

Reaction Time Game – Assessment Rubric

Criteria	4 - Excellent	3 - Good	2 - Developing	1 - Beginning
Game Functionality	Game works perfectly; input and timing are accurate	Game works with minor issues	Game partially works; some errors	Game does not work
Programming Skills	Correct use of events, timing, and variables	Mostly correct with small mistakes	Some correct blocks but needs support	Limited understanding of blocks
Use of Electronics (Makey Makey)	Correctly set up and used independently	Minor help needed	Frequent help needed	Unable to use without support
Data Collection	All trials recorded and calculations correct	Most data recorded correctly	Some missing or incorrect data	Data incomplete or missing
Collaboration	Worked actively and respectfully with group	Mostly cooperative	Some difficulty working with others	Did not collaborate effectively
Explanation & Reflection	Clear and detailed explanation of how the system works	Basic explanation	Limited explanation	Unable to explain

Assessment

Criteria	Excellent (4)	Good (3)	Developing (2)	Beginning (1)
Programming and Game Functionality	Program works correctly, includes accurate timing, appropriate variables, and smooth gameplay.	Minor programming errors that do not significantly affect gameplay.	Game functions partially but contains several programming issues.	Program is incomplete or does not function correctly.
Data Collection & Analysis	Accurately records reaction times and clearly interprets the results.	Records data with minor interpretation errors.	Limited data collection or incomplete analysis.	Minimal or inaccurate data collection.
Scientific Understanding	Clearly explains reaction time and factors affecting it using scientific vocabulary.	Demonstrates general understanding with minor misconceptions.	Partial understanding of concepts.	Limited understanding demonstrated.
Collaboration	Works effectively with teammates, shares responsibilities, and contributes consistently.	Usually participates and collaborates appropriately.	Participates inconsistently.	Rarely contributes.
Sustainability & Health Awareness	Clearly explains how reaction time relates to safety, injury prevention, and SDG 3 (Good Health and Well-being), providing relevant real-world examples.	Makes a clear connection to health or safety.	Makes a limited connection.	Does not address sustainability or health.