2019-20 ELEMENTARY SCHOOL STEM FAIR
SCIENTIFIC DISCOVERYJUDGING SHEET

Name(s) _____ _____
Judge Number

_____

School _____

Project Title _____ #_____

Journal/Log	**Please Write Comments**	**Score**
Title Page Title, name, school, date.		**/4**
Table of Content All steps of Scientific Discovery Process listed: Purpose, Research, Hypothesis, Design Plan and Methodology, Execution, and Interpretation and Conclusion.		**/6**
Scientific Discovery Process **Purpose** Clearly stated, reasonable, and testable.		**/3**
Research Well-written research notes, in their own words, comprehensive, and contributes to field of study.		**/10**
At least three cited references.		**/3**
Hypothesis Well thought out, educated guess with an explanation of why.		**/4**
Design Plan and Methodology Step-by-step instructions are detailed, clear, and complete.		**/5**
Material list is detailed, clear, and complete.		**/5**
Controlled and experimental variables are identified, appropriate for the project, and complete.		**/5**
Data gathering plan is well designed, systematic, and organized.		**/5**
Execution Sufficient data gathered to support interpretation and conclusions and organized on a table or chart.		**/5**
Experiment done at least twice.		**/5**
Graph made appropriately using mathematical and statistical methods.		**/5**
Graph accurately made showing sound data and comparisons.		**/5**
Well written explanation of the graph with accurate data analysis.		**/5**
Interpretation and Conclusion Shows sound, thought out, accurate interpretation.		**/5**
Shows strong, reasonable conclusions.		**/5**
Shows strong application to real-world ideas.		**/5**
Student learning is evident in the writing.		**/5**
Overall Journal Presentation Neat, organized, easy to follow, and complete.		**/5**
Make sure you look at each point value before you give a score.	**Side One Total**	**/100**

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SCIENTIFIC DISCOVERY PROCESS JUDGING SHEET
(Continued)

#_____ Score	Display, Interview, and Project Design	Please Write Comments
/5	**Display** Scientific Discovery Process is neat, edited and physically sound.	
/10	Scientific Discovery Process is displayed: Purpose, Hypothesis, Design Plan (all parts), Execution (data table, graph, and analysis), and Interpretation and Conclusion. **Research need not be on the board.**	
/10	Scientific Discovery Process shows clarity of words, graphics, legends, is self-explanatory, and flows in a logical order. **Supportive documentation cited on board.**	
/5	Board design demonstrates exceptional and significant thought out creativity.	
/10	**Interview** Student shows a basic knowledge of field studied closely relevant to the project.	
/10	Student is able to clearly explain the Scientific Discovery Process with the results of the project and its potential impact on science.	
/10	Student gives thoughtful responses to questions and understands the interpretation and limitations of the results.	
/5	Student shows interest, enthusiasm, and a passion toward the project and has quality ideas for further research.	
/10	**Project Design Follow Through** Significant innovative, creative, and procedural approach with ingenious use of materials and equipment to answer the question or solve the problem equal to at least a $5^{th}/6^{th}$ grade level thinking.	
/10	Project shows exceptional strong, in-depth thought and work to design and conduct an experiment with excellent follow through to answer the question or solve the problem.	
/5	Student shows a large degree of independence in developing and conducting the project.	
/10	Student shows recognition of potential implications in science and society, demonstrating strong, interpretative conclusions with useful connections to the real world.	
/100 **Side 2 Total**	**Each line may have different point values. Please make sure you look at each point value before you give a score.**	
/100 **Side 1 Total**		
/200 **Total Score**		