

Research in Action: Increasing Competence and Confidence in Algebra and Multiplicative Structures (ICCAMS)

Work Group Information Sheet

INV19-02



Overview

The aim of the ICCAMS project is to target misconceptions in algebra and multiplicative structures through discussion, use of multiple representations and lessons designed around maths set in intriguing or realistic contexts.

This Work Group is evidence-informed and the lesson pairs are designed to highlight misconceptions. There is direct support to identify, through formative assessment, what pupils do and do not understand and to develop models and representations to illuminate mathematical structure and to make stronger connections. The activities are set in contexts that pupils can engage with collaboratively.

Who is this for?

All schools teaching pupils in Years 7 and 8 (Key Stage 3).

Those schools with a development priority to:

- improve depth of understanding through the KS3 maths scheme of learning
- strengthen mathematics subject knowledge of the KS3 teaching team
- develop more effective mathematics-specific pedagogy of the KS3 teaching team

What is involved?

This Work Group is comprised of **6** whole day sessions.

- **Session 1:** Monday 11th May 2020 (09:30 – 16:00)
[Harris Federation Head Office](#), 4th Floor, Norfolk House, Wellesley Road, CR0 1LH
- **Session 2:** Tuesday 30th June 2020 (09:30 – 16:00)
[Rosendale Primary School](#), Rosendale Road, West Dulwich, London, SE21 8LR
- **Sessions 3-6:** Academic Year 2020-21. (Dates TBC)

Intended Outcomes

Participants in this project will:

Improve the teaching and learning of algebra & multiplicative reasoning through adoption of the ICCAMS principles, embedded in the lesson guidance.

- Help teachers to use **formative assessment**
- Highlight students' **misconceptions**
- Set maths in **realistic & intriguing problems**
- Use **models & representations** productively
- Make **connections** explicit
- Enable purposeful **dialogue & collaboration**

Expectations of participants and their schools

In general, participants should:

- ✓ Ensure they have support of their school and attend all the workshops.
- ✓ Engage in pre-work group materials and surveys.
- ✓ Engage fully and professionally in the workshop activities.
- ✓ Be mindful to maintain the trust and confidence of the Work Group, understanding the different contexts of each individual participant.
- ✓ Participate in the gap tasks.
- ✓ Maintain the learning journal/reflective log where required.
- ✓ Complete the evaluations required by the Work Group.

Funding

There is no charge for teachers and schools to take part in this Work Group.

Who is leading the Work Group?

Eileen Coan

After running a large mathematics department in Hounslow Eileen spent several years as the Mathematics Adviser for Bromley, then Croydon. She was a Senior Adviser with the secondary National Strategies mathematics team. She currently works as a Curriculum Adviser for the Standards and Testing Authority and is a NCETM PD lead.

If you're interested, what next?

To book your place please visit:

<https://www.londonthamesmathshub.com/event-details/increasing-competence-and-confidence-in-algebraic-and-multiplicative-structures-iccams-session-1-of-6>

For more information please contact:

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