

**Dyslexia Outreach
Specialist Teaching Team**

Maths Difficulties and Dyscalculia

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Dyscalculia or Maths Learning Difficulties?

Maths learning difficulties arising from lack of appropriate teaching, environmental factors or other medical conditions

Other SpLDs which do not include a problem with sense of number but which may have an impact upon mathematics learning

Dyscalculia
a SpLD whose core feature is a problem with sense of number

Dyscalculia

Dyscalculia is a specific and persistent **difficulty in understanding numbers** which can lead to a diverse range of difficulties with mathematics. It will be **unexpected in relation to age, level of education and experience** and **occurs across all ages and abilities**.

Mathematics difficulties are best thought of as a **continuum**, not a distinct category, and they **have many causal factors**. **Dyscalculia falls at one end of the spectrum** and will be distinguishable from other mathematics issues due to the **severity of difficulties with number sense, including subitising, symbolic and non-symbolic magnitude comparison, and ordering**. It can occur singly but can also **co-occur with other specific learning difficulties**, mathematics anxiety and medical conditions.

(BDA & SASC 2019)

A domain specific deficit in sense of number:

Subitising

Ordering
(Cardinality &
Ordinality)

Estimation

Symbolic & Non-
symbolic
Magnitude

Understanding
numerical
relationships

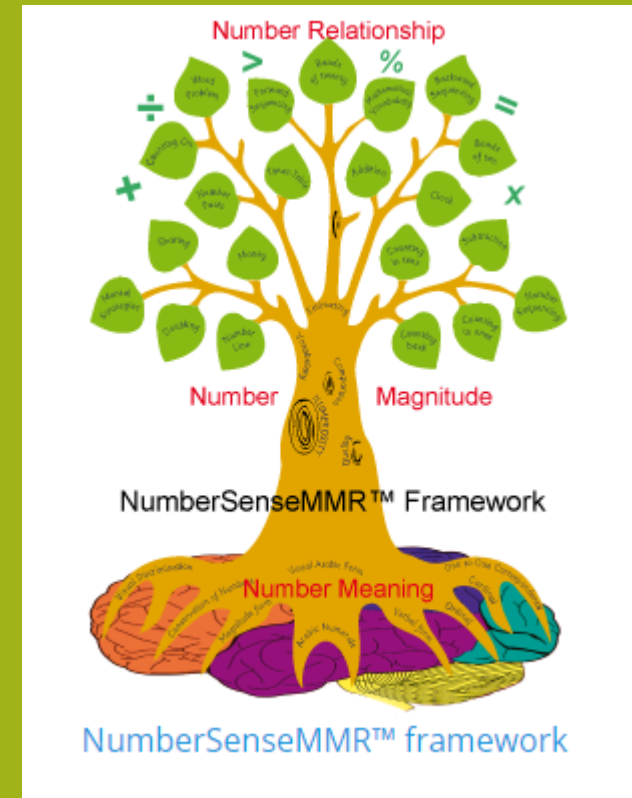
Recommended ways forward

Subscribe to an assessment and intervention programme:

Dynamo Maths: <https://dynamomaths.co.uk>

IDL Numeracy: <https://idlsgroup.com/numeracy>

SNAP Maths: <https://www.risingstars-uk.com/subjects/assessment/snap/snap-maths>



In-school screening

Dyscalculia Checklist (Steve Chinn)

Test aspects of number sense within school

Numerical Cognition Laboratory Numeracy Screener:

<https://www.numeracyscreener.org/home.html>

Formal standardised assessment

- ❖ **Core assessment for maths (4 hours)**
 - Underlying verbal and non-verbal ability
 - Working memory
 - Maths Concepts and Applications
 - Maths Computation
- ❖ **Core Plus assessment for maths and literacy (5 hours)**
 - All above plus single word reading and spelling
- ❖ **Full diagnostic assessment for Dyscalculia (8 hours)**
 - All above plus maths anxiety questionnaire, informal diagnostic assessment of maths, maths fluency, phonological processing – including rapid naming (processing speed)

Recommended Websites

<https://www.numeracyscreener.org/home.html>

[MathsBot.com - Tools for Maths Teachers](#)

[Mathematicsforall](#)

<https://mathsforall.com/wp-content/uploads/2021/04/Visual-Cluster-Cards.pdf>

[youcubed - Inspire ALL Students with Open, Creative Mindset Mathematics](#)

www.stevechinn.co.uk

<https://qa.understood.org/>