

# Years 5–6 assessment techniques and conditions

## Mathematics

This document outlines assessment techniques and response conditions to achieve range and balance within an assessment program. Schools consider the local context, and the age and capabilities of the students, when selecting appropriate assessment techniques and response conditions.

Techniques	Project — Problem-solving and modelling task	Test
<b>Description</b>	<p>A problem-solving and modelling task assesses students' abilities to respond to a specific scenario or situation that highlights a real-life application of mathematics. It is an assessment developed in response to a mathematical investigative scenario or context.</p> <p>A problem-solving and modelling task requires students to:</p> <ul style="list-style-type: none"> <li>• interpret and compare (Year 6) information and data</li> <li>• identify and describe</li> <li>• explain relationships to develop and support mathematical arguments</li> <li>• reflect on and evaluate data, propositions, results and conclusions</li> <li>• communicate ideas.</li> </ul> <p>Students typically work on guided problem-solving and modelling tasks. The teacher influences the concepts and techniques chosen, and/or the model students use to solve the problem. The teacher provides guidance, and all stages of the problem-solving and modelling approach are used.</p>	<p>A test assesses students' responses that are produced independently, under supervised conditions and in a set timeframe. A test ensures student authorship.</p> <p>A test requires students to respond to one or more assessment items. These items are based on questions or tasks that are typically unseen. Questions or tasks may be based on stimulus material.</p>
<b>Formats</b> (examples only)	<p>Formats include:</p> <ul style="list-style-type: none"> <li>• written               <ul style="list-style-type: none"> <li>– feasibility study</li> <li>– proposal, e.g. to a company or organisation</li> <li>– report</li> <li>– journal</li> <li>– brochure</li> <li>– graphic organiser</li> <li>– investigation</li> </ul> </li> </ul>	<p>Formats include:</p> <ul style="list-style-type: none"> <li>• short response items               <ul style="list-style-type: none"> <li>– calculating using algorithms</li> <li>– drawing, labelling or interpreting graphs, tables or diagrams</li> <li>– single word, term, true/false, multiple choice, sentence or short paragraph responses</li> <li>– justifying solutions using appropriate mathematical language where applicable</li> <li>– interpreting ideas and information</li> </ul> </li> <li>• extended response items</li> </ul>



Techniques	Project — Problem-solving and modelling task	Test
	<ul style="list-style-type: none"> <li>- peer and self-reflections</li> <li>• spoken/signed or multimodal               <ul style="list-style-type: none"> <li>- presentation</li> <li>- virtual model or simulation</li> </ul> </li> <li>• practical               <ul style="list-style-type: none"> <li>- mathematical investigation or experiment</li> <li>- field activity</li> <li>- construction of 2D or 3D models.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- constructing, describing, using, comparing, evaluating or interpreting data, graphs, tables or diagrams</li> <li>• response to stimulus.</li> </ul>
Conditions	<p>Suggested length:*</p> <ul style="list-style-type: none"> <li>• written responses 200–400 words</li> <li>• spoken/signed or multimodal responses 1–2 minutes.</li> </ul>	<p>Suggested time:</p> <ul style="list-style-type: none"> <li>• up to 60 minutes, plus 5 minutes perusal               <ul style="list-style-type: none"> <li>- the number of short response items should allow students to complete the response in the set time.</li> </ul> </li> </ul> <p>Suggested length:*</p> <ul style="list-style-type: none"> <li>• 200–400 words (in total)               <ul style="list-style-type: none"> <li>- short response 25–50 words per item.</li> </ul> </li> </ul>

Notes
Responses can be written, spoken/signed or multimodal (integrating visual, print and/or audio features), recorded or live and may be presented digitally.
*Length of student responses should be considered in the context of the assessment. Longer responses do not necessarily provide better quality evidence of achievement.

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