Year 10: ASK Yourself!

Subject: Computer Science
Unit: Term 3

	Launching 1-2	Developing 3-4	Progressing 5-6	Mastering 7-9
S kills				
Design Top Down Input, Process Output Data structures	I can design a simple algorithm. I can use a diagram to show an algorithm. I can identify the inputs, processes and outputs required in an algorithm.	I can design an algorithm to solve a problem. I can use a Top Down approach to show an algorithm. I can use a flowchart to plan my solution.	I can design an algorithm to solve a complex problem. I can include functions in my algorithm design. I can use Pseudocode to plan my solution.	I can design an efficient algorithm to solve a complex problem. I can identify local and global variables in my algorithm.
Testing solutions	I can test my solution to ensure it works.	I can produce a test plan to ensure my solutions work and provide evidence of testing against my plan.	I can produce a test plan that includes normal, extreme and erroneous data. I can provide evidence of testing against my plan.	I can evaluate the robustness and efficiency of my solution.
K nowledge				
Design algorithm	I know how to break of problem down into manageable steps.	I know how to use Top Down approach to break down the problem into manageable steps.	I know how to use Pseudocode to describe my algorithm.	I can evaluate alternative algorithms and select the most efficient.
Design the data structure	I know how and when to use variables to store values in my solution.	I know how and when to use lists to store values in my solution.	I know how and when to use 2D arrays to store values in my solution.	I know how and when to use text files to store values in my solution.

Evidence of solution	I can state the techniques used in my solution.	I can describe the techniques used in my solution.	I can discuss alternative techniques that could have been used in my solution.	I can evaluate the effectiveness of the techniques used in my solution.
Testing	I know how to create a simple test plan to check if parts of my solution work.	I know how to create a test plan to check if most parts of my solution work.	I know how to create a test plan with normal, extreme and erroneous data to check my solution works.	I know how to evaluate the robustness and efficiency of my solution.
Classification of Programming Languages	I can state the different levels of programming languages.	I can explain the differences between high and low level languages.	I can explain the term machine code and instruction set in relation to processors.	I can explain when it is beneficial to use each level of programming language.