

CARF SECONDARY PROJECTS: EXPERIMENT SCORING GUIDELINES

SECTION 1: SCIENTIFIC CONTENT (Experiment Projects)

HYPOTHESIS /10			
Excellent (8-10)	Good (4-7)	Fair (0-3)	Score
<ul style="list-style-type: none"> A significant amount of background research has been done. Research materials have been sought in order to formulate a scientifically significant experiment. 	<ul style="list-style-type: none"> Some background research was conducted. The hypothesis is relevant. 	<ul style="list-style-type: none"> Little background research was done. An appropriate hypothesis was formulated based on existing knowledge. 	<p style="text-align: center;">10</p>
METHOD /20			
Excellent (14-20)	Good (7-13)	Fair (0-6)	Score
<ul style="list-style-type: none"> Experimental procedure and materials used are clearly laid out. Experiment was repeated to ensure accurate results, or a large sample size used. Manipulated and responding variables are indicated and understood. Efforts were made to control many outside factors that could affect the experiment. Logbook contains a full dated record of the experiment, including all original data. 	<ul style="list-style-type: none"> Experimental procedure and materials are described. Experiment has been repeated at least once, or a large sample size was used. Manipulated and responding variables are stated. Logbook contains a record of the project. 	<ul style="list-style-type: none"> Some description of the procedure are materials used. Experiment may not have been repeated, but enough observations were conducted to make a conclusion. Manipulated and responding variables are mentioned. Logbook contains at least a description of the tasks undertaken over the course of the project. 	<p style="text-align: center;">20</p>
ANALYSIS AND CONCLUSIONS /15			
Excellent (11-15)	Good (6-10)	Fair (0-5)	Score
<ul style="list-style-type: none"> Significant analysis of the data has been conducted, and clearly presented (charts, graphs, calculations, etc.) Most possible sources of error have been acknowledged. Analysis is sufficient to support and conclusions made 	<ul style="list-style-type: none"> Some analysis has been done and presented and is relevant to the stated hypothesis. Some sources of error have been considered and some effort has been made to control external factors. Appropriate conclusions have been drawn. 	<ul style="list-style-type: none"> Data found has been clearly displayed. A few sources of error and controlled conditions are acknowledged. Conclusions are relevant to the presented data. 	<p style="text-align: center;">15</p>
TOTAL SCORE			<p style="text-align: center;">45</p>

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SECTION 2: CREATIVITY AND INSIGHTS /25

Excellent (18-25)	Good (11-17)	Fair (0-10)	Score
<ul style="list-style-type: none"> Student showed independent thinking in the design, implementation and analysis of the project. All aspects of the project (hypothesis, improvements, applications, etc.) have been considered. 	<ul style="list-style-type: none"> The student was able to independently expand on any existing form of the project. The student has acknowledged problems, extensions, improvements and applications that can be made. 	<ul style="list-style-type: none"> The project may not have been designed independently but the student shows some understanding of its aspects. A few problems, extensions, improvements and applications have been considered. 	<p style="text-align: center;">25</p>

SECTION 3: COMMUNICATION /20

Excellent (14-20)	Good (7-13)	Fair (0-6)	Score
<ul style="list-style-type: none"> The student introduced themselves. All required information was presented in the display or clearly described by the student All material from other sources was properly credited and applicable forms were presented. The student was able to answer all questions relevant to the project. The student's presentation was concise, organized, coherent and comprehensive. 	<ul style="list-style-type: none"> Most of the components are present Most of the material from other sources was properly credited and applicable forms were present The student presented some of the components of the project and was able to answer some questions. The student's presentation was somewhat organized and comprehensive. 	<ul style="list-style-type: none"> Some aspects of the project were readily available. Some research from outside sources were credited. The student could answer a few of the questions. The student's presentation was lacking in organization and coherence. 	<p style="text-align: center;">20</p>

DEGREE OF DIFFICULTY /10

Excellent (8-10)	Good (4-7)	Fair (0-3)	Score
<ul style="list-style-type: none"> The student has approached material beyond their grade level and has gained new understanding. 	<ul style="list-style-type: none"> The student has done independent research and made some progress in understanding 	<ul style="list-style-type: none"> The student has learned something outside of their curriculum for this project. 	<p style="text-align: center;">10</p>

Total Score			55
TOTAL OVERALL SCORE			100