Physics Assessment 1: Reflective Laboratory Log

Student marking rubric

Assessment component	Reflective Laboratory Log (portfolio)
Portfolio size	Approximately 2,000 words equivalent
Total marks	100
Assessment set	Sample 2026

How the complete log is marked

Your work is judged holistically against AO2 and AO3. The grade boundaries shown are assessment bands; they are not degree classifications and are not separate marks for individual entries.

Read across AO2 and AO3. One holistic best-fit band and raw percentage is awarded for the complete log; teacher observation is supporting evidence and is not separately weighted.

Performance level	Mark range / anchors	AO2 · Application, practice and data **Holistic** Applies physics knowledge in practical contexts; plans and conducts work safely; records, processes and interprets data; identifies error and justifies improvements.	AO3 · Analysis, evaluation and reflection **Holistic** Explains and applies physics principles; interprets experimental evidence; relates theory to context; makes supported judgements; communicates procedures, results and conclusions clearly and accurately.
A*	**80-100**	• Apply comprehensive physics knowledge with exceptional precision and independence in unfamiliar practical contexts; design and conduct work judiciously and safely; process and interpret complex data accurately; evaluate uncertainty and justify well-targeted improvements.	• Integrate fundamental physics principles with experimental evidence to produce perceptive, well-supported interpretations and judgements; evaluate alternative explanations and limitations; communicate procedures, results and conclusions with exceptional clarity and precision.
A	**70-79**	• Apply thorough and comprehensive physics knowledge consistently in practical contexts; plan and conduct work judiciously and safely; record, process and interpret data accurately; identify error and justify improvements.	• Precisely explain and apply fundamental physics principles; interpret experimental evidence, relate theory to context, make well-supported judgements and communicate procedures, results and conclusions clearly and accurately.
B	**60-69**	• Apply a wide and deep knowledge of physics with competence and precision; plan and conduct practical work safely; record, process and interpret data accurately to reach informed conclusions.	• Explain and apply physics principles; draw inferences and predict outcomes from data; relate theory to real situations and communicate practical procedures, results and conclusions reliably using accurate terminology.

Performance level	Mark range / anchors	AO2 · Application, practice and data **Holistic** Applies physics knowledge in practical contexts; plans and conducts work safely; records, processes and interprets data; identifies error and justifies improvements.	AO3 · Analysis, evaluation and reflection **Holistic** Explains and applies physics principles; interprets experimental evidence; relates theory to context; makes supported judgements; communicates procedures, results and conclusions clearly and accurately.
C	**50-59**	• Apply knowledge clearly in familiar practical contexts; use appropriate physics equipment, including oscilloscopes, multimeters and data loggers competently; maintain appropriate conditions and record, process and interpret data to draw conclusions.	• Draw valid inferences from data, relate physics concepts to some applications and explain complex ideas clearly using generally accurate scientific terminology.
D	**40-49**	• Attempt to apply knowledge in practical contexts; use equipment safely, manage conditions and usually record, process and interpret data to inform possible conclusions.	• Attempt reasonable inferences from data and links to real applications; explain some complex ideas and sometimes use appropriate scientific terminology.
E	**30-39**	• Show some practical knowledge and apply it with guidance; work safely and sometimes record, process and interpret data.	• Show awareness of possible interpretations of data; attempt to explain some processes and concepts and use some appropriate scientific terminology.
U	**0-29**	• Show insufficient evidence of safe, meaningful practical application or data handling.	• Show only limited awareness of physics concepts, evidence and scientific processes, with insufficient analysis or evaluation for a pass.