Think Science! Judging Rubric for Years 7-10

This is a small team (2 - 4 individuals) event. Teams submit a short, creatively presented video 4 - 5 minutes long, showcasing a first-hand science investigation.
Videos exceeding 5 minutes in length will not qualify for judging.

Science Inquiry skill	Developing	Competent	Excelling
Questioning and predicting	• states a question and/or aim that is not clear • presents some background information • proposes an hypothesis	• states a clear, scientifically testable question and/or aim • summarises some relevant scientific concepts that underlie the topic being investigated • proposes a testable hypothesis	• states a clear, scientifically testable question and/or aim involving variables being investigated • summarises the context and relevant scientific concepts that underlie the topic being investigated • proposes a testable hypothesis which is supported by the research
Planning and conducting	• considers some safety concerns • identifies the independent and dependent variables, and attempts to identify variables to be controlled • outlines an experimental procedure • includes photos or video of the experimental set-up	• identifies risks and any ethical concerns, and describes safety measures taken • Identifies the independent and dependent variables and describes how they are measured, and identifies and controls other variables • describes a logical, valid and reproducible experimental procedure, that uses appropriate equipment • includes relevant photos or video of the experimental set-up and the performance of the investigation	• describes risks and any ethical concerns and explains the safety measures taken • identifies the independent and dependent variables and describes how they are measured, and explains the measures taken to control each of the other variables • describes a logical, valid and reproducible experimental procedure, that uses appropriate equipment, and ensures accurate and reliable measurements • includes relevant photos or video that show the experimental set-up, and clearly demonstrate how the equipment was used in performing the investigation
Processing, modelling and analysing	• creates a table to display relevant observations and measurements • uses a further representation of results, including diagrams, photos, graphs	• creates an appropriately labelled table to display relevant observations and accurate measurements with calculated means • uses further appropriate representation to display results, including diagrams, photos, graphs, models, mathematical relationships	• creates a well-organised and appropriately labelled table to display relevant observations and comprehensive accurate measurements with calculated means • uses further appropriate representation to clearly display results, including diagrams, photos, graphs, models, mathematical relationships

Science Inquiry skill	Developing	Competent	Excelling
	• identifies patterns and trends in data	• describes patterns, trends and relationships in data, and identifies anomalies	• comprehensively describes patterns, trends and relationships in data, and identifies anomalies
Evaluating	• relates an observed pattern, trend or relationship in results to a relevant science concept or theory • identifies a real-life situation related to the investigation findings or states a relevant testable question for further investigation • identifies a possible source of error or assumption in the investigation and suggests a modification to the investigation • formulates a conclusion that is supported by results	• explains the results using relevant science and scientific concepts • describes a real-life situation related to the investigation findings and suggests a relevant testable question for further investigation • reflects on possible sources of error and assumptions in the investigation and suggests some valid improvements to the investigation • formulates a clear conclusion that is supported by results, and relates it to the hypothesis	• comprehensively explains the results using relevant science and scientific concepts • explains how the investigation findings are relevant to the real world and suggests relevant testable questions for further investigation • reflects critically on the investigation and possible sources of error and assumptions, and proposes some valid improvements to the investigation • formulates a clear, precise conclusion that is supported by results, and relates it to the hypothesis
Communicating	• presenters generally heard and understood • text, graphs, photos and videos are clear, and large enough to be seen. • presentation showcases some parts of their investigation and is significantly shorter or longer than 5 min	• all presenters can be clearly heard and understood, and speak at a comfortable speed with minimum background noise • text, graphs, photos and videos are clear and large enough to be easily seen, with sufficient time for viewing. • presentation is well-sequenced and engaging, showcases all parts of their investigation and is between 4 and 5 min in length	• all presenters can be clearly heard and understood, speak at a comfortable speed with minimum background noise, and maintain good eye contact with the audience • Concise text, relevant graphs, photos and videos are clear and large enough so all details can be easily seen with sufficient time for viewing • presentation is well-sequenced and engaging, showcases all parts of their investigation, is between 4 and 5 mins in length, and is creatively produced

Rubric content follows the Australian Curriculum v9, 2022