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Common Indicators of a Specific Learning Difficulty in Mathematics / Dyscalculia Checklist

This checklist lists common indicators of SpLD in Mathematics / Dyscalculia, adapted from the SASC Guidance on Assessment of Mathematics Difficulties and Dyscalculia (2025). Teachers, parents and individuals can use this to identify specific difficulties experienced. It is not a formal screening tool and therefore it should not be used to determine a diagnosis of SpLD (maths) or dyscalculia. If 'yes' is being answered in several sections, seek advice from a qualified assessor.

Indicators of a Specific Learning Difficulty (SpLD) in Mathematics

These indicators reflect a broader set of processing challenges that affect the acquisition of arithmetic and other mathematical areas. Specific examples include:

	Yes	No	Don't know
Basic arithmetic and calculation difficulties:			
Struggles to perform simple operations such as addition, subtraction, multiplication and division - even after repeated instruction.			
Arithmetic and calculation difficulties:			
Frequent errors in carrying out multi-step calculations, such as misplacing digits or omitting steps.			
Working memory and executive function challenges:			
Verbal working memory: Difficulty retaining a series of instructions or multi-step word problems, leading to incomplete solutions.			
Visuo-spatial working memory: Problems with keeping numbers in the correct columns during written calculations or organising complex representations.			
Inhibitory control: Impulsive responses that result in errors, such as prematurely rounding numbers or skipping necessary intermediate steps.			
Language and symbol interpretation difficulties:			
Misunderstanding mathematical vocabulary and symbols, for example confusing "sum" with "difference", not grasping the meaning of terms like "product" or "quotient", or confusing + with x.			
Difficulty decoding word problems due to challenges with language processing.			
Visual-spatial processing issues:			
Problems in aligning numbers correctly in written work (e.g., during long division) or organising components of a problem on paper.			
Difficulty interpreting diagrams, graphs or geometric figures, leading to errors in spatial reasoning.			
Arithmetic fluency and flexibility:			
Slow retrieval of basic arithmetic facts (such as number bonds or times tables), resulting in an over-reliance on counting aids like fingers or calculators.			
Inflexibility in using different strategies to solve problems - sticking rigidly to one method even when it is ineffective.			

Impact on broader mathematical understanding:			
Challenges applying learned numerical concepts to new or unfamiliar problems, whether in classwork, homework, employment or real-life situations.			
Errors in estimation and mental maths, making it hard to verify whether an answer seems reasonable.			
Developmental and lifelong presentation:			
The pattern of difficulties may change over time or vary across different areas of maths, but the underlying processing issues persist throughout life.			
A individual might perform adequately in some contexts while struggling markedly in others, reflecting the influence of both developmental stages and environmental factors.			
Common co-occurring conditions:			
These difficulties are often observed in conjunction with other developmental challenges such as ADHD, dyslexia, developmental language disorder (DLD), developmental coordination disorder (DCD) and autism (ASD).			
Although maths anxiety is frequently present, it is seen as a secondary effect rather than a core indicator.			

Indicators Specifically Associated with Dyscalculia

Dyscalculia is characterised by a pronounced impairment in numerical magnitude processing. Specific examples include:

	Yes	No	Don't know
Numerical magnitude processing deficits:			
Inability to intuitively grasp quantities - for example, having trouble estimating which of two groups of objects is larger.			
Difficulty in understanding that numbers represent a continuum; for instance, not recognising that 20 is quantitatively more than 10 or that numbers closer together are more similar in value.			
Challenges with number naming, sequencing, and ordering:			
Persistent struggles with rapidly naming numbers in sequence, such as during counting exercises.			
Problems with ordering numbers correctly, for example misplacing numbers when arranging them from smallest to largest.			
Place value and estimation difficulties:			
Confusion about the value of digits in multi-digit numbers: misinterpreting the tens, hundreds, or thousands places, which leads to calculation errors.			
Inaccurate estimation skills; for instance, underestimating or overestimating the result of an arithmetic operation without calculation.			
Retrieval of arithmetic facts:			
A marked difficulty in recalling basic arithmetic facts (like multiplication or addition facts) even with repeated practice, leading to an overdependence on external supports such as counting or calculators.			

Specific cognitive deficit in number processing:			
Unlike individuals whose difficulties stem mainly from other cognitive domains, those with dyscalculia show a clear, persistent impairment in processing **numbers**, which does not readily improve with standard teaching methods.			
The impairment remains evident even when other cognitive skills (such as language or memory) are relatively strong.			
Observable behaviours:			
Visible reliance on concrete aids (fingers, counters, visual models) for tasks that peers manage mentally.			
Frustration or avoidance behaviours when faced with tasks that involve estimating or comparing quantities.			
Consistency:			
The challenges with numerical magnitude processing are evident across various contexts and can be disproportionate to the learner's overall cognitive ability.			
Even when interventions are applied, the core difficulty in understanding and manipulating numerical magnitudes tends to persist.			

Further notes and observations:

SASC (2025) Maths Difficulties and Dyscalculia Guidance (2025)
https://www.sasc.org.uk/news/maths-difficulties-and-dyscalculia-guidance-march-25/