

Qubits Explained: Quantum Computing Rubric

Anonymous ID: _____ Scored By: _____ Total Score: _____/60

<u>Category</u>	0	1	2	3	<u>Weight</u>
Infographic Content: Quantum Basics	None of the following are true: - The difference between a qubit and a classical bit is clearly explained. - At least three quantum concepts (superposition, entanglement, interference, measurement, or decoherence) are explained. - All information provided is accurate.	One of the following is true or all are somewhat true: - The difference between a qubit and a classical bit is clearly explained. - At least three quantum concepts (superposition, entanglement, interference, measurement, or decoherence) are explained. - All information provided is accurate.	Two of the following are true or all are mostly true: - The difference between a qubit and a classical bit is clearly explained. - At least three quantum concepts (superposition, entanglement, interference, measurement, or decoherence) are explained. - All information provided is accurate.	All of the following are true and well done: - The difference between a qubit and a classical bit is clearly explained. - At least three quantum concepts (superposition, entanglement, interference, measurement, or decoherence) are explained. - All information provided is accurate.	x3
Infographic Content: How Quantum Computers Are Built	None of the following are true: - At least two ways scientists build qubits are described. - Why quantum computers need special conditions (such as extreme cold or isolation) is explained. - All information provided is accurate.	One of the following is true or all are somewhat true: - At least two ways scientists build qubits are described. - Why quantum computers need special conditions (such as extreme cold or isolation) is explained. - All information provided is accurate.	Two of the following are true or all are mostly true: - At least two ways scientists build qubits are described. - Why quantum computers need special conditions (such as extreme cold or isolation) is explained. - All information provided is accurate.	All of the following are true and well done: - At least two ways scientists build qubits are described. - Why quantum computers need special conditions (such as extreme cold or isolation) is explained. - All information provided is accurate.	x2

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Infographic Content: Applications and Limits	None of the following are true: - At least three real-world application areas are described. - At least one common misconception about quantum computing is addressed. - All information provided is accurate and does not overstate what quantum computers can do today.	One of the following is true or all are somewhat true: - At least three real-world application areas are described. - At least one common misconception about quantum computing is addressed. - All information provided is accurate and does not overstate what quantum computers can do today.	Two of the following are true or all are mostly true: - At least three real-world application areas are described. - At least one common misconception about quantum computing is addressed. - All information provided is accurate and does not overstate what quantum computers can do today.	All of the following are true and well done: - At least three real-world application areas are described. - At least one common misconception about quantum computing is addressed. - All information provided is accurate and does not overstate what quantum computers can do today.	x2
Infographic Content: Quantum Research in the USA	None of the following are true: - Quantum computing research in the United States is highlighted. - Why this research matters is clearly explained. - All information provided is accurate and current.	One of the following is true or all are somewhat true: - Quantum computing research in the United States is highlighted. - Why this research matters is clearly explained. - All information provided is accurate and current.	Two of the following are true or all are mostly true: - Quantum computing research in the United States is highlighted. - Why this research matters is clearly explained. - All information provided is accurate and current.	All of the following are true and well done: - Quantum computing research in the United States is highlighted. - Why this research matters is clearly explained. - All information provided is accurate and current.	x2
Supporting Document	None of the following are true: - The supporting document addresses all four content areas from the infographic. - The supporting document expands upon/clarifies topics from the infographic. - The information is accurate, unbiased, and sufficient.	One of the following is true or all are somewhat true: - The supporting document addresses all four content areas from the infographic. - The supporting document expands upon/clarifies topics from the infographic. - The information is accurate, unbiased, and sufficient.	Two of the following are true or all are mostly true: - The supporting document addresses all four content areas from the infographic. - The supporting document expands upon/clarifies topics from the infographic. - The information is accurate, unbiased, and sufficient.	All of the following are true and well done: - The supporting document addresses all four content areas from the infographic. - The supporting document expands upon/clarifies topics from the infographic. - The information is accurate, unbiased, and sufficient.	x3

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Infographic Accessibility	None of the following are true: - Infographic is user friendly and accessible to a general audience with no physics background. - Infographic is informative. - Infographic is laid out in a logical, easy to follow and understand manner.	One of the following is true or all are somewhat true: - Infographic is user friendly and accessible to a general audience with no physics background. - Infographic is informative. - Infographic is laid out in a logical, easy to follow and understand manner.	Two of the following are true or all are mostly true: - Infographic is user friendly and accessible to a general audience with no physics background. - Infographic is informative. - Infographic is laid out in a logical, easy to follow and understand manner.	All of the following are true and well done: - Infographic is user friendly and accessible to a general audience with no physics background. - Infographic is informative. - Infographic is laid out in a logical, easy to follow and understand manner.	x3
Creativity	None of the following are true: - Infographic is creative. - Infographic is unique. (Has not been done by another student; does not exist on the market.) - Infographic has a “wow” factor.	One of the following is true or all are somewhat true: - Infographic is creative. - Infographic is unique. (Has not been done by another student; does not exist on the market.) - Infographic has a “wow” factor.	Two of the following are true or all are mostly true: - Infographic is creative. - Infographic is unique. (Has not been done by another student; does not exist on the market.) - Infographic has a “wow” factor.	All of the following are true and well done: - Infographic is creative. - Infographic is unique. (Has not been done by another student; does not exist on the market.) - Infographic has a “wow” factor.	x2
Citations and AI Disclosure	One or none of the following are true: - Sources are properly cited in APA format in the supporting document. - Footnotes are utilized in the infographic to cite sources. - All sources used are reliable and credible and support student research. - An AI use statement is included; any AI tools used are cited in APA format and AI-generated images are labeled.	Two of the following are true or all are somewhat true: - Sources are properly cited in APA format in the supporting document. - Footnotes are utilized in the infographic to cite sources. - All sources used are reliable and credible and support student research. - An AI use statement is included; any AI tools used are cited in APA format and AI-generated images are labeled.	Three of the following are true or all are mostly true: - Sources are properly cited in APA format in the supporting document. - Footnotes are utilized in the infographic to cite sources. - All sources used are reliable and credible and support student research. - An AI use statement is included; any AI tools used are cited in APA format and AI-generated images are labeled.	All of the following are true and well done: - Sources are properly cited in APA format in the supporting document. - Footnotes are utilized in the infographic to cite sources. - All sources used are reliable and credible and support student research. - An AI use statement is included; any AI tools used are cited in APA format and AI-generated images are labeled.	x2

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General	One or none of the following are true: - Submission is free of grammar and spelling errors. - The infographic and supporting document are organized. - The infographic and supporting document are concise and clear. - The supporting document follows format requirements (3–5 pages, 12-point font, double-spaced).	Two of the following are true or all are somewhat true: - Submission is free of grammar and spelling errors. - The infographic and supporting document are organized. - The infographic and supporting document are concise and clear. - The supporting document follows format requirements (3–5 pages, 12-point font, double-spaced).	Three of the following are true or all are mostly true: - Submission is free of grammar and spelling errors. - The infographic and supporting document are organized. - The infographic and supporting document are concise and clear. - The supporting document follows format requirements (3–5 pages, 12-point font, double-spaced).	All of the following are true and well done: - Submission is free of grammar and spelling errors. - The infographic and supporting document are organized. - The infographic and supporting document are concise and clear. - The supporting document follows format requirements (3–5 pages, 12-point font, double-spaced).	x1

Eligibility Check

Do not score an entry that fails any of these checks.

- ☐ Both an infographic and a supporting document were submitted by the deadline.
- ☐ Citations are included.
- ☐ AI use is disclosed. Entries that clearly used AI without an AI use statement may be disqualified.