

Queensland Quantum Challenge – Judging Criteria

Years 9-10

In **3 to 5 minutes**, produce a short video to explain how an emerging quantum technology can provide opportunities or address a problem in Queensland.

Criteria	Years 9-10								
Effective Communication and Presentation	<ul style="list-style-type: none"> Communicates complex ideas with clarity and creativity. Uses persuasive language and references in presentation to enhance credibility. Visual and audio elements are seamlessly integrated to captivate and engage the audience. Stays within time constraints. 			<ul style="list-style-type: none"> Communicates ideas clearly and appropriately, with some references. Visual and audio elements are present and support the message, though they may not be fully integrated or impactful. Slightly outside of time constraints. 			<ul style="list-style-type: none"> Communicates ideas in a basic manner with minimal references. Visual and audio elements are minimal or present but do not significantly enhance the message. Exceedingly outside of time constraints. 		
	8	7	6	5	4	3	2	1	0
Informed and Responsible Decision-Making	<ul style="list-style-type: none"> Thoughtfully engages with contemporary issues, showing clear evidence of informed and responsible decision-making. Considers ethical as well as environmental, social, and/or economic implications with problems and solutions. 			<ul style="list-style-type: none"> Engages with contemporary issues and shows some evidence of responsible decision-making. Considers one or two broader implications on problems and solutions but may not explore them in depth. 			<ul style="list-style-type: none"> Engages with contemporary issues at a surface level. Shows limited evidence of decision-making or consideration of broader implications and solutions. 		
	8	7	6	5	4	3	2	1	0
Knowledge and Application	<ul style="list-style-type: none"> Demonstrates a dynamic understanding of relevant concepts and processes. Effectively applies knowledge to explain phenomena and predict outcomes. Thoughtfully connects knowledge with career pathways. 			<ul style="list-style-type: none"> Demonstrates a sound understanding of concepts and processes. Applies knowledge to familiar situations. Connects ideas with career pathways. 			<ul style="list-style-type: none"> Demonstrates a basic understanding of concepts. Applies knowledge in a limited way. Limited connection with career pathways. 		
	8	7	6	5	4	3	2	1	0
Inquiry Skills	<ul style="list-style-type: none"> Shows curiosity, passion for discovery and innovation. Develops thoughtful, well-structured questions to investigate complex issues. Uses relevant and significant information from a range of sources Organises and processes data effectively using graphs, tables, models, and/or mathematical relationships. 			<ul style="list-style-type: none"> Shows some curiosity and develops questions to investigate issues and identifies some relevant information. Provides relevant information from sources. Organises data using basic representations, such as graphs or tables, to support findings. 			<ul style="list-style-type: none"> Develops simple questions and identifies limited information demonstrating minimal curiosity. Organises data in a basic way, with minimal use of graphs, tables, or other representations. 		
	8	7	6	5	4	3	2	1	0
Generating Solutions	<ul style="list-style-type: none"> Proposes innovative and logical solutions by connecting and adapting complex ideas. Evaluates alternatives thoughtfully. Revises approaches as needed, and constructs evidence-based arguments. Addresses assumptions and uncertainties effectively. 			<ul style="list-style-type: none"> Proposes well-considered solutions and evaluates an alternative. Constructs arguments supported by evidence Addresses assumptions or uncertainties. 			<ul style="list-style-type: none"> Proposes simple solutions with limited evaluation of alternatives. Constructs arguments with minimal evidence and does not address assumptions or uncertainties. 		
	8	7	6	5	4	3	2	1	0

Queensland Quantum Challenge – Judging Criteria

Year 11

In **5 to 7 minutes**, produce a short video to explain how an emerging quantum technology can provide opportunities or address a problem in Queensland.

Criteria	Year 11								
Effective Communication and Presentation	<ul style="list-style-type: none"> Communicates complex ideas with clarity and creativity to engage with a range of audiences. Uses persuasive language and references in presentation to enhance credibility. Visual and audio elements are seamlessly integrated to captivate and engage the audience. Stays within time constraints. 			<ul style="list-style-type: none"> Communicates ideas clearly and appropriately, with some sources for credibility. Visual and audio elements are present and support the message, though they may not be fully integrated or impactful. Slightly outside of time constraints. 			<ul style="list-style-type: none"> Communicates ideas in a basic manner with minimal references. Visual and audio elements are minimal or present but do not significantly enhance the message. Exceedingly outside of time constraints. 		
	8	7	6	5	4	3	2	1	0
Informed and Responsible Decision-Making	<ul style="list-style-type: none"> Thoughtfully engages with contemporary issues, showing clear evidence of informed and responsible decision-making. Considers ethical as well as environmental, social, and/or economic implications on local and global levels. 			<ul style="list-style-type: none"> Engages with contemporary issues and shows some evidence of responsible decision-making. Considers one or two broader but may not explore them in depth. 			<ul style="list-style-type: none"> Engages with contemporary issues at a surface level. Shows limited evidence of decision-making or consideration of broader implications. 		
	8	7	6	5	4	3	2	1	0
Knowledge and Application	<ul style="list-style-type: none"> Demonstrates a deep and dynamic understanding of relevant concepts and processes. Effectively applies knowledge to explain phenomena and predict outcomes. Thoughtfully connects knowledge with career pathways. 			<ul style="list-style-type: none"> Demonstrates a sound understanding of concepts and processes. Applies knowledge to familiar situations. Connects ideas with career pathways. 			<ul style="list-style-type: none"> Demonstrates a basic understanding of concepts. Applies knowledge in a limited way. Limited connection with career pathways. 		
	8	7	6	5	4	3	2	1	0
Inquiry Skills	<ul style="list-style-type: none"> Shows curiosity and passion for discovery and innovation. Develops thoughtful, well-structured questions to investigate complex issues. Provides relevant and significant information from a range of sources. Organises and processes data effectively using graphs, tables, models, and/or mathematical relationships. 			<ul style="list-style-type: none"> Shows some curiosity and develops questions to investigate issues. Provides relevant information from sources. Organises data using basic representations, such as graphs or tables, to support findings. 			<ul style="list-style-type: none"> Develops simple questions and identifies limited information demonstrating minimal curiosity. Organises data in a basic way, with minimal use of graphs, tables, or other representations. 		
	8	7	6	5	4	3	2	1	0
Generating Solutions	<ul style="list-style-type: none"> Proposes innovative and logical solutions by connecting and adapting complex ideas demonstrating reasoning, intellectual flexibility, and creativity. Evaluates alternatives thoughtfully. Revises approaches as needed, and constructs evidence-based arguments. Addresses assumptions and uncertainties effectively. 			<ul style="list-style-type: none"> Proposes well-considered solutions and evaluates an alternative. Constructs arguments supported by evidence Addresses assumptions or uncertainties. 			<ul style="list-style-type: none"> Proposes simple solutions with limited evaluation of alternatives. Constructs arguments with minimal evidence and does not address assumptions or uncertainties. 		
	8	7	6	5	4	3	2	1	0