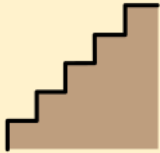








## Six maths games for pupils with dyscalculia & maths difficulties

<h3>1. The Staircase game</h3> 	<p><b>Aim:</b> To develop an understanding of the sequence of numbers from 1 to 10.</p>	<p><b>You will need:</b> Cuisenaire rods 1-10, one of each colour a 0-9 dice.</p>  										
<p><b>How to play:</b></p> <ul style="list-style-type: none"> <li>Two players take it in turn to roll the dice and place the corresponding Cuisenaire rod on the table to create the 1-10 number sequence.</li> <li>If your number is repeated when the die is thrown you miss your turn.</li> <li>So, if player one throws a 2 they will place the red rod on the table. If player two throws a 7, they have to decide how far to the right of the 2 to place the rod in order to make a Cuisenaire Staircase.</li> </ul>												
<h3>2. Clear The Deck</h3> 	<p><b>Aim:</b> To develop instant recall of number bonds to ten.</p>	<p><b>You will need:</b> 4 sets of 0-9 digit cards</p> <table border="1" data-bbox="1043 1021 1283 1160"> <tbody> <tr> <td>0</td> <td>1</td> <td>4</td> <td>5</td> <td>8</td> </tr> <tr> <td>2</td> <td>3</td> <td>6</td> <td>7</td> <td>9</td> </tr> </tbody> </table>	0	1	4	5	8	2	3	6	7	9
0	1	4	5	8								
2	3	6	7	9								
<p><b>How to play:</b> This game is useful at the beginning of a lesson as a warm-up activity, or at the end for revision or consolidation.</p> <ul style="list-style-type: none"> <li>Shuffle the cards and place them face up on the table in three rows of four.</li> <li>Players take it in turns to pick up pairs of cards that add up to 10.</li> <li>The gaps that are left are then filled with cards from the remaining pack.</li> </ul> <p>The idea is to take it in turns and spot the pairs that make 10 as quickly as possible.</p>												
<h3>3. Estimation Game</h3> 	<p><b>Aim:</b> To compare magnitude</p>	<p><b>What you need:</b> 10 dried beans, buttons or glass nuggets A box to use as a shaker</p>  										
<p><b>How to play:</b> <i>Dyscalculic learners find it hard to appreciate and compare magnitude in number and this is a motivating and multi-sensory way to help them do it. It requires visualisation, too; another key skill for them to develop.</i></p> <ul style="list-style-type: none"> <li>Without letting the pupil see, place a small number of the beans/buttons/glass nuggets in an opaque box with a lid.</li> </ul>												

- Shake the box and ask the pupil to guess how many items are in it.
- Then empty the contents onto the table and count the items to see how close the guess was.
- Encourage the child to place the items in a line.
- Repeat with smaller and larger numbers of items.

## 4. Ten Frame Game

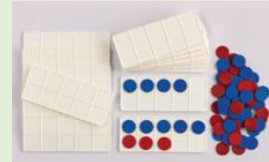
10

### Aim:

To develop conservation of number through reorganising number formation on a ten-frame

### You will need:

Ten ten-frames with each dot arrangement from 1-10; a blank ten-frame; counters to place on the ten-frame.



### How to play:

- Pick a ten-frame card at random and show it to the pupil for five seconds.
- Then remove it and ask them to reproduce the image on their blank ten-frame using the counters.
- Can they tell you how many counters there are? Can they tell you how many spaces there are? Can they make a number story linking the two?

## 5. The Nasty Game

HTU  
3⑤4

### Aim:

To develop an understanding of place value. To make the largest four-digit number from rolling a 0-9 dice four times.

### You will need:

Blank ThHTO Place Value Chart

Thousands T <sub>1</sub>	Hundreds H	Tens T <sub>2</sub>	Units U



### How to play:

- This game is for two players. They take it in turns to roll the die and write the number in their opponent's grid until each player has generated a four-digit number.
- The 'nasty' element is that because you are completing your opponent's grid and not your own, the focus is on getting your opponent to lose.
- So, if you throw a 1 you would place it in your opponent's thousands column, whereas a 9 would go in their units column.

## 6. Trains



**Aim:** To develop estimation and mental arithmetic skills. This makes a good starter activity, requiring visualisation, prediction, estimation and mental calculation.

### You will need:

One Cuisenaire rod of each length between 1 and 10.



### How to play:

- This is a game for two players. Decide who goes first and choose a 'distance' between 11 and 55.
- Let's use 25 as an example. The aim is to make a 'train' that is exactly 25 long.
- Each player in turn puts down a Cuisenaire rod, laying them end to end to create a single train.
- The person who puts down the last rod to make 25 exactly, wins.
- If a player puts down a rod that makes the train longer than 25, the opponent wins.