**<Making a Step Tracker>**

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| **Programme:** | Making a Step Tracker | **Level:** | Primary 6 |
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| **Theme / Challenge Statement:** | Design a step tracker for 10 000 steps challenge |  |  |

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| **Summary**  The P6 students designed a step tracker using micro:bits and recyclable materials as part of their post-PSLE activity. |

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| **Prior Knowledge:** | Students should already know:  1. what a step tracker does  2. how a step tracker works |
| **Learning Objectives:** | By the end of the lesson, students should be able to:  1. use recyclable materials to make a step tracker  2. programme a step tracker using micro:bit |

| **Time** | **Teacher Activities** | **Purpose** | **Resources Needed** |
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| **Introduction/Pre-activity** | | | |
| 30mins | **Setting the context**  Ask the students if they have seen a step tracker before and what it is used for. Relate this to the National Steps Challenge. | To let students understand the objectives of accomplishing the tasks and relate it to something they are familiar with. | <https://www.healthhub.sg/programmes/124/community-challenge> |
| **Lesson development/Main activities** | | | |
| 1st hour | Introduction to micro:bit | To let students understand the available features / functionalities of the micro:bits   * Use block programming to compile a set of instructions | Micro:bits |
| 2nd and 3rd hour | Basic coding using micro:bit (LED and accelerometer) | To use the functions in micro:bit that are needed to build the step tracker and understand the use of logical reasoning using if-else statements and loops | Micro:bits |
| 4th hour | Digital Making (group work) | To use the basic block programming learnt to code a step tracker.  To use the recyclable materials given to make a wearable step tracker. | Micro:bits  Recyclable materials |
| 5th hour | Presentation | To showcase the product the students have made and share the ideas behind the making of the step tracker. | Final products |
| **Closure and consolidation/Post-activity** | | | |
| 30 mins | Get students to talk about challenges / improvements to be done, reflections | To make the students thinking visible and think of ways to make improvements to the product they have made. | Reflection journal |

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| **Contributed by:**  Name of School: Angsana Primary School  Name of Teacher (Optional):  Date: 9 March 2018 |