Unit Title	Microbits				
Subject group and discipline	Digital Design	MYP year	3	Unit duration (hrs)	10

Inquiry: Establishing the purpose of the unit

Key concept	Related concept(s)	Global context *choose 1 and then drill down to exactly which aspect of these the unit will focus on*
Development	**Innovation, Function**	**Scientific and technical innovation** Systems, models, methods; products, processes and solutions

Statement of inquiry
Existing technology can be adapted to perform new functions

Inquiry questions
Factual— **What is a variable?** **What are possible inputs and outputs from computers?** **Conceptual—** **How do computers store and represent images?** **How do the tools available and my ability limit design possibilities?** **Debatable—** **What is the best way to communicate with a very limited display?** **What makes a computer easy to interact with?**

Objectives	**Summative assessment** *This does not always have to be a GRASPS task but it does need to involve students demonstrating progress by transferring the skills and knowledge they have learnt to a real-life context. An analytical essay or practice exam questions (not quizzes) counts as real life context. Students need to construct a response using the knowledge and skills they practised in the unit.*

B Developing ideas i.develop a design specification which outlines the success criteria for the design of a solution based on the data collected ii.present a range of feasible design ideas, which can be correctly interpreted by others iii.present the chosen design and outline the reasons for its selection iv.develop accurate planning drawings/diagrams and outline requirements for the creation of the chosen solution. C Creating the solution i.construct a logical plan, which outlines the efficient use of time and resources, sufficient for peers to be able to follow to create the solution ii.demonstrate excellent technical skills when making the solution iii.follow the plan to create the solution, which functions as intended iv.explain changes made to the chosen design and the plan when making the solution D Evaluating i.describe detailed and relevant testing methods, which generate accurate data, to measure the success of the solution ii.explain the success of the solution against the design specification iii.describe how the solution could be improved iv.describe the impact of the solution on the client/target audience.	Outline of summative assessment task(s) including assessment criteria: G oal design a computing device that can help people with their health Role you are an application developer A udience adults to struggle to stay healthy S ituation you have been hired to explore the possibilities of how this new technology can be useful. Purpose help people with making healthier choices. Standards and criteria B C D	Relationship between summative assessment task(s) and statement of inquiry: Students explore how being creative they can all create different applications with the same technology that are useful in their own ways

Approaches to learning (ATL) ***These can be listed or you could offer some explanation of how they will be developed***

In order for students to solve programming problems they must practice 'bouncing back' after adversity, mistakes or failures.
Explicitly taught and practiced skill strategies: 'Rubber duck debugging'

Affective skills: practice bouncing back. Debugging strategies.