

Prep–Year 2 assessment techniques and conditions v1.0

Science

This document outlines assessment techniques and 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 conditions.

Techniques	Investigation	Experimental investigation	Test
Description	An investigation assesses students' abilities to describe (Prep), predict and record conclusions (Years 1–2) about secondary data and information.	An experimental investigation assesses students' abilities to investigate a hypothesis or answer practical research questions.	A test assesses students' responses that are produced independently, under supervision and in a set timeframe. A test assesses a selection of subject matter that accurately reflects the intended learning of the topic.
	An investigation is guided and requires students to use data or information that they have been given and the knowledge they currently have.	<p>An experimental investigation is guided and requires students to follow instructions to investigate a constructed question and/or problem. The focus is on planning an experimental investigation and problem-solving with teacher guidance. Experiments may be conducted in the classroom or field.</p> <p>An experimental investigation is based on research practices and requires students to:</p> <ul style="list-style-type: none"> • record observations • explore and answer questions • represent, reflect on, share and compare their ideas. <p>An experimental investigation follows an inquiry approach that aligns to the Science Inquiry Skills strand for a year level.</p>	<p>A test is guided and 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> <p>A test may be administered over several sessions if this suits the intent of the assessment or to reflect the needs of the learners.</p>

Techniques	Investigation	Experimental investigation	Test
Formats (examples only)	Formats include: <ul style="list-style-type: none"> • report • graphic organisers e.g. Venn diagram, graph, table, flow chart, data gathered on a field trip • science journal including annotated diagrams • presentation, e.g. interview. 	Formats include: <ul style="list-style-type: none"> • practical demonstrations • model building • science journal (record of investigation) involving: <ul style="list-style-type: none"> – setting up – making observations – gathering and analysing data • poster to represent experiment. 	Formats include: <ul style="list-style-type: none"> • short response items <ul style="list-style-type: none"> – cloze, true/false, single-word, term, multiple-choice, sentence or short-paragraph responses – practical exercises – demonstrations – drawing, labelling or interpreting pictures, diagrams or text – explaining information using appropriate scientific language where applicable • response to stimulus.
	Observation may be used to record evidence of the students' knowledge and understanding in Science. It can be used across all assessment techniques. An observation record is evidence of student learning gathered by a teacher in digital and/or written formats.		
Conditions	<p>There are no recommended times or lengths for responses.</p> <p>Length of student responses should be considered in the context of the assessment. Longer responses do not necessarily provide better quality evidence of achievement.</p> <p>Responses can be written, spoken/signed or multimodal (integrating visual, print and/or audio features), recorded or live and may be presented digitally.</p> <p>Student responses may be scribed to reduce the literacy demands of the assessment. Prompts may also be provided to support students to complete assessment, however:</p> <ul style="list-style-type: none"> • scribing or prompting should not compromise the purpose of the technique or change the way the assessment is judged or marked • details of the support must be provided on the student response. <p>Questions or instructions can be read to students in whole class, group or individual situations.</p>		

Notes
All practical work must be organised with student safety in mind. Information on creating safe and healthy school environments, along with current work health and safety laws, is available at the Queensland Department of Education website. Schools must ensure their practices meet current guidelines.