# Subject report: Endorsement

## Essential Mathematics — 2026 cohort

This resource identifies strengths and opportunities to improve the development and submission of internal assessment instruments for Essential Mathematics. Refer to *QCE and QCIA policy and procedures handbook v7.0*, Section 9.5.

## Summary of endorsement for the 2026 cohort

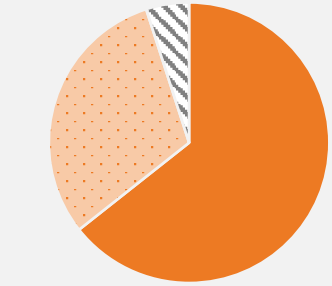
### Number of internal assessment (IA) instruments submitted for endorsement

| IA1 | IA3 | IA4 |
|---|---|---|
| 517 | 518 | 517 |

**Note:** Number of instruments may vary due to changes in schools offering the subject after the endorsement process started.

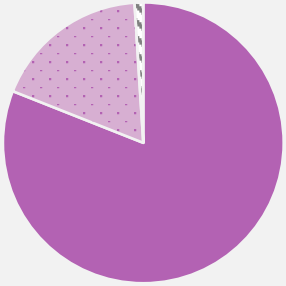
### Percentage of instruments endorsed at Applications 1 and 2

**IA1: Problem-solving and modelling task**



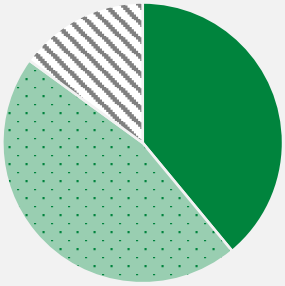
- Application 1: 65%
- Application 2: 31%
- Intervention: 5%

**IA3: Problem-solving and modelling task**



- Application 1: 81%
- Application 2: 18%
- Intervention: 1%

**IA4: Examination — short response**



- Application 1: 39%
- Application 2: 46%
- Intervention: 15%

**Note:** Percentages have been rounded to whole numbers and, therefore, may not add up to 100%.

### Validity: Reasons for non-endorsement at Application 1 by assessment priority

| IA1 | | IA3 | | IA4 | |
|---|---|---|---|---|---|
| Alignment | 26 | Alignment | 17 | Alignment | 192 |
| Authentication | 39 | Authentication | 24 | Authentication | 0 |
| Authenticity | 73 | Authenticity | 23 | Authenticity | 53 |
| Item construction | 69 | Item construction | 26 | Item construction | 78 |
| Scope and scale | 22 | Scope and scale | 20 | Scope and scale | 75 |

### Accessibility: Reasons for non-endorsement at Application 1 by assessment priority

| IA1 | | IA3 | | IA4 | |
|---|---|---|---|---|---|
| Bias avoidance | 1 | Bias avoidance | 0 | Bias avoidance | 3 |
| Language | 3 | Language | 3 | Language | 10 |
| Layout | 1 | Layout | 0 | Layout | 5 |
| Transparency | 6 | Transparency | 1 | Transparency | 14 |

**Note:** A priority may be identified more than once in the endorsement decision for an assessment instrument.

# Advice for assessment design

Endorsement is the quality assurance process based on the attributes of validity and accessibility. The following advice is based on the endorsement process for the 2026 completion year. In acknowledging effective practices and areas for refinement, it offers schools timely and evidence-based guidance to further develop valid and accessible assessment.

## IA1: Problem-solving and modelling task

### Effective practices

Assessment instruments demonstrated validity and accessibility when they:

- included opportunities for students to respond to specific tasks or issues within real-life contexts that demonstrate practical applications of mathematics, such as planning a community garden, renovating a room or designing a swimming pool **(alignment)**
- allowed for unique responses within an authentic context, where appropriate, e.g. the task included individualised sample datasets and/or was sufficiently open-ended, allowing students to decide how to apply mathematical techniques when responding to the task **(authenticity)**
- used bold, italics and other formatting features only where relevant **(layout)**.

### Practices to strengthen

Schools can improve the validity and accessibility of assessment instruments by:

- providing an opportunity for students to independently address all stages of problem-solving and mathematical modelling, ensuring scaffolding does not prescribe specific procedures, concepts or techniques. Instead, use open-ended prompting questions that guide thinking without directing subject matter **(item construction)**
- providing sufficient opportunity for students to use technology appropriate to the task and school context, e.g. spreadsheeting, online calculators **(alignment)**
- ensuring that budgeting is not a major component of the task, while still incorporating relevant real-world cost calculations (e.g. landscaping, painting, concreting) that support accessibility in a measurement-style task **(alignment)**
- providing clear instructions using cues that align with the specifications, objectives and instrument-specific standards, e.g. use simple and complex mathematical procedures **(transparency)**.

## IA3: Problem-solving and modelling task

### Effective practices

Assessment instruments demonstrated validity and accessibility when they:

- provided purposeful and meaningful context that featured a real-world application of mathematics relevant to students **(authenticity)**
- used clear and contextually appropriate language and other textual features, e.g. correct spelling and grammar, appropriately labelled tables and graphs **(language)**
- used appropriate and legible stimulus, images, diagrams and other visual elements that were accessible to all students, e.g. diagrams and images were clear and easy to follow **(bias avoidance)**.

### Practices to strengthen

Schools can improve the validity and accessibility of assessment instruments by:

- providing a sample dataset for the scope and scale of the task to be assessed, so it is clear what data students will access and use to demonstrate their knowledge and understanding of Unit 3 subject matter. While students may undertake some research, it is not the focus of this assessment technique **(scope and scale)**
- ensuring that checkpoints and authentication strategies are suitable and clearly identify when the teacher will provide feedback on one complete or near-complete draft **(authentication)**
- allowing for unique responses within an authentic context, where appropriate, e.g. providing a task that is sufficiently open-ended, allowing students to decide how to apply mathematical techniques when responding **(authenticity)**.

## IA4: Examination — short response

### Effective practices

Assessment instruments demonstrated validity and accessibility when they:

- provided opportunities for students to address all assessable objectives, particularly Objective 4: Evaluate the reasonableness of solutions and Objective 5: Justify procedures and decisions **(alignment)**
- provided the opportunity for students to demonstrate their understanding of the subject matter of all Unit 4 topics **(alignment)**
- provided clear instructions using cues that aligned with the specifications, objectives and instrument-specific standards **(transparency)**
- provided adequate response space for each question **(layout)**.

### Practices to strengthen

Schools can improve the validity and accessibility of assessment instruments by:

- only assessing Unit 4 subject matter as specified in the syllabus, ensuring alignment with required content, e.g. excluding Unit 3 topics such as probability **(scope and scale)**
- allocating simple familiar marks only to questions addressing simple subject matter, e.g. reserving [complex] subject matter such as interpolation or non-annual compound interest for complex familiar and/or complex unfamiliar marks **(alignment)**
- allocating complex unfamiliar marks to questions that align with the specifications of complex unfamiliar questions, e.g. all the information to solve the problem is not immediately identifiable **(alignment)**
- ensuring that assessment instruments are free from errors and model accurate spelling, grammar, punctuation and other textual features **(language)**.

# Additional advice

- Schools should ensure that they upload stimulus materials for IA1 and IA3 if they have indicated in the task section that stimulus material is attached.
- Before submitting an IA4 instrument for endorsement, schools should review the length to ensure students can complete the assessment in 60 minutes of working time.
- Schools are encouraged to review and, where appropriate, update the IA4 marking scheme before submitting the assessment instrument at Application 2 or intervention.