Course Outline

Participation in this course will build on their foundation coding and robotics knowledge to develop more complex programs. Students will apply their understanding of Block coding with Micro:bits, which offer a range of project opportunities that span across the curriculum areas. In addition to coding, students will need to also consider their design process and evaluate if their coding effectively met the output expectations.

Teachers can work with the Micro:bits to contextualise the teaching. There are a lot of existing projects to work with PE, Science, Maths already on the Micro:bit site that can be altered, as needed. Examples include making homemade pedometers to compare with store bought ones or soil moisture readers (plant based), link with music to develop their keyboard, etc

Criteria	**Can use technological systems to understand and communicate using Microbit coding.**
Microbits Basics	
Working AT curriculum expectation	Can programme, save and download using a microbit
Working AT curriculum expectation	Works with inputs and outputs to control the mainboard output
Working AT curriculum expectation	Works with inputs and outputs to communicate between different sets of microbits
Block Coding	
Working AT curriculum expectation	Identified a need and developed a Design Brief for their project (Google slides)
Working ABOVE curriculum expectation	Designed and trialed a project that has programmable inputs and outputs (Microbit with outcome prototype including the use of LED and buzzer).
Working ABOVE curriculum	Used stakeholder feedback to improve input and output processes for the selected project (Prototype)

expectation	
Working BEYOND curriculum expectation	Utilised more complex Block coding and features to successfully improve efficiency of technological programmes
Working BEYOND curriculum expectation	Evaluated, justifying with examples, how the inputs and outputs of the final prototype determined whether they met their expected project Design Brief

Technology Achievement Outcome - L4 - Technological systems
Understand how technological systems employ control to allow for the transformation of inputs to outputs.