

Year Three Inspire Objective Target Sheet

NUMBERS TO 10,000

1. count in ones, tens, hundreds and thousands, and read and write their corresponding numbers and number words
2. recognise concrete representations of numbers to 10 000
3. recognise that 10 hundreds = 1 thousand
4. translate numbers from
 - (i) models to words and figures
 - (ii) figures to words
 - (iii) words to figures
5. recognise and interpret sentences associated with tens and ones
6. represent numbers as thousands, hundreds, tens and ones in a place value chart
7. use a place value chart to show concrete representations of thousands, hundreds, tens and ones given a number to 10 000
8. read and write numerals in a place value chart given a set of concrete representations and vice versa
9. state the place and value of each digit in a number
10. write a 4-digit number in terms of thousands, hundreds, tens and ones
11. write a 4-digit number as the sum of the values of each digit in the number
12. use the 'comparing thousands, hundreds, tens and ones' strategy to compare numbers to 10 000
13. compare numbers to find 'greater/smaller than' and the 'greatest/smallest'
14. identify the number which is 1/10/100/1000 more/less than a number
15. compare numbers and arrange them in ascending or descending order
16. compare numbers by place value to look for a pattern to complete the number series

UNIT TWO: ADDITION OF NUMBERS WITHIN 10,000

17. relate the word 'sum' to the addition operation
18. add within 1000 with or without regrouping
19. add within 10 000 without regrouping
20. add using concrete representations and place value charts
21. begin column addition by adding the ones, tens, hundreds and thousands in order
22. add without using concrete representations and without place value charts
23. add two 4-digit numbers with regrouping in hundreds using concrete representations
24. show regrouping of hundreds to thousands and hundreds
25. carry out column addition by adding the hundreds first, then the thousands with regrouping in the hundreds place
26. add two 4-digit numbers with regrouping in ones, tens and hundreds using concrete representations
27. show regrouping of ones to tens and ones; tens to hundreds and tens; hundreds to thousands and hundreds
28. carry out column addition with regrouping in the ones, tens and hundreds places
29. solve addition word problems with regrouping by using concrete representations

UNIT THREE: SUBTRACTION OF NUMBERS WITHIN 10,000

30. interpret the difference between two numbers when subtracting the smaller number from the greater number
31. subtract two numbers within 10 000 with regrouping in the ones column
32. translate verbal statements and models to subtraction number sentences
33. subtract two 4-digit numbers without regrouping use concrete representations to subtract without regrouping
34. use column subtraction by subtracting the digits in the ones place first, followed by the tens, then the hundreds and finally the thousands
35. subtract two 4-digit numbers with regrouping in hundreds and thousands
36. use concrete representations to subtract numbers with regrouping
37. show regrouping of thousands to thousands and hundreds

38.	carry out column subtraction by first subtracting the ones, followed by the tens; then regroup the thousands and hundreds to subtract the hundreds and finally the thousands
39.	subtract two 4-digit numbers with regrouping in ones, tens, hundreds and thousands
40.	use concrete representations to subtract numbers with regrouping
41.	show regrouping of tens to tens and ones; hundreds to hundreds and tens; thousands to thousands and hundreds
42.	carry out column subtraction by first subtracting the ones, followed by the tens, then the hundreds and finally the thousands
43.	subtract a 4-digit number from another 4-digit number that has zeros in the hundreds, tens and ones
44.	translate verbal statements and models to subtraction number sentences
45.	use concrete representations to show regrouping from thousands to hundreds, tens and ones
46.	carry out column subtraction starting with the ones, tens, hundreds and thousands by regrouping
47.	solve subtraction word problems involving numbers with zeros by drawing models
UNIT FOUR: SOLVING WORD PROBLEMS: ADDITION AND SUBTRACTION	
48.	solve two-step word problems by using models that represent the problem situation
49.	make up two-step word problems using given words and numbers in addition and subtraction
UNIT FIVE: MULTIPLYING 6,7,8 and 9	
50.	commit the six, seven, eight and nine times table facts to memory
51.	Find and write division facts by recalling multiplication facts
52.	use concrete representations in a place value chart to show multiplication of a 2-digit or 3-digit number by 2, 3, 4 or 5 without regrouping
53.	multiply a 2-digit or 3-digit number by 2, 3, 4 or 5 without regrouping in horizontal or vertical format
54.	know that the 'product' is the result of multiplying two numbers
55.	carry out the multiplication procedure by multiplying numbers from right to left
56.	use concrete representations in a place value chart to show multiplication of a 2-digit or 3-digit number by 2, 3, 4 or 5 with regrouping in ones, tens and hundreds
57.	multiply a 2-digit or 3-digit number by a 1-digit number with regrouping in ones, tens and hundreds in horizontal or vertical format
UNIT SIX: MULTIPLICATION	
58.	use concrete representations in a place value chart to show multiplication of a 2-digit or 3-digit number by 2, 3, 4 or 5 with regrouping in ones, tens, hundreds and thousands
59.	multiply a 2-digit or 3-digit number by a 1-digit number with regrouping in ones, tens, hundreds and thousands in horizontal or vertical format
UNIT SEVEN: DIVISION	
60.	divide a 1-digit or a 2-digit number by a 1-digit number without remainder
61.	divide a 1-digit or a 2-digit number by a 1-digit number with remainder
62.	use the long division format to divide and find the quotient and remainder
63.	use the fact all odd numbers end with 1, 3, 5, 7 or 9 while all even numbers end with 2, 4, 6, 8 or 0
64.	show, with concrete representations in a place value chart, a number divided by another number with no regrouping or remainder
65.	divide a 2-digit number by a 1-digit number with no regrouping or remainder
66.	show division of a 2-digit number by a 1-digit number with regrouping from tens to ones, with or without remainder
67.	solve simple division word problems involving division of a 2-digit number by a 1-digit number with regrouping from tens to ones
68.	divide a 3-digit number by a 1-digit number with regrouping from hundreds to tens, then from tens to ones with or without remainder
69.	solve simple word problems involving division of a 3-digit number by a 1-digit number with regrouping from hundreds to tens, then from tens to ones with or without remainder
UNIT EIGHT: SOLVING WORD PROBLEMS: MULTIPLICATION AND DIVISION	
70.	solve one-step and two-step word problems on multiplication using model drawing
71.	write two-step word problems:

	(a) using given words and numbers (b) by interpreting a given model
72.	solve one-step word problems on division using model drawing
73.	solve two-step word problems using other operational concepts with division concepts
74.	write two-step word problems: (a) using given words and numbers (b) by interpreting a given model
UNIT NINE: MENTAL CALCULATIONS	
75.	add and subtract a 2-digit number to another 2-digit number
76.	break up a large number with tens to a single digit number and tens to find the multiplication
77.	break up a large number with tens to a single digit number and tens to find the division
UNIT TEN: MONEY	
78.	Add and subtract two amounts of money with and without regrouping
79.	Add and subtract two amounts of money where the pence add up to 1 pound
80.	add and subtract two amounts of money by converting each amount to pence
81.	add and subtract two amounts of money using the standard method
82.	solve word problems involving addition and subtraction of money with up to two steps
UNIT ELEVEN: LENGTH, MASS AND VOLUME	
83.	recall the units of measurement as metres and centimetres for measuring lengths and distances
84.	use metres and centimetres as units of measurement to estimate & measure given lengths & distances
85.	use the formula relating metres and centimetres, $1\text{ m} = 100\text{ cm}$, for conversion of units
86.	convert metres to centimetres and centimetres to metres, and metres and centimetres into centimetres only
87.	solve simple word problems involving conversion of centimetres and metres
88.	use kilometres and metres as units of measurement for long distances
89.	estimate and measure long distances using kilometres and metres
90.	use the formula relating kilometres and metres, $1\text{ km} = 1000\text{ m}$, for conversion of units
91.	convert kilometres to metres, metres to kilometres, and metres to kilometres and metres
92.	solve simple word problems involving conversions of kilometres and metres
93.	read scales in kilograms and grams and find the masses of objects in kg and g
94.	estimate and find out actual masses of objects by using different scales
95.	use the formula relating kilograms and grams, $1\text{ kg} = 1000\text{ g}$, for conversion of units
96.	convert kilograms to grams, grams to kilograms, and grams to kilograms and grams
97.	solve simple word problems involving conversions of kilograms and grams
98.	use a measuring cylinder to find the volume of liquid in a container
99.	estimate and find out the actual volume of liquid in litres and millilitres
100.	find the total amount of liquid in several containers and find the capacity of a container
101.	use the formula relating litres and millilitres, $1\text{ l} = 1000\text{ ml}$, for conversion of units.
UNIT TWELVE: SOLVING WORD PROBLEM: LENGTH, MASS AND VOLUME	
102.	solve one-step word problems on length, mass and volume using model drawing
103.	solve two-step word problems on length, mass and volume using model drawing
104.	write two-step word problems
UNIT THIRTEEN: BAR GRAPHS	
105.	make bar graphs with scales of 2, 3, 4, 5 or 10
106.	collect and record the number of items in each category and use the data to draw a bar graph
107.	make comparisons, find sums & differences between different bars in a bar graph & solve problems
UNIT FOURTEEN: FRACTIONS	
108.	use the terms 'numerator' and 'denominator' to describe the parts of fractions
109.	write a fraction given the numerator and the denominator
110.	solve word problems relating to numerators and denominators
111.	divide a fraction strip into equal parts to show a fraction

112.	divide the divided fraction parts into further equal parts to show the equivalent fraction
113.	write the equivalent fractions of a given fraction with denominator not greater than 12, with the help of model drawing
114.	write the equivalent fractions of a given fraction using the multiplying and dividing factor technique
115.	express a fraction in its simplest form using the dividing factor technique
116.	compare two or three related fractions and identify the greater or smaller fraction using the equivalent fraction method
117.	compare two or three unrelated fractions and identify the greater or smaller fraction using the equivalent fraction method
118.	compare and arrange two or three fractions in ascending or descending order
119.	add two or more related fractions
120.	subtract a fraction from another related fraction
121.	subtract two related fractions from a whole
UNIT FIFTEEN: TIME	
122.	tell the time shown on a clock
123.	read a time (e.g. 7:20 a.m.) as (i) seven twenty (ii) twenty minutes past seven
124.	read a time (e.g. 5:40 p.m.) as (i) five forty (ii) twenty minutes to six
125.	draw the minute hand on a clock face when given the time
126.	state that 1 h = 60 mins and convert hours to minutes
127.	convert hours and minutes to minutes and vice versa
128.	add time with no regrouping by adding the hours first, then the minutes
129.	add time with regrouping by adding the minutes first, then the hours
130.	subtract time without regrouping by subtracting the hours first, then the minutes
131.	subtract time with regrouping by first regrouping the hours and minutes, next subtracting the minutes, then subtracting the hours
132.	find the duration between two given times in (i) hours (ii) minutes (iii) hours and minutes
133.	find the end time given the start time and the duration and vice versa
134.	Pupils will be able to solve up to two-step word problems on time.
UNIT SIXTEEN: ANGLES	
135.	identify what is an angle and what is not an angle
136.	identify the bigger/biggest or smaller/smallest angle given two or more angles
137.	arrange angles in ascending or descending order
138.	identify and mark angles on 2D and 3D shapes
139.	associate the number of sides with the number of angles in geometrical shapes
140.	use a folded piece of paper to make a right angle
141.	tell whether a given angle is bigger or smaller than a right angle
142.	make angles using paper strips and compare angles with a right angle
UNIT SEVENTEEN: PERPENDICULAR AND PARALLEL LINES	
143.	state that perpendicular lines are two straight lines that meet at a right angle.
144.	recognise the symbol which stands for 'is perpendicular to'
145.	identify perpendicular lines drawn on squared paper with a piece of double-folded paper or a ruler
146.	identify perpendicular lines in everyday objects
147.	draw perpendicular lines on squared paper such that (i) the lines lie on the grid lines (ii) the lines do not lie on the grid lines
148.	state that two parallel lines do not meet and the distance between the two lines is always the same
149.	recognise the symbol which stands for 'is parallel to'
150.	identify parallel lines on a square grid by sight or by determining if they are the same distance apart
151.	name pairs of parallel lines in a shape drawn on a square grid & identify parallel lines in everyday objects
152.	draw parallel lines on square grid paper such that (i) the lines lie on the grid lines (ii) the lines do not lie on the grid lines

UNIT EIGHTEEN: AREA AND PERIMETER

153.	understand that the area of a shape is the amount of surface covering it
154.	understand that a square or a half-square is used as a standard unit for representing area
155.	find the area of a shape, made by squares and half-squares, in terms of square units
156.	make different shapes of the same area with the same number of square units
157.	find the area of a composite shape in square centimetres (cm ²)
158.	find the area of rectangles and composite shapes in square metres (m ²) and compare sizes of composite shapes
159.	estimate the area of a shape and compare it with the measurement of its actual area
160.	understand the meaning of perimeter
161.	find the perimeter of shapes made from squares and rectangles
162.	calculate and compare the area and perimeter of two shapes by counting the number of square units (cm ² or m ²) and distance around the shape (cm or m)
163.	understand that two shapes can have: (a) the same area and the same perimeter (b) the same area but different perimeters (c) the same perimeter but different areas.
164.	find the area of a rectangle using the multiplication concept: rows × columns
165.	find the area of rectangle using formula: Area = Length × Width
166.	solve problems involving the four operations to find the area and perimeter of a variety of shapes.