



Addressing KS3 numeracy skills through the Rainbow Arithmetic strategy

NCP17-5a

Overview

This Work Group will address the issue of improving KS3 students' skills in arithmetic methods and understanding of number.

The focus will be to embed successful pedagogical strategies that use the Rainbow Arithmetic resources. Teachers will engage in collaborative planning and trialling of activities in the classroom.

Who is this for?

Schools who recognise their KS3 students basic attainment in number and arithmetic requires developing and who wishing to introduce teachers to the fundamental principles of teaching for mastery.

What is involved?

- 4 workshops (1pm – 5.30pm) focused on the use of Rainbow materials and strategy.
- Gap tasks between the workshops will allow teachers to try out teaching strategies
- There will be an evaluation process focusing on the impact of activities on pupils and the wider department.

Intended Outcomes

- Teachers will gain confidence in designing lessons that incorporate the teaching for mastery principles
- Teachers will develop collaborative planning and reflective skills and have the opportunity to reflect and share their experiences with colleagues
- Pupils confidence and attainment levels in KS3 number skills will be improved
- A resource bank of further materials will begin to be created

The wider context

Many schools face dealing with students demoralised through lack of confidence in fundamental arithmetic skills and number sense. Addressing this issue in key stage 3 has a profound effect on the achievement of these students in KS4.

Many schools do not have an effective strategy for dealing with this issue and some schools often have inexperienced or non-specialist teachers timetabled for these classes.

The Rainbow Arithmetic scheme is a proven strategy to support the development of KS3 arithmetic and has also shown to be a useful vehicle for professional development of teachers.

Expectations of participants and their schools

Schools will need to commit to the release of the same nominated teacher(s) for all four workshops and to support them in the gap tasks.

This will include supporting wider staff engagement with collaborative planning and observation activities between each workshop..

The department will also support the participating teachers to summarise the impact of Work Group participation.

Funding

There will be no charge to participating schools.

Who is leading the Work Group?

The work group will be led by Tim Squire and supported by Pete Sides

The venue for the workshops will be Notre Dame High School, Sheffield

If I'm interested, what next?

Please contact Tim by email to register an interest in engaging with this work group.

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The South Yorkshire Maths Hub website page dedicated to this work group can be found by following this [link here](#)