Oak Hills 2027 STEM Expo
Traditional Science Project Scoring Rubric

Grade: _____ Project Number: _____
Project Name: _____

	4	3	2	1
Investigative Process	• Experiment aims to answer an original question • Hypothesis is formulated with critical reasoning • Variables to be manipulated are evidence based	• Experiment aims to answer a common question with an innovative idea • Hypothesis is formulated with logical reasoning • Variables to be manipulated are identified with some criteria	• Experiment lacks original thought but aims to answer a question • A hypothesis is present • Variables are identified but lack clear explanation of why they are being manipulated	• Experiment does not aim to answer a question, or the investigation does not match with the question identified • A hypothesis is not present or does not address outcomes • Variables are not identified or variables are identified with little or no understanding of why
Research	• Research provides a real world context for experiment • Information gathered provides clear experimental direction • Resources/bibliography cited appropriately	• Research provides context for experiment • Information gathered relates to experimental direction • Resources/bibliography cited	• Evidence that some research has occurred, but it does not provide experimental context • Information gathered is unclear or disconnected from experiment • Minimal resources/bibliography	• Research is lacking or does not align with experimental context • Unclear that background information was gathered • Resources/bibliography absent
Procedure	• Procedure is clearly outlined • Procedure follows a logical sequence • Multiple trials conducted over time • Materials used were clearly communicated	• Procedure is outlined • Procedure follows a sequence • Multiple trials were conducted • Materials used were communicated	• Procedure is unclear • Procedure is not sequenced • Multiple trials were not conducted • Materials used were not clearly communicated	• Procedure is not included • Multiple trials were not conducted • Materials list not included
Presentation of Results	• Data displays are clearly labeled • Data displays are easily understood • Data collection was precise • Data collected was appropriate to investigation (qualitative vs. quantitative) • Sample size was appropriate • Logbook was used with fidelity	• Data displays are labeled • Data displays are understandable • Data collected was appropriate to investigation (qualitative vs. quantitative) • Sample size needed adjustment • Logbook was used	• Data displays are minimally labeled • Data displays are understood with some explanation • Data collected was not appropriate to investigation (qualitative vs. quantitative) • Sample size was not considered • Logbook was present	• Data displays are not present • Logbook was not used
Student Understanding	• Student analysis of experimental results is clear • Student is able to discuss data and draw conclusions back to research • Depth of understanding is present • Student is anticipating further investigations to be conducted and/or research ideas	• Student analysis of experimental results lacks clarity • Student is able to discuss data and draw conclusions but connections back to research are weak • Student is able to identify possible further investigations through discussion with judges	• Student analysis of experimental results is weak • Student discussion of data shows lack of clarity • Conclusions are not connected to research • Student is minimally able to identify possible further investigations through discussion with judges	• Student analysis of experiment results is weak and lacks understanding • Student understands the experiment as a one time investigation
Additional comments:				**Total points:**