



Problem-Solving Schools Charter

Values and ethos

In our setting, it is evident to our students that:

- Mathematical ability is not fixed: everyone can learn and make progress
- Problem solving often involves taking wrong turns and making mistakes: every learner has the right to struggle and the right to enjoy success
- Everyone should have the opportunity to develop the skills and attitudes necessary to become confident problem solvers
- Problem solving can motivate learners to learn new mathematics, apply previous learning and make mathematical connections

Leadership and professional development

In our setting:

- Our staff promote positive attitudes towards problem solving
- Time is set aside to discuss problem solving in our meetings
- Our displays, newsletters, website, and social media content celebrate problem solving for all
- Our monitoring system ensures that priority is given to problem solving and mathematical thinking
- We engage with printed, online and face-to-face professional development opportunities offered by subject organisations

Curriculum, pedagogy and assessment

In our setting:

- We regularly embed non-standard problem-solving opportunities in our maths curriculum for all
- We ensure that problems, and classroom support, offer opportunities for all to experience both struggle and success
- We allocate time to developing key mathematical thinking skills and positive attitudes
- We include non-standard problems in our internal/formative assessments
- We liaise with other subjects so that meaningful cross-curricular links can be made

Classroom culture

In our setting:

- We create a safe environment in which learners explore, take risks, and appreciate the value of learning from their mistakes
- We celebrate multiple approaches to solving problems and discuss the merits of the different strategies offered
- We provide frequent opportunities for individual and collaborative problem solving, where learners are given both thinking time and opportunities to share ideas and insights
- We celebrate the mathematical thinking of every learner

Problem-solving beyond the classroom/school

In our setting:

- We offer school maths club(s) and promote high-quality maths books, ideally stocked by the school library
- We encourage learners to take advantage of printed, online and off-site mathematical enrichment opportunities
- We support parents and carers to engage with problem solving through family homework and in-school events, while recognising that not every adult has had a positive experience of maths
- We encourage learners to appreciate, and learn more about, the achievements of a diverse range of mathematicians