SCIL Team Help Sheet

0 – 25 Specialist Teaching and Support Service

How to support pupils with Maths difficulties in the classroom

Why?

Pupils may struggle with Maths for many reasons:

- They may have a specific difficulty (Dyscalculia).
- They may have language difficulties which impact their understanding of maths language and concepts.
- o They may have working memory or sequential memory difficulties.

Maths learning is very sequential, one concept builds on another. All of the above can create gaps in understanding which makes learning new skills extremely difficult. For many pupils, it feels like trying to climb a broken ladder!

Resource Ideas:

- Numicon
- Base Ten (one colour is often best) & Magnetic Base Ten
- Magnetic Numbers
- Objects to Count (same size)
- Cuisenaire Rods

- Two Coloured Counters
- Dice, Dot Patterns Cards, Dominos
- Number Lines, Multiplication Squares
- Five and Ten Frames
- <u>MathsBot</u> (online manipulatives)

How?

- Assess prior skills knowledge before teaching new concepts and provide preteaching where appropriate, e.g. <u>Maths Baseline Assessment</u>.
- Start with real-life examples then move to concrete, pictorial and abstract (CPA).
- Implicitly teach how to use manipulatives to support maths understanding, including the use of online manipulatives (e.g. <u>MathsBot</u>).
- Support pupils to create step-by-step guides (include photos of pupils using manipulatives to learn new procedures).
- Provide a personalised maths toolkit, e.g. number lines, multiplication square (teach pupils to make their own), adapt their toolkit for each topic, as appropriate.







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- Create personalised maths dictionaries with pupils to explore and develop an understanding of maths language and concepts (you could use the Frayer model as a template).
- Ask pupils to explain how they got the answer, their thought processes, and why they approached the task as they did – this will help establish any misconceptions.
- Maths Busy Box with games and activities to consolidate learning: see examples below:







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