

Years 3–4 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
Description	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.	A test assesses students' responses that are produced independently, under supervised conditions and in a set timeframe. A test ensures student authorship.
	<p>A problem-solving and modelling task requires students to:</p> <ul style="list-style-type: none"> • interpret information and data • recall facts • model and represent (Year 3), and identify and describe (Year 4) • recognise and explore relationships to develop and support mathematical arguments • evaluate data (Year 4) • communicate ideas. <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>	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.
Formats (examples only)	<p>Formats include:</p> <ul style="list-style-type: none"> • written <ul style="list-style-type: none"> – brochure – graphic organiser, e.g. Venn diagram, graph, table, flow chart – creating a map with directions – investigation – peer and self-reflections 	<p>Formats include:</p> <ul style="list-style-type: none"> • short response items <ul style="list-style-type: none"> – calculating using algorithms – drawing, labelling or interpreting graphs, tables or diagrams – single word, term, true/false, multiple choice, sentence or short paragraph responses – justifying solutions using appropriate mathematical language where



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	<ul style="list-style-type: none"> spoken/signed or multimodal <ul style="list-style-type: none"> – presentation – role play practical <ul style="list-style-type: none"> – mathematical investigation or experiment – field activity – construction of 2D or 3D models. 	<ul style="list-style-type: none"> applicable <ul style="list-style-type: none"> – interpreting ideas and information response to stimulus.
Conditions	<p>Suggested length:*</p> <ul style="list-style-type: none"> written responses 100–200 words spoken/signed or multimodal responses up to 1 minute. 	<p>Suggested time:</p> <ul style="list-style-type: none"> up to 40 minutes, plus 5 minutes perusal <ul style="list-style-type: none"> – the number of short response items should allow students to complete the response in the set time. <p>Suggested length:*</p> <ul style="list-style-type: none"> 100–200 words (in total) <ul style="list-style-type: none"> – short response 15–50 words per item.

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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