	<ul style="list-style-type: none"> • Visualising and measuring in compound units, metres (m) and centimetres (cm)
Kilometres and metres	<ul style="list-style-type: none"> • Visualising and measuring in compound units, kilometres (km) and metres (m)
Kilograms and grams	<ul style="list-style-type: none"> • Visualisation and measurement of a kilogram (kg) and a gram (g)
Litres and millilitres	<ul style="list-style-type: none"> • Visualisation and measurement of volume and capacity in litres (l) and millilitres (ml)

12 Solving Word Problems: Length, Mass and Volume	
One-step word problems	<ul style="list-style-type: none"> • Concepts of addition, subtraction, multiplication and division in whole numbers are applied to solve word problems on length, mass and volume
Two-step word problems	<ul style="list-style-type: none"> • Concepts in the four operations are applied to solve two-step word problems
Practice Book – Review 5	
Assessment Book – Test 5	
13 Bar Graphs	
Making bar graphs with scales	<ul style="list-style-type: none"> • A bar graph represents synthesised data for presentation
Reading and interpreting bar graphs	<ul style="list-style-type: none"> • Whole number concepts are applied to bar graphs in reading and interpretation of concepts
14 Fractions	
Numerator and denominator	<ul style="list-style-type: none"> • A whole is divided into parts and the fraction symbol is used to determine the parts of the whole • The terms ‘numerator’ and ‘denominator’ give precise definition of parts of a whole
Understanding equivalent fractions	<ul style="list-style-type: none"> • A length model with bars showing parts of whole is used to represent fractions • Two equal parts of different divisions taken from the same whole number, with the same size, are equivalent
More equivalent fractions: short cut	<ul style="list-style-type: none"> • The multiplying factor technique is applied to find equivalent fractions • The dividing factor technique is applied to find equivalent fractions
Comparing fractions	<ul style="list-style-type: none"> • Two fractions are equal when they are expressed as equivalent fractions • Two fractions can be compared by referring to the values of the numerators when the denominators of the two fractions are the same • Two fractions can be compared by referring to the values of the denominator when the numerators of the two fractions are the same
Adding fractions	<ul style="list-style-type: none"> • Two fractions are related when the denominator of one fraction is a multiple of the denominator of the other fraction • When adding related fractions, the related fractions are changed to like fractions first
Subtracting fractions	<ul style="list-style-type: none"> • Two fractions are related when the denominator of one fraction is a multiple of the denominator of the other fraction • When subtracting related fractions, the related fractions are changed to like fractions first
Practice Book – Review 6	
Practice Book – Revision 3	
Assessment Book – Test 6, Challenging Problems 3, Check-up 3	
15 Time	
Telling the time	<ul style="list-style-type: none"> • Using ‘past’ and ‘to’ in telling the time
Conversion of hours and minutes	<ul style="list-style-type: none"> • Pupils use $1 \text{ h} = 60 \text{ mins}$ to convert the time

Addition	<ul style="list-style-type: none"> Hours and minutes can be added like whole numbers Regrouping concepts (60 mins = 1 h) are applied to whole numbers
Subtraction	<ul style="list-style-type: none"> Hours and minutes can be subtracted like whole numbers Regrouping concepts (60 mins = 1 h) are applied to whole numbers
Duration in hours and minutes	<ul style="list-style-type: none"> Say the duration of time in hours, minutes and hours and minutes
Word problems	<ul style="list-style-type: none"> Use of the unitary method is required to solve problems
16 Angles	
Understanding angles	<ul style="list-style-type: none"> An angle is a measure of the amount of turning
Identifying angles	<ul style="list-style-type: none"> Angles are measurements of turning which can also be made using 2D shapes
Right angles	<ul style="list-style-type: none"> A right angle is a special type of angle, which is formed by two straight lines meeting at a point
Assessment Book – Test 7	
17 Perpendicular and Parallel Lines	
Perpendicular lines	<ul style="list-style-type: none"> When two straight lines intersect each other at right angles, they are perpendicular to each other
Drawing perpendicular lines	<ul style="list-style-type: none"> Perpendicular lines are made when two lines meet at a right angle
Parallel lines	<ul style="list-style-type: none"> Parallel lines are two straight lines drawn in such a way that they will never meet and the distance between them will always be the same
Drawing parallel lines	
18 Area and Perimeter	
Area	<ul style="list-style-type: none"> Area is the amount of space that covers the surface of a shape The amount of space is measured by the number of standard units
Square centimetres (cm ²)	<ul style="list-style-type: none"> A square centimetre is a standard unit for measuring area
Square metres (m ²)	<ul style="list-style-type: none"> A square metre is a standard unit for measuring bigger areas
Perimeter and area	<ul style="list-style-type: none"> Perimeter is the distance around a shape Area is the amount of space that covers the surface of the shape
More perimeter	<ul style="list-style-type: none"> Perimeter is the distance around a shape
Area of a rectangle	<ul style="list-style-type: none"> The area of a rectangle is the amount of space that covers the surface The area of a rectangle is the same as length × width of the rectangle
Practice Book – Review 7	
Practice Book – Revision 4	
Assessment Book – Test 8, Challenging Problems 4, Check-up 4	