<How Active Am I?>

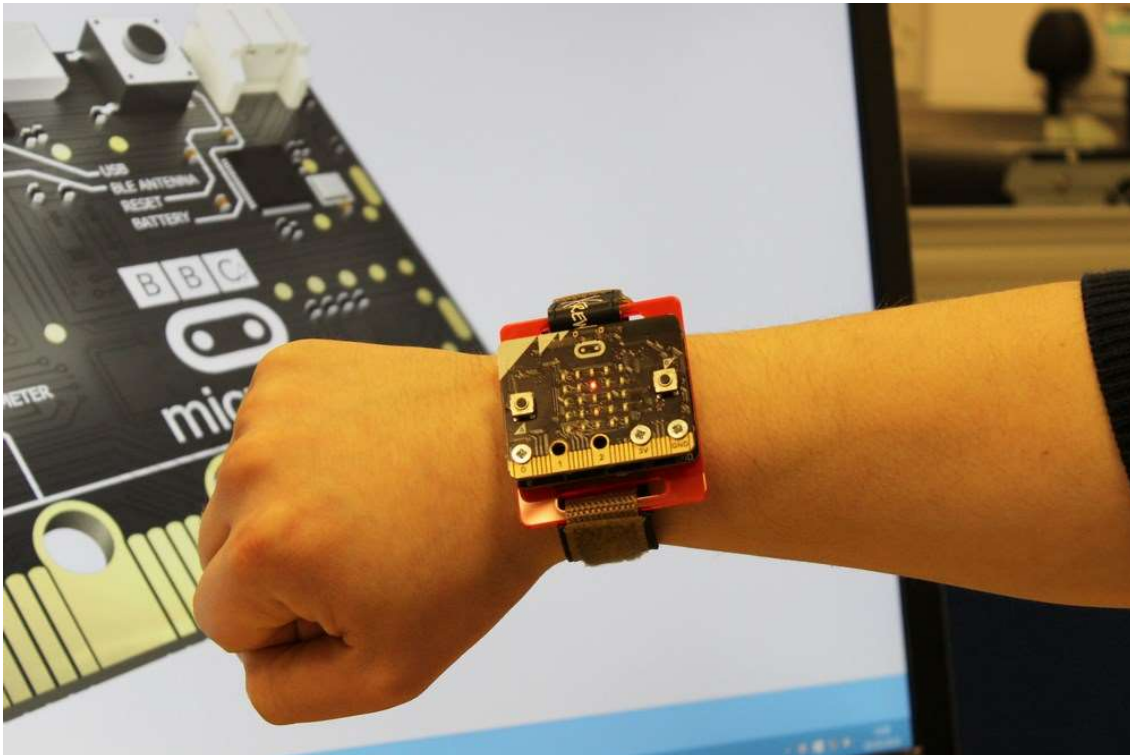**Subject:** Health Education   **Level:**   Pri 4
Unit: Ensuring growth and fitness
Topic: Aerobic Fitness

Summary

Pupils will create a stepometer so that they could count and see how many steps they take during different types of aerobic exercises. They chart the steps taken during each activity and see which activity would require them to cover more steps.

Prior Knowledge:	Students should already know: 1. How to code using microbits. 2. How to upload their code to the microbits. 3. How to count steps by adding.
Learning Objectives:	By the end of the lesson, students should be able to: 1.Design an experiment and figure out what exercise contributes the most number of steps. 2. Explain what aerobic activities are. 3. Give a recommendation on the duration of an aerobic activity.

Lesson Plan

Time	Teacher Activities	Purpose	Resources Needed
Introduction/Pre-activity			
5 min	Ask pupils to give examples of exercise that they have engaged in during their physical education lessons. Circle the activities which are aerobic in nature.	- Linking of topic to their own experience. - Start of concept attainment through examples.	
Lesson development/Main activities			
5 min	Get pupils to think-pair-share what these aerobic activities have in common. Using guiding questions like - How are they carried out? How long is each activity? What parts of the body do they require? How do you feel after each activity?	Concept attainment through examples.	
5min	Write down pupils' ideas of what the activities have in common. Link their ideas to the 3 main attributes of aerobic activities: They require the use of large muscle groups and don't just focus on one part of the body. They involve continuous movement over a long period of time. They increase your heart rate and breathing rate. Apply these principles to the activities that we listed out.		
15min	Show a short introductory video on how to use micro: bit that they could recall how to create something using a micro bit. It could be placed in an online forum or blog that pupils could access easily when they are required to create their stepometer. Show this link (https://www.microbit.co.uk/iet/stepometer) in the forum. Ask pupils to access it. Give pupils 2 minutes to look through the code so that they could later explain how it works.	Pupils are able to recap how to create a microbit project so that they would be more confident in carrying it out. Pupils learn about computational thinking through analysis of code. They need to be able to articulate what is going in the code and explain how to modify it to make it even	Video: https://www.youtube.com/watch?v=WK8jhupl7r0

	Get pupils to label themselves 'A' and 'B'. Get 'B's to explain to 'A's how the first part of the code works. Get 'B's to explain to 'A's how the second part of the code works. Ask pupils how they would modify the code if they needed the steps to be reset every time they press the button 'A' instead of increasing the number of steps.	better.	
10min	Pupils are asked to create the stepometer using the microbit by referring to the instructions given in the online forum.	By referring to an online source, pupils are able to create it at a pace comfortable to them and are able to use it for reference.	Microbits
10min	After creating the micro-bit, pupils are required to place it in their pocket. The class would be split into groups. Each group is to engage in one of the following activities: Dancing Skipping Jogging on the spot Jumping jacks Teachers will remind pupils to be mindful about the space around them and to be safe. After each activity, they are to record the number of steps they have taken. Pupils will then record the number of steps taken for their activity.	Pupils will find out which aerobic activity will require more steps. It will be a practical application of the use of the micro: bit that they could use to assess the effectiveness of different aerobic programmes.	Google sheet to record steps of each activity
Closure and consolidation/Post-activity			
5min	The teacher shows pupils how to calculate the average number of steps taken for each activity and	By showing the average number of steps required, the class is able to conduct	

	ask pupils for the conclusion as to which activity is more effective as an aerobic activity.	a fair experiment.	
5min	The teacher informs pupils that it is recommended for people to take 10000 steps a day and challenges pupils to find out how long they would have to exercise for each activity if they wish to achieve 10000 steps. This would be the exit ticket.	Pupils are able to draw a conclusion as to the duration of each activity.	

Please send this template, together with any additional resources, e.g. Powerpoint slides, worksheets and .hex file, to: digital_maker@imda.gov.sg.

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