

## Second Level Number activities

Activity	Description
<b>Answer is.....what is the question?</b>	Child is given a number and must find calculations which fit it.
<b>Band Aids</b>	A "Show Me" activity using elastic band strips (a strip of card, graduated on one side and blank on the other, with an elastic band around it). Child shows where the number/fraction is on the blank side, e.g. If one end is zero and the other end is one, where will 0.56 be? Next, the strip over to check how accurate their estimate is.
<b>Behind the Wall</b>	Adult slowly slides a number/ shape up behind a cardboard "wall" and stops when part of it is showing. Child shows/tells the adult what the number/shape might be and discuss alternatives. adult reveals the next part of the number/shape and repeats "Show/Tell Me" activity. This continues until the whole number/shape is revealed.
<b>Biggest Total</b>	Child uses digit cards 1 to 7. Adult challenges them to arrange <b>all</b> the cards into 1 and 2 digit numbers to make the biggest total possible. Repeat for the smallest total possible.
<b>Bingo</b>	Child draws a square grid of a specified size then fill their grid with numbers as requested (numbers to 20, even numbers etc.) Adult calls out pairs of numbers. Child adds these numbers and crosses out any answers which they've written on their square. Alternatively, the adult can call out specific calculations (e.g. double 13...26 minus 10)
<b>Buzz</b>	Adult chooses a multiplication table, e.g. 4x. Childs starts at 1 and takes turns with the adult to recite numbers in sequence, substituting multiples of 4 with the word "buzz", e.g. one, two, three, <b>buzz</b> , five, six, seven, <b>buzz</b> etc.
<b>Calculator Patterns</b>	Set the calculator to add a given number repeatedly (e.g. 5++= sets the constant function "add 5"). Display the pattern and ask child to describe the pattern or say what the next number will be.
<b>Cards</b>	Take it in turns to turn over a card from a suit of cards. Calculate the probability of the subsequent card being higher or lower. If child/adult guesses correctly a point is scored. The winner is the player with the most points once all the cards have been used.
<b>Chain Sums</b>	Childs sit with their eyes closed. Adult gives a chain sum, e.g. $4 + 7 - 2$ ; $3 \times 5 + 7$ ; $49 \div 7 + 5$ etc Child opens eyes and shares the answer.
<b>Cover Ups</b>	Child covers the answer to a given question with counters/markers, e.g. cover up - all the multiples of 7; the number which is 40 more than 26 etc.
<b>Dead Stop</b>	Child counts forwards or backwards within an appropriate number range and stop when they've have counted a certain number of jumps, e.g. count back 6000 from 7250 in jumps of 1000. Alternatively, give child starting and finishing numbers and size of jump. Independently, count within these numbers, then say how many jumps have been counted, e.g. Jump on from 737 to 817 in tens. How many jumps?

<b>Find my Rule</b>	Draw two boxes, each containing a list of around six numbers. Tell the child there is one rule for putting numbers in the box on the left and a different rule for putting numbers in the box on the right. Reveal the numbers in each box one row at a time. What could the rule(s) be?
<b>Fit a Sequence</b>	Adult writes a pair of numbers out for the child. The child must provide all the numbers that will fit between the given numbers to form a sequence, e.g. 9 and 25 could generate the following: 9, 11, 13, 15, 17, 19, 21, 23, 25 (odd) 9, 13, 17, 21, 25 (difference of 4) 9, 16, 25 (square numbers)
<b>Fraction Snap</b>	Adult says or writes a fraction then child writes an equivalent fraction.
<b>Function Machines</b>	Draw a simple function machine. Choose a function, e.g. $\times 7$ and write this on the machine. Play "Show Me" to match which number comes out, e.g. Show me which number will come out if I put in 6. Alternatively, tell child which number is going to come out of the machine and ask them to show which number went in.
<b>Guess My Number</b>	Adult thinks of a number but does not reveal it. She/he then gives one fact about the number, e.g. it is odd. Child tries to guess the number and writes down possible answers. Adult provides further facts about the number, one by one, with child's suggestions being shown after each fact until number has been guessed.
<b>Hold That Thought</b>	A <b>chain sum</b> in context, e.g. people getting on and off a bus. Pause after each statement and tell Childs to "Hold that thought", e.g. There are 22 people on the bus. At the first stop 5 get off and 7 get on.....hold that thought. At the next stop..... etc.
<b>Imaginary Multiplication Square</b>	Child closes their eyes and pictures the multiplication square in their heads. Adult poses questions, e.g. I'm looking at 16. To the left is 12. What number is to the right/above/underneath?
<b>Juggling Numbers</b>	Adult introduces three numbers and a target number which must be made using all numbers in the set of three. The child may add, subtract, multiply or divide but can only use each number once, e.g. use 4, 6 & 20....Target number is 2. Answer: $20 \div (6+4) = 2$ . Ensure child use brackets to indicate the order in which to calculate. Adult may choose to play a short piece of music. Child has until the music runs out to find the solution.
<b>Missing Signs</b>	Adult displays a number sentence with the operations missing, e.g. $64 * 3 * 2 * = 134$ . Child tries to solve the problem before time up/music runs out.
<b>Multiplication Trio</b>	Child is given 3 numbers and a target number, e.g. "I multiply 3 numbers together. The answer is 60. What could the numbers be?" Child is then given a set time to work out as many possibilities as he/she can.
<b>Number Chains</b>	Start with a small number, e.g. 1. Apply a pair of operations to it, e.g. $\times 2$ then $+2$ . Then apply the same operations to the result and all successive results. Write the resulting sequence on a piece of paper: 1, 4, 10, 22, etc. Child indicates when he/she thinks they know what the two operations are and continues the sequence.
<b>Number Lines</b>	Use for: counting on and back in single numbers or multiples; estimating position of numbers; order, equivalence and value of whole numbers, fractions or decimals.

<b>Number Neighbours</b>	Adult gives the sum of two or more consecutive numbers (ensuring the sum is always odd). Child works out what the numbers could be, e.g. The sum of two consecutive numbers/number neighbours is 17. What are the numbers? (8 & 9)
<b>Pendulum Count</b>	Counting on and back to match the swing of a pendulum.
<b>Rotation Game</b>	Start with child facing north. Child closes eyes and listens for command (e.g. turn to face NE, turn $270^{\circ}$ ).
<b>Save the Cat!</b>	Write down a number within a certain range, e.g. 0 - 1000 but don't let the child see it. Next he/she must try to guess the number by asking no more than nine questions i.e. the child must save the cat before it runs out of lives!
<b>Show Me</b>	Child uses visual resources to show the answer simultaneously in response to a question.
<b>Silent Counting</b>	Child counts silently along to a regular rhythm (e.g. clapping) but only says out loud every 2 <sup>nd</sup> or 3 <sup>rd</sup> number.
<b>Songs &amp; Raps</b>	Child sings or invents songs and raps (with or without actions) to help recall of number facts.
<b>Target Numbers</b>	Challenge child to make a given number by performing a specified operation, e.g. "give me 3 numbers which add to 100."
<b>Target Ten</b>	Challenge child to find as many different ways as possible to make the number ten using the digits 2, 3 and 4. Encourage child to be adventurous, e.g. $(32 \div 2) - (2 \times 3)$ . Ensure child uses brackets to indicate the order in which to calculate.
<b>Tell Me About</b>	Give a number, shape name etc and ask each child to give a different fact about it.
<b>Thigh Clap</b>	Child claps thighs, hands then snap fingers (or other actions) while counting on or backwards by different amounts. Vary the pace by asking child to respond on the second snap only, on both snaps or on every action.
<b>Too Big, Too Small</b>	Adult writes a number range on a piece of paper, e.g. 0 – 100. Child thinks of a number within that range. The response from the first adult can only be "too big" or "too small". The then thinks of the next number. After a few rounds ask child to think of a good strategy for working out the number with the fewest guesses.
<b>Trios</b>	Write + and – or x and ÷ in the centre of a triangle and a number in each corner. Child identifies and records the four related facts. Alternatively, child writes a number in one corner and two factors in each of the other corners, e.g. 20, 4 and 5.
<b>What's the Division?</b>	Child uses the digits 1, 2, 3 and 4 to make as many division sums as possible with a remainder of 1. Each digit can only be used once in each division, e.g. $13 \div 2 = 6$ remainder 1 $43 \div 2 = 21$ remainder 1 Repeat for remainders of 2, 3 and 0. The activity can also be done using different digits, e.g. 2, 3, 4 and 5.

**Will I Say.....?**

Tell child that you have a picture of a number line in your head. You are going to count back on it. Ask questions such as:  
I'm counting back in 5s from 32. Will I say 15? (*no*)  
I'm counting back in 4s from 44. Will I say 0? (*yes*)  
I'm counting back in 3s from 7. Will I say negative 10? (*no*)  
Child explains how he/she arrived at their answer and confirms answers by counting back.