

# Mathematical Thinking for GCSE



## What is Mathematical Thinking?

The Mathematical Thinking for GCSE project is for secondary maths teachers looking for practical and theoretical elements to address their students' GCSE attainment.

The stated aims of the KS4 Programme of Study are that, through working on the content, students should develop mathematical fluency, mathematical reasoning and problem solving. While mathematical thinking is a key feature of all of these, the focus of this Work Group is to support teachers in developing their understanding of mathematical thinking as it relates to problem-solving and reasoning, using practical task types to explore what it means for students to get better at mathematical thinking and what this looks like in the classroom.

## What are the advantages ?

Participants and their schools will:

-  Enhance their mathematical subject knowledge, emphasizing key areas of maths
-  Learn how to establish an effective collaborative planning culture
-  Plan, teach and reflect collaboratively to provide a coherent ,mastery curriculum
-  Continue to refine school structures and systems to embed and sustain mastery
-  Continue to ensure a sustainable model for collaborative planning and ongoing specialist subject knowledge development for all teachers.

## Who can take part?

This is for teachers of KS4 who want to further develop their pedagogical and theoretical understanding of developing mathematical thinking, and practical classroom strategies to explore these ideas. Lead participants will be expected to lead developments from the Work Group in their own department and so should have the opportunity and authority to do this effectively.

Departments that have already engaged with the Work Group have the opportunity to continue with the Work Group structure in order to explore further and think more deeply about supporting mathematical thinking in the classroom by participating in a second 'deepening' year.

## More questions?

Our Secondary Mastery Lead Helen Chambers will be more than happy to discuss this with you, or answer any questions that you may have. Please get in touch to arrange a meeting: [greatnorthmathshub@gmail.com](mailto:greatnorthmathshub@gmail.com)

## How do I register?

 **Please express your interest**

 **[www.greatnorthmathshub.co.uk](http://www.greatnorthmathshub.co.uk)**

 **Mail List**

 **@GNMH\_MathsHub**

