

Years 9–10 assessment techniques and conditions

Science

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

	Techniques		
	Investigation	Experimental investigation	Examination
Description	focuses on researching a specific problem, question, issue, or hypothesis through the selection, collection, analysis and/or interpretation of data, sources or information which may result in conclusions. It uses research, investigative practices, or processes in a particular context and occurs over an extended period of time.	focuses on experimenting to generate, then analyse primary data.	focuses on responding independently to seen or unseen assessment item/s under supervised conditions and in a set time frame. Assessment item/s may include question/s, scenario/s, and/or problem/s.
Learning area advice	Students construct logical arguments based on a variety of scientific evidence, to support conclusions and evaluate claims. Research conventions must be followed, including addressing ethical and intercultural considerations when generating or using primary or secondary data.	Students plan and conduct safe, valid and reproducible investigations to test relationships or develop explanatory models. Experiments [^] may be conducted in the classroom, field, or by computer-generated simulations.	Students respond to assessment items using scientific data and/or information. Note: <ul style="list-style-type: none"> • Seen stimulus should be provided with sufficient time for students to adequately engage with the materials prior to the examination. • Unseen stimulus should not have been directly used in class.

				Techniques		
				Investigation	Experimental investigation	Examination
Mode				written, spoken/signed or multimodal	written, spoken/signed or multimodal including practical^ demonstration	written
Examples				<p>Examples may include:</p> <ul style="list-style-type: none"> • written <ul style="list-style-type: none"> – report – news article • spoken/signed or multimodal <ul style="list-style-type: none"> – interview – debate – seminar. 	<p>Examples may include:</p> <ul style="list-style-type: none"> • written <ul style="list-style-type: none"> – scientific report – article for science journal – record of investigations, including set-up, observations, data gathering and analysis, e.g. establishing and maintaining an aquaculture system – section of a scientific report, e.g. focusing on modelling and analysing data and information • spoken/signed or multimodal <ul style="list-style-type: none"> – practical demonstration – scientific phenomena modelling – academic poster. 	<p>Examples may include:</p> <ul style="list-style-type: none"> • short response items <ul style="list-style-type: none"> – single word, true/false, multiple choice or sentence answer – paragraph/s response (standalone or linked to stimulus) • extended response items <ul style="list-style-type: none"> – explanation longer than one sentence, up to several paragraphs – practical exercise and/or calculation – construction, use, interpretation or analysis of primary or secondary data, graphs, tables or diagrams – application of algorithms or demonstration of mathematical calculations and problem-solving – response to stimulus.
Conditions				<p>Suggested length:*</p> <ul style="list-style-type: none"> • written responses 600–800 words • spoken/signed responses 2–3 minutes. 	<p>Suggested length:*</p> <ul style="list-style-type: none"> • written responses 600–800 words • spoken/signed responses 2–3 minutes • practical demonstration as negotiated. 	<p>Suggested time:</p> <ul style="list-style-type: none"> • up to 90 minutes, plus 10 minutes planning, under supervised conditions. <p>Suggested length:*</p> <ul style="list-style-type: none"> • up to 400 words.

* Length of student responses should be considered in the context of the assessment. Longer responses do not necessarily provide better quality evidence of achievement.

^ All practical work/experiments must be organised with student safety in mind. Schools must ensure their practices meet current guidelines.



© State of Queensland (QCAA) 2023

Licence: <https://creativecommons.org/licenses/by/4.0> | **Copyright notice:** www.qcaa.qld.edu.au/copyright — lists the full terms and conditions, which specify certain exceptions to the licence. | **Attribution** (include the link): © State of Queensland (QCAA) 2023 www.qcaa.qld.edu.au/copyright.

Unless otherwise indicated material from the Australian Curriculum is © ACARA 2010–present, licensed under CC BY 4.0. For the latest information and additional terms of use, please check the [Australian Curriculum website](#) and its [copyright notice](#).