Arithmetic and Retrieval: Policy

Procedural knowledge and Recall

Rationale:

Procedural knowledge is an essential part of the curriculum. Time to practice procedures on a regular basis is required to ensure procedural fluency. Further, practice of procedural knowledge supports declarative knowledge, and vice versa.

The programme supports practice of the part whole model within each year group and the 4 operations as well as other areas e.g., fractions. The programme follows White Rose Maths Scheme of Work, bringing back taught concepts approximately 3 weeks after being taught, that is, on the brink of forgetting. Materials are sourced from NCETM's assessment materials and RTPs.

Arithmetic and Retrieval programme: Key Stage 2

Expectation:

The programme takes 15 mins each day. The children have 7 minutes to complete the day's task with the teacher having 8 minutes to model through the answers. Children can tick and fix.

Arithmetic and Retrieval Programme

Core expectation	Key notes
Are instructional approaches systematic, with new content introduced in a logical order, building on what pupils know?	The Arithmetic and Retrieval programme has, • 3 days of arithmetic practice • 2 days of retrieval practise The programme builds over the year initially practising the previous year's content in Autumn 1.
Declarative and Procedural knowledge with conceptual understanding.	The programme provides daily practice of procedures. The procedures in their initial introduction/recall are conceptually supported through pictorial representations.
Do pupils have enough time to rehearse core content, leading to effective and efficient methods?	The four operations are repeatedly in each year group and progress according to the national curriculum expectations.

Research and reading

Ofsted July 2023 - Coordinating mathematical success: the mathematics subject report.

McCrea, P., (2015) Lean Lesson Planning (Deliberate practice)

Boaler, J. (2015) Fluency Without Fear: Research Evidence on the Best Ways to Learn Math Facts. Youcubed at Stanford University