

# MYP Design Unit: World of Engineering

## Criterion A: Inquiring and analyzing

Maximum: 8

At the end of year 1, students should be able to:

- i. explain and justify the need for a solution to a problem
- ii. state and prioritize the main points of research needed to develop a solution to the problem
- iii. describe the main features of one existing product that inspires a solution to the problem
- iv. present the main findings of relevant research.

<b>Name:</b> _____ <b>Period:</b> _____	
<b>IB GRADE for Criterion A:</b> _____ <i>1=52 2=58 3=65 4=70 5=78 6=86 7=94 8=100</i>	
IB GRADE	Level Descriptor
0	The student <b>does not</b> reach a standard described by any of the descriptors below
1-2	The student: <ol style="list-style-type: none"> <li>i. <b>states</b> the need for a solution to the engineering problem X INC R</li> <li>iv. <b>states</b> the findings of research on engineering. X INC R</li> </ol>
3-4	The student: <ol style="list-style-type: none"> <li>i. <b>outlines</b> the need (or some requirements) for a solution to a problem</li> <li>ii. <b>states some</b> points of research needed to <b>develop</b> a solution, <b>with some guidance</b> (DCT: X, INC, R, P-)</li> <li>iii. <b>states</b> (or diagrams) the basic features of an existing product that inspires a solution to the engineering problem X INC R</li> <li>iv. <b>outlines some of</b> the main findings of research on 2 or fewer engineering concepts and issues. X INC R</li> </ol>
5-6	The student: <ol style="list-style-type: none"> <li>i. <b>explains</b> some of the requirements and/or partially justifies the need for a solution to the engineering problem</li> <li>ii. <b>states and prioritizes</b> the main points of the research needed to <b>develop</b> a solution to the engineering problem, <b>with some guidance</b> (DCT: P/P+)</li> <li>iii. attempts to <b>outlines</b> (and/or draws) the main features of an existing product that inspires a solution to the problem</li> <li>iv. <b>outlines</b> the main findings relevant research on at least 2 engineering concepts &amp; issues with citations attempted.</li> </ol>
7-8	The student: <ol style="list-style-type: none"> <li>i. <b>explains</b> the requirements and <b>justifies</b> the need for a solution to the engineering problem</li> <li>ii. <b>states and prioritizes</b> the main points of research needed to <b>develop</b> a solution to the engineering problem <b>with minimal guidance</b> (DCT: P+/H)</li> <li>iii. <b>describes</b> and neatly draws the main features of an existing product that inspires a solution to the problem</li> <li>iv. <b>presents</b> the main findings of relevant research on 2-3 engineering concepts and issues with correct citations.</li> </ol>