

1. Competencies for Creating a Psychologically Safe Mathematical Environment

- **Normalising struggle** — explicitly framing difficulty as a legitimate and expected part of mathematical learning.
- **Responding non-punitively to errors** — treating mistakes as data, not deficits.
- **Reducing threat cues** — avoiding time pressure, public comparison, or high-stakes questioning that triggers anxiety.
- **Building relational trust** — demonstrating care, consistency, and emotional attunement so learners feel safe taking risks.

2. Competencies for Supporting Productive Struggle

- **Scaffolding challenge** — designing tasks that stretch learners without overwhelming them.
- **Teaching perseverance strategies** — modelling how to break problems down, re-approach tasks, and manage frustration.
- **Monitoring cognitive load** — recognising when learners are in the “growth zone” versus the “panic zone.”
- **Encouraging metacognitive reflection** — helping learners articulate what they tried, why it worked, and what they might try next.

3. Competencies for Reducing Mathematics Anxiety

- **Identifying early signs of anxiety** — noticing avoidance, freezing, self-deprecating talk, or physiological cues.
- **Using de-escalation strategies** — breathing techniques, reframing, slowing pace, or offering alternative entry points.
- **Challenging deficit narratives** — actively disrupting “I’m not a maths person” or “some people just can’t do maths.”
- **Providing predictable routines** — reducing uncertainty that amplifies anxiety.

4. Competencies for Building Beliefs About Mathematical Capability

- **Explicitly teaching growth-aligned beliefs** — emphasising that capability develops through effort, strategies, and support.
- **Highlighting diverse mathematical identities** — showing that mathematicians come from varied backgrounds and pathways.
- **Using attributional feedback** — praising strategy, effort, and reasoning rather than speed or innate ability.
- **Connecting mathematics to personal relevance** — helping learners see mathematics as meaningful to their lives and futures.

5. Competencies for Supporting Help-Seeking and Social Connectedness

- **Teaching help-seeking as a strength** — reframing it as a strategic behaviour rather than a sign of weakness.
- **Structuring collaborative learning** — designing group work that fosters mutual support rather than competition.
- **Building peer-to-peer tutoring cultures** — enabling learners to support each other without hierarchy or shame.
- **Creating shared mathematical narratives** — encouraging learners to talk about their experiences, strategies, and breakthroughs.

6. Competencies for Designing Resilience-Building Tasks and Experiences

- **Selecting tasks with multiple entry points** — ensuring learners can begin without fear of failure.
- **Embedding opportunities for revision and return** — allowing learners to revisit tasks to build a sense of movement and progress.
- **Using low-floor/high-ceiling tasks** — enabling challenge without exclusion.
- **Integrating reflective checkpoints** — helping learners recognise their own growth over time.

7. Competencies for Navigating Institutional and Cultural Narratives

- **Recognising how school structures amplify or reduce anxiety** — assessment practices, pacing, streaming, and classroom norms.
- **Challenging exclusionary narratives** — addressing gendered, socioeconomic, linguistic, or ability-based assumptions.
- **Connecting classroom practice to wider mathematical mobilities** — helping learners see pathways into further study, careers, and everyday mathematical participation.
- **Engaging families and communities** — supporting the circulation of positive mathematical narratives beyond the classroom.

8. Competencies for Reflective and Adaptive Teaching

- **Using formative assessment to adjust challenge** — ensuring learners remain in the growth zone.
- **Reflecting on one's own mathematical identity** — recognising how teacher beliefs shape classroom narratives.
- **Adapting instruction based on learner affect** — modifying pace, grouping, or task structure when anxiety rises.
- **Engaging with professional learning on affective factors** — staying current with research on anxiety, resilience, and belonging.