

## Marking Guide – Student Inquiry

Student Name: \_\_\_\_\_ Evaluator's Name: \_\_\_\_\_ Final Score: \_\_\_\_\_

<b>Part A: Scientific Thought 20%</b>				<b>Mark</b>
<b>Experiment</b> An investigation undertaken to test a specific hypothesis using experiments. Experimental variables, if identified, are controlled to some extent.	<b>Innovation</b> Involves the development and evaluation of new devices, models, techniques or approaches in fields such as technology, engineering, or computers (software and hardware).			
<b>Level 1 (1-9)</b>				
Duplicating a <b>known experiment</b> to confirm the hypothesis. Hypothesis is totally <b>predictable</b>	Building of models (devices) of <b>existing technology</b> .			
<b>Level 2 (10-12)</b>				
<b>Extend a known experiment</b> through modification of procedures, data gathering and application.	<b>Make improvements to, or demonstrate new applications</b> for existing technological systems or equipment and justify them.			
<b>Level 3 (13-16)</b>				
<b>Devise</b> and carry out an experiment with controls. Variables are identified. <b>Some significant variables</b> are <b>controlled</b> . Data analysis includes <b>graphic presentations</b> .	<b>Design and build</b> innovative technology <b>or provide adaptations</b> to existing technology that will have economic applications and/or human benefit.			
<b>Level 4 (17-20)</b>				
Devise and carry out experimental research that attempts to <b>control or investigate most significant variables</b> . Data analysis includes <b>graphic presentations</b> and <b>may</b> include some simple <b>statistical analysis</b> .	Integrate several technologies, inventions or designs and <b>construct an innovative technological system that will have commercial and/or human benefit</b> .			

<b>Part B: Creativity 15%</b>				<b>Mark</b>
<b>Level 1 (1-7)</b>	<b>Level 2 (8-10)</b>	<b>Level 3 (10-13)</b>	<b>Level 4 (14-15)</b>	
<b>Little creativity</b> shown. Project design is simple with <b>minimal student input</b> . A textbook or magazine type project.	<b>Some creativity</b> shown in a project of <b>fair to good design</b> . Standard approach using common resources or equipment. Topic is a current or common one.	<b>Imaginative project</b> . Good use of available resources. <b>Well thought out</b> . Creativity in design and/or use of materials.	A <b>highly original</b> project or a novel approach. Shows <b>resourcefulness</b> . Creativity in design, use of materials	

<b>Part C: Skill 30%</b>				
To what extent does the project/exhibit represent the student's own skills? Were the questions answered effectively and accurately?      -Workmanship neat, well done Was the workmanship of the display skilful?                      -Project requires minimum maintenance and repair				
<b>Level 1 (1-14)</b>	<b>Level 2 (14-20)</b>	<b>Level 3 (21-26)</b>	<b>Level 4 (27-30)</b>	<b>Mark</b>
<b>Little skill</b> is shown.	<b>Some skill</b> is shown.	A <b>good</b> level of skill is shown	A <b>high</b> level of skill is shown	

<b>Part D: Dramatic Value 15%</b>				
Presentation was enthusiastic and comprehensive Visual aids utilized Display effectively presents project – not too crowded, well organize and self-explanatory, visually attractive/dramatic				
<b>Level 1 (1-7)</b>	<b>Level 2 (8-10)</b>	<b>Level 3 (10-13)</b>	<b>Level 4 (14-15)</b>	<b>Mark</b>
Presentation did not effectively present the project	Presentation displayed <b>some enthusiasm</b> . <b>Some visual aids</b> were used. Presentation was partially effective	Presentation displayed <b>good enthusiasm</b> . A <b>number of visual aids</b> were used. Presentation was effective.	Presentation displayed <b>very good enthusiasm</b> . A <b>number of visual aids</b> were used. Presentation was <b>fully</b> effective.	

<b>Part E: Written Report 20%</b>				
Are the important phases of the project presented in a logical and scientific manner? Has the student expressed him/herself well?    The student must prepare the written report. The report should not exceed five (5) pages, 22 x 28 cm size (approx 8.5 x 11 in), double-spaced, 12 pt. font, typewritten on one side only (or the handwritten equivalent thereof) including all graphs, diagrams, etc. The report should have a simple format, and include: Introduction (stating the aims and objectives of the work) Procedure (a summary of the significant materials and methods used in the study) Results (a summary of the results/observations) Conclusions (a summary of the conclusions) Acknowledgement (acknowledging help received)				
<b>Level 1 (1-9)</b>	<b>Level 2 (10-12)</b>	<b>Level 3 (13-16)</b>	<b>Level 4 (17-20)</b>	<b>Mark</b>
<b>Does not</b> meet the criteria listed above	<b>Partially</b> meets the criteria listed above	<b>Mostly</b> meets the criteria listed above.	<b>Fully</b> meets the criteria listed above.	