



Self-audit: Strategies for increasing girls' participation in level 3 mathematics

Strategy	Already do this	Could try this	Not right for us right now
Arrange for girls to take part in enrichment events aimed at promoting the opportunities provided by level 3 maths.			
Create displays that promote maths as being a subject for <i>all</i> students. Ensure equal gender representation in displays/resources that provide information about success stories in STEM industries. Try to ensure that a wide range of abilities are represented, so that maths is not perceived as an 'elite' subject.			
Ensure that promotional information about level 3 maths courses makes explicit links to the utility of the subjects for a wide range of future study and career options, including degrees in subjects such as biology, geography and social sciences. Share with parents too.			
Proactively make contact with parents/carers of girls with the potential to take level 3 maths. Research suggests that girls often lack self-belief and are more likely to respond positively to the encouragement of adults such as teachers and parents.			
If using competition as a teaching technique, experiment with team based approaches or competitions that can be completed over an extended time period, rather than focusing on rewarding processing speed. For example, a competition to design a poster that promotes/explains an area of maths.			
Organise lunchtime or afterschool revision/extension groups. Research suggests that girls often prefer the chance to discuss their ideas away from the pressure of a classroom situation in which confident boys may dominate.			
Set up a peer mentoring/tutoring scheme, where students currently taking mathematical level 3 courses can act as role models to students in younger year groups; approach girls to encourage them to participate.			

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<p>Introduce extension material (or even an additional qualification such as the AQA Level 2 Certificate in Further Mathematics) alongside GCSE courses, to enable GCSE students to experience A level style work. Research suggests that all students, but girls in particular, value the opportunity to evaluate their interest and find out how they might cope with a new course before making a commitment.</p>			
<p>Persuade colleagues in quantitative subjects to be explicit with students about the benefits of taking a level 3 maths qualification alongside their subject at A level. Complement this by putting up displays in the Maths Department about the maths used in, for example, A level Psychology.</p>			
<p>Encourage teachers in the Maths Department (and beyond?) to take a test to evaluate their own levels of unconscious bias, to promote self-reflection, inform practice and raise the profile of gender issues. A possible option is a study on implicit association being run by Harvard University (https://implicit.harvard.edu/implicit/takeatest.html).</p>			
<p>Take a look at your data. Analyse the proportion of students with different grades (4+) in GCSE Mathematics who progress to a level 3 maths qualification. Identify the relative participation rate of girls in relation to similar local schools and against the national picture. This can help identify areas for concern and provide incentives for action.</p>			
<p>Talk with Sixth form staff responsible for transition. Look at timetabling and level 3 subject choices of students, do 'girls' subject combinations fit? What messages are being given to students about maths post GCSE? Could you provide up to date advice and guidance?</p>			
<p>Use role models to counteract stereotypes. Invite them into the classroom (could be remotely) or use videos.</p>			
<p>Create a faculty action plan across the year groups. Continuous consistent messaging is more effective than one off interventions</p>			
<p>Appoint a gender champion. Research indicates that whole-school interventions work best in remedying gender inequality in subject choice. Good practice in one department may be negated if gender stereotypes are then enforced in other subjects, in breaktimes, or in extracurricular activities.</p>			

Resources to support you with these strategies can be found at:

<https://amsp.org.uk/teachers/11-16-maths/girls-participation>