Work Group Purpose

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.

The Work Group is structured around four meetings with school-based tasks for participants to complete and reflect upon between each meeting.

Days One and Four are full days (or equivalent), with Days Two and Three each taking 0.5 days.

If required, there is an opportunity for a Work Group to be supported for a second year in order to work more deeply and creatively with the ideas and strategies developed in Year One.

Mathematical Thinking for GCSE

Exam boards often note that, when students come to GCSE examinations, AO2 and AO3 are frequently poorly addressed.

This Work Group is designed to meet teachers' needs in that it offers both practical and theoretical elements to address a key concern (GCSE attainment).

1. To offer teachers support so that they are better equipped to help all students develop their mathematical thinking, ultimately preparing them for the challenges of the GCSE and beyond.

2. To support teachers in understanding and using participation in a Work Group as the basis of collaborative continued professional development for themselves and within their department.

Mathematical thinking is one of the Five Big Ideas for teaching for mastery and this WG gives further opportunity to support teaching for mastery in secondary schools, while also supporting schools and colleges to address the challenges of teaching GCSE Mathematics, so that all students are prepared for progression to post-16 education.
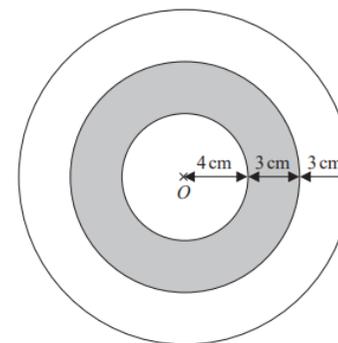
Each circle has centre O.

Daisy says that exactly $\frac{1}{3}$ of the logo is shaded.

Is Daisy correct?
You must show all your working.

Who should apply?

Teachers of KS4 with a wish to further develop their pedagogical and theoretical understanding of what it means to develop mathematical thinking, and practical classroom strategies to explore these ideas. Participants will be expected to begin to lead developments from the Work Group in their own department and so should have the opportunity and authority to do this effectively.

Teachers who have already engaged with the Work Group might like to continue with the WG structure in order to explore further and think more deeply about supporting mathematical thinking in the classroom.

CLICK HERE FOR DATES AND BOOKING

MATHS**HUBS**
ENIGMA