# OO TLEES

## Year 2 term 5 and 6

### **Oral and Mental calculation**

- Count to and beyond 100 starting from any number
- Order a set of random numbers to 100.
- Find 1 more/1 less of any number to 100
- > Find 10 more / 10 less of any number within 100
- Count in tens from any number, forwards and backwards
- > Count on and back in 1s from any number to 100
- Count on and back in steps of 2, 3 and 5 from 0
- Count on and back in 10s from any number.
- ➤ Recall multiplication facts for the 2x, 5x and 10x tables
- Recognise odd and even numbers.
- Recall addition and subtraction facts for each number up to 20 including missing number questions
- Recall related facts up to 100 i.e. 2+8=10 so 20+80=100
- > Recall doubles of numbers to at least 50
- Recall halves of even numbers to 100
- Round number to 100 to the nearest 10
- Add a single digit number to any 2-digit number.
- > Take away a single digit number from 2-digit number
- > Find the difference between two numbers within 50
- ➤ Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
- Use the inverse relationship between addition and subtraction to check calculations and solve missing number problems
- Use the inverse relationship between addition and subtraction to solve missing number problems
- ➤ Recall multiplication division facts for 2x, 5x and 10 tables

## Week | Main focus of teaching

## 1 & 2 | Number - place value & counting

- Step 9 & End of Year expectations Partition two –digit numbers up to 99 into tens and ones Recognise the place value of each digit in a two-digit number (tens, ones). Using concrete objects.
- Step 9 & End of Year expectations Read and write numbers to at least 100 in numerals AND words.
- Step 9 & End of Year expectations Compare and order numbers from 0 up to 100; use <, > and = signs and explain reasoning.
- Step 9 Partition numbers in different ways (for example, 45 = 20 + 25 and 45 = 30 + 13).
- Step 9 & End of year expectations Count in steps of 2, 3 and 5 from 0,

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4/	зсноо and in tens from any number forwards and backwards.
	• Steps 7-9 - Use place value and number facts to solve problems.
3	Addition to solve problems
	<ul> <li>End of year expectations - Recall and use addition and subtraction facts</li> </ul>
	to 20 fluently
	• Step 9 & End of year expectations Begin to find and use related facts
	addition and subtraction facts up to 100
	Step 8 & End of year expectations - Add numbers using concrete
	objects, pictorial representations and mentally including:
	A 2 digit number and ones
	A 2 digit number and tens
	Adding three 1 digit numbers
	Two 2 digit numbers.
	Ensure children think –can I do it in my head, with some jottings or by  using an expanded written, method.
	using an expanded written method
	<ul> <li>Step 9 - Beginning to record the addition of 2 2-digit numbers in a vertical format.</li> </ul>
	<ul> <li>Step 8 - Use inverse to check the answers to calculations</li> </ul>
	Step 7-9 - Solve problems with addition
4	Subtraction to solve problems
	<ul> <li>End of year expectations - Recall and use addition and subtraction facts</li> </ul>
	to 20 fluently
	<ul> <li>Step 9 &amp; End of year expectations - Derive and use related facts addition and subtraction facts up to 100</li> </ul>
	<ul> <li>Ensure children think –can I do it in my head, with some jottings or by using an expanded written method</li> </ul>
	Step 8 & End of year expectations – Subtract numbers using concrete
	objects, pictorial representations and mentally including:
	A 2 digit number and ones
	A 2 digit number and tens
	Two 2 digit numbers
	<ul> <li>Step 8 - Use inverse to check answers to calculations</li> </ul>
	Steps 7-9 - Solve problems with subtraction
5	Measures –Money to solve problems
	<ul> <li>End of year expectations - Recognise and use symbols £ for pounds and p</li> </ul>
	for pence.

- End of year expectations Combine coins to make a different amount of money.
  - Step 9 & End of year expectations Find combinations of coins that equal the same amount of money.
  - Step 9 & End of year expectations Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.
  - Step 9 Beginning to solve problems involving giving change from non-multiples of 10 using counting up.
  - Use inverse to check the answers to calculations

#### 6 Measurement

- Work practically
- Understand how to read simple scales on measuring jugs or containers
- Step 9 & End of Year expectations Choose and use appropriate standard units to estimate and measure length/height in any direction, mass, temperature, capacity, using rulers, scales, thermometers and measuring vessels.
- Estimate and measure using standard units i.e. litre
- Step 9 & End of year expectations Compare and record my results using
   or > and =
- Step 9 Compare measures including simple multiples (e.g. half as high, twice as heavy).
- Practically measure temperature to the nearest degree (°C) using thermometers.

### 7 Multiplication and division to solve problems

- Step 9 & End of year expectations Recall and use multiplication and division facts for the 2x, 5x and 10 x tables, including odd and even numbers.
- Step 9 & End of year expectations Use the fact that multiplication of two numbers can be done in any order and division of one number by another number cannot.
- Step 9 Know the 5 times tables facts up to x 12 without counting.
- End of year expectations Record multiplication and division number sentences for 2x, 5x and 10x tables using x and ÷
- Use inverse to check the answers to calculations
- Steps 7-9 Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication

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	and division facts, including problems in contexts.
8	<ul> <li>Fractions &amp; Decimals</li> <li>Count forwards and backwards in in ½, and ¼ to 10</li> <li>Step 9 - Count forwards in 1/3 to 5.</li> <li>Step 9 &amp; End of year expectations - Recognise, find, name and write fractions 1/3, ½, ¼ and 3/4 of length, shape, number or quantity</li> <li>Write fractions in number sentences e.g., 1/2 of 6 = 3</li> <li>Understand and use the terms numerator and denominator.</li> <li>Step 9 &amp; End of Year expectations - Recognise the equivalence of 2/4 and 1/2.</li> <li>Steps 7-9 - Solve problems with fractions</li> </ul>
9	<ul> <li>Geometry – Properties of shape</li> <li>Step 9 &amp; End of year expectations – Identify and describe the properties of 2D shapes including the number of side and symmetry within a vertical line.</li> <li>Step 9 &amp; End of year expectations – Identify and describe the properties of 3D shapes including the number of edges, vertices and faces.</li> <li>End of Year expectations – identify 2D shapes on the surface of 3D shapes.</li> <li>Step 9 – read and write the names for common 2D and 3D shapes and beginning to use the suffixes e.g. oct, hex to help remember the number of sides/faces.</li> <li>Step 9 – Draw lines and shapes with a straight edge.</li> <li>Steps 7-9 - Solve problems involving shape</li> </ul>
10	<ul> <li>Geometry – Position and direction</li> <li>Step 9 &amp; End of year expectations - I can recognise directions using mathematical vocabulary in terms of right angles for quarter, half and three quarter turns (ant/clockwise) and movement in a straight line.</li> <li>End of year expectations - I can order and arrange combinations of mathematical objects in patterns and sequences</li> </ul>
11	<ul> <li>Step 9- collect data and record it a simple pictograms, tally charts block diagrams and simple tables</li> <li>Step 9 &amp; End of year expectations - Read and interpret scale including 1:1 and /or 1:2.1:5 and 1:10</li> </ul>



- Step 9 Draw simple conclusions about the data collected.
  - Step 9 Make comparisons about the data collected.
  - End of year expectations I can ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.
  - End of year expectations I can ask and answer questions about totalling and comparing categorical data.

### 12 Time to solve problems

- Step 9 & End of year expectations Tell the time to five minutes -link to o'clock, half past, quarter to and quarter past, and draw hands on a clock face to show given times
- Step 9 & End of year expectations Know the number of minutes in an hour and the number of hours in a day
- Step 9 & End of year expectations I can compare and sequence intervals of time
- Steps 7-9 Solve problems involving time including using a number line