Dear Judges,

Below is a suggested list of what to look for in a quality science fair project. Of course, not all studies, models, demonstrations, or experiments have the same form. However, to enable greater consistency between judges and greater fairness to students, we ask that you look over these judging quidelines. Thank you for your time and expertise!

## A GOOD SCIENCE LOGBOOK HAS:

- \* \* Evidence of thorough background research in the form of hand-written notes from an identified source. This year, we are being flexible with handwritten vs typed research notes.
- \* \* More than one source used as background research and identified in a bibliography.
- \* \* Good overall organization of logbook, preferably in sections clearly labeled.
- \* \* Rough notes and drafts of <u>EVERYTHING</u>: Phone calls, daily records, interviews with advisors, charts, graphs, etc.
- \* \* Evidence more than one trial was done (can be in sequence or several done simultaneously).
- \* \* Pertinent data, well organized and in original hand-written form.

## A GOOD SCIENCE BACKBOARD HAS:

- \* \* A clearly worded hypothesis which includes a "because" statement based on prior research.
- \* \* A procedure which clearly identifies significant steps taken in order; neither too short nor too wordy.
- \*\* Results written out clearly, often in list form. Should include: Results of averages of trials; ranges noted among trials; numerical data as well as observations of non-numerical items; <u>NO</u> conclusive statements.
- \* \* Results also shown in the form of graphs and/or tables.
- \* \* Graphs which are coherent: Title, axes correctly labeled, trials and averages clearly represented, important graphs given more prominence than less important graphs.
- \* \* Mathematics in which the steps taken are clear and emphasis is placed on averages, not single trials.
- \* \* Conclusions appropriate to the science conducted. Neither too wordy, nor too abbreviated.
- \* \* In exceptional projects a separate section contains real world applications or inferences on how the natural world works.

DON'T FORGET TO CONSIDER LEVEL OF DIFFICULTY AND ORIGINALITY

## Humboldt County Science Fair Project Score Form 4th-5th grade

Comments: We'd love to send our young scientists your feedback and comments! There will be a space on the bottom of your ONLINE judging form to leave comments for students. Aim to provide 1-2 pieces of positive feedback and 1-2 pieces of constructive feedback. These comments will be the only form of feedback students will receive. Here is a helpful list of suggested comments  $\rightarrow$  click here. Always precede a suggestion with a compliment!

LOGBOOK	Not present in any form.	Limited completion of requirements. May be missing some components.	Meets requirements stated.	Exceptional work that goes BEYOND requirements	
Mandatory Research Approval Certificate found and completed.	0			6	
Entries are in the student's handwriting. If done on a computer, wording appears to be their own.	0	2	4		
Origin of idea for project is explained.	0	2	4		
Work done on all phases of the project is recorded as appropriate (dates, times, places, diagrams). If a team project, each student has a separate logbook.	0	2	4	6	
Notes or comments on problems, methods, conclusions are included.	0	2	4	6	
Notes from background reading are present.	0	2	4	6	
Bibliography and sources of information (written materials, interviews) are cited. May be on display.	0	2	4	6	

PROJECT DISPLAY	Not present- Not present on virtual display/ slideshow or in logbook	Minimal- Unclear or not comprehensive (needs elaboration)	Standard- Clearly Stated. Accomplishes purpose of task.	Good- Clear, and demonstrates good understanding of scientific principles or practices.	Exceptional- Clear, comprehensive and demonstrates good understanding of scientific principles or practices (Exceptional insights into the nature and resolution of problems encountered.)
Purpose or problem is clearly stated. If experiment, hypothesis is included.	0	1	2	3	4
Methods and procedures followed are clearly stated. If a team project, evidence indicates both members have contributed equally.	0	1	2	3	4
For experiments: results in the form of observations, graphs, charts or written explanations are present. For demonstrations: models, collections or diagrams are present.	0	1	2	3	4
Conclusions that are justified by student observations are presented.	0	1	2	3	4
Project is neatly labeled and organized.	0	1	2	3	4
Grammar and spelling on display are correct. (Do not deduct for spelling or grammar errors in logbook.)	0 8 or more errors	1 5-7 errors	<b>2</b> 3-4 errors	3 1-2 errors	<b>4</b> 0 errors

OVERALL QUALITY	No suggestions for score values for this section are offered. Judges are advised to use their personal experience in assigning scores in this section.								
Originality of idea for investigation	0	0 1 2 3							
Creativity of approach (methods/procedures)	0	1	2	3					
Level of difficulty of task	0 1 2 3								
Relates project to broader scientific principles, real-world applications	0	1	2	3					

## Humboldt County Science Fair Project Score Form 6th-12th grade

Comments: We'd love to send our young scientists your feedback and comments! There will be a space on the bottom of your ONLINE judging form to leave comments for students. Aim to provide 1-2 pieces of positive feedback and 1-2 pieces of constructive feedback. These comments will be the only form of feedback students will receive. Here is a helpful list of suggested comments  $\rightarrow$  click here. Always precede a suggestion with a compliment!

LOGBOOK	Not present in any form.	Limited completion of requirements. May be missing some components.	Meets requirements stated.	Exceptional work that goes BEYOND requirements
Mandatory Research Approval Certificate found and completed.	0			6
Entries are in the student's handwriting. If done on a computer, wording appears to be their own.	0	2	4	
Origin of idea for project is explained.	0	2	4	
Notes from background reading, research are present.	0	2	4	6
Work done on all phases of the project is recorded as appropriate (dates, times, places, diagrams). If a team project, each student has a separate logbook.	0	2	4	6
Tables, tally marks or notes used to record preliminary results or thoughts about the project are included.	0	2	4	6
Bibliography is present; sources for information are cited (books, magazines, interviews with people, etc). This may be on the display.	0	2	4	6
Abstract accurately summarizes project (Can be found in logbook or on Abstract Tab).	0	2	4	

PROJECT DISPLAY	Not present- Not present on virtual display/ slideshow or in logbook	Minimal- Unclear or not comprehensive (needs elaboration)	Standard- Clearly Stated. Accomplishes purpose of task.	Good- Clear, and demonstrates good understanding of scientific principles or practices.	Exceptional- Clear, comprehensive and demonstrates good understanding of scientific principles or practices Exceptional insights into the nature and resolution of problems encountered.
Purpose or problem is clearly stated.	0	1	2	3	4
Hypothesis is clearly stated.	0	1	2	3	4
Methods and procedures followed are clearly stated. If a team project, evidence indicates both members have contributed equally.	0	1	2	3	4
Variables to be controlled and manipulated have been identified.	0	1	2	3	4
Observations in the form of graphs and/or charts are presented.	0	1	2	3	4
Experiment was repeated to establish validity.	0	1	2	3	4
Written explanation of results are clearly stated.	0	1	2	3	4
Factors that could have influenced results are discussed.	0	1	2	3	4
Conclusions are related to the hypothesis and are clearly stated and justified from the student's observations.	0	1	2	3	4
Project is neatly labeled and organized.	0	1	2	3	4
Grammar and spelling on display are correct. (Do not deduct for errors in the logbook.)	0 8 or more errors	<b>1</b> 5-7 errors	<b>2</b> 3-4 errors	<b>3</b> 1-2 errors	<b>4</b> 0 errors

OVERALL QUALITY	No suggestions for score values for this section are offered. Judges are advised to use their personal experience in assigning scores in this section.							
Originality of idea for investigation	0	0 1 2 3 4						
Creativity of approach (methods/procedures)	0	1	2	3	4			
Level of difficulty of task	0 1 2 3 4							
Relates project to broader scientific principles, real-world applications	0	1	2	3	4			