



PERMIAN BASIN SCIENCE
AND ENGINEERING FAIR

Project Evaluation Rubric

Please leave this form on the judging table when finished judging.

Project#: _____

I. Creative Ability	<u>Minimal</u> 1	<u>Below Average</u> 2	<u>Average</u> 3	<u>Above Average</u> 4	<u>Excellent</u> 5
II. Scientific Thought/Engineering Goals	<u>Minimal</u> 1	<u>Below Average</u> 2	<u>Average</u> 3	<u>Above Average</u> 4	<u>Excellent</u> 5
III. Thoroughness	<u>Minimal</u> 1	<u>Below Average</u> 2	<u>Average</u> 3	<u>Above Average</u> 4	<u>Excellent</u> 5
IV. Skill	<u>Minimal</u> 1	<u>Below Average</u> 2	<u>Average</u> 3	<u>Above Average</u> 4	<u>Excellent</u> 5
V. Clarity	<u>Minimal</u> 1	<u>Below Average</u> 2	<u>Average</u> 3	<u>Above Average</u> 4	<u>Excellent</u> 5

Total Points: _____/25

This project should be considered for the Best in Show Prize (Senior Division Grades 9-12 only):

Comments

Optional rubric (included to help with judging) is on the back

Optional Rubric

I. Creative Ability		
<p><u>Minimal/Below Average = 1 or 2</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Idea not original <input type="checkbox"/> Methods not original <input type="checkbox"/> Does not promote an original & efficient way to solve problems <input type="checkbox"/> No new conclusions reached 	<p><u>Average = 3</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Ideas somewhat original <input type="checkbox"/> Some original methods used <input type="checkbox"/> Promotes a somewhat efficient & reliable way to solve a problem <input type="checkbox"/> Possibly new conclusion reached 	<p><u>Above Average = 4 or 5</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Idea is truly original <input type="checkbox"/> Strong originality in methods used <input type="checkbox"/> Promotes an efficient & reliable way to solve a problem <input type="checkbox"/> New conclusions reached
II. Scientific Thought/Engineering Goals		
<p><u>Minimal/Below Average = 1 or 2</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Unclear purpose/objective <input type="checkbox"/> Hypothesis poorly developed <input type="checkbox"/> Variables poorly defined <input type="checkbox"/> Observations not controlled, accurate, measurable <input type="checkbox"/> Insufficient data <input type="checkbox"/> Conclusions on limited to data <input type="checkbox"/> Little record of observations in log book <input type="checkbox"/> Solution unworkable <input type="checkbox"/> No evidence of related research including a bibliography 	<p><u>Average = 3</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Somewhat clear purpose/objective <input type="checkbox"/> Hypothesis somewhat well developed <input type="checkbox"/> Variables somewhat defined <input type="checkbox"/> Observations loosely controlled, somewhat accurate & measurable <input type="checkbox"/> Includes adequate amount of data <input type="checkbox"/> Conclusions somewhat limited to data <input type="checkbox"/> Adequate record of observations in log book <input type="checkbox"/> Solution may be workable <input type="checkbox"/> Adequate evidence of related research including bibliography 	<p><u>Above Average/Excellent = 4 or 5</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Clear purpose/objective <input type="checkbox"/> Hypothesis well developed <input type="checkbox"/> Variables clearly controlled <input type="checkbox"/> Observations controlled, accurate & measurable <input type="checkbox"/> Includes extensive amounts of data <input type="checkbox"/> Conclusions limited to data <input type="checkbox"/> Extensive record of observations in log book <input type="checkbox"/> Solution is workable <input type="checkbox"/> Evidence of significant research extensive including bibliography
III. Thoroughness		
<p><u>Minimal/Below Average = 1 or 2</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Purpose not fully carried out <input type="checkbox"/> Problems not adequately covered <input type="checkbox"/> Conclusion based on a single experiment or replication <input type="checkbox"/> Project notes insufficient <input type="checkbox"/> Insufficient amount of time spent on project <input type="checkbox"/> Student unaware of other theories, approaches, and scientific literature related to project 	<p><u>Average = 3</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Purpose carried out to a limited degree <input type="checkbox"/> Problem covered somewhat <input type="checkbox"/> Conclusions based on adequate number of experiments/replications <input type="checkbox"/> Project notes limited/somewhat complete <input type="checkbox"/> Limited amount of time spend on project <input type="checkbox"/> Student somewhat aware of other theories, approaches, and scientific literature related to project 	<p><u>Above Average/Excellent = 4 or 5</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Purpose carried out to completion <input type="checkbox"/> Problem covered completely <input type="checkbox"/> Conclusions based on extensive number of experiments/replications <input type="checkbox"/> Project notes extensive and complete <input type="checkbox"/> Sufficient amount of time spent on project <input type="checkbox"/> Student fully aware of other theories, approaches, and scientific literature related to project
IV. Skill		
<p><u>Minimal/Below Average = 1 or 2</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Student shows little evidence of necessary skills to obtain data <input type="checkbox"/> Student received much assistance from parents, teacher and other adults <input type="checkbox"/> Student demonstrates little understanding of project and related facts 	<p><u>Average = 3</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Student shows adequate evidence of necessary skills to obtain data <input type="checkbox"/> Student received some assistance from parents, teacher and other adults <input type="checkbox"/> Student demonstrates partial understanding of project and related facts 	<p><u>Above Average = 4 or 5</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Student shows extensive evidence of necessary skills to obtain data <input type="checkbox"/> Student received little or no assistance from parents, teacher and other adults <input type="checkbox"/> Student demonstrates extensive understanding of project and related facts
V. Clarity		
<p><u>Minimal/Below Average = 1 or 2</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Student unable to discuss project <input type="checkbox"/> Exhibit unappealing and not self-explanatory <input type="checkbox"/> Data not clearly presented; numerous errors in spelling and labeling <input type="checkbox"/> Work did not appear to be done by student or haphazardly done 	<p><u>Average = 3</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Student somewhat able to discuss project <input type="checkbox"/> Exhibit somewhat appealing and self-explanatory <input type="checkbox"/> Adequate presentation of data; mostly correct spelling and labeling <input type="checkbox"/> Most work done by student 	<p><u>Above Average = 4 or 5</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Student able to discuss project with confidence <input type="checkbox"/> Exhibit appealing and self-explanatory <input type="checkbox"/> Data clearly presented with correct spelling and labeling <input type="checkbox"/> Work obviously done by student