

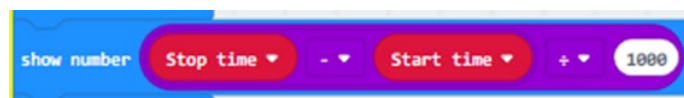
### Timer code modifications

# Introducing block coding: using the BBC micro:bit in the science classroom

## Timer code modifications

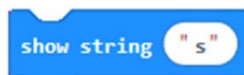
The 'show string' command used in this program is a little complicated. Firstly, the purple and red areas are an embedded maths operation. This maths operation subtracts the value of the variable 'start time' from the value of the variable 'stop time' and divides by 1000 (to convert milliseconds into seconds). The 'join' command joins the output from the arithmetic calculation to a 'space' and the letter 's' to indicate seconds. In doing this, the number value from the maths operation is converted into a string, and this string is then scrolled across the  $5 \times 5$  LED matrix.

You could use a simpler command with your students to show the elapsed time with no associated unit:



Simpler 'show number' code  
Image courtesy of G. Michael Bowen

If you wanted to add the unit to the output (as teachers often emphasize the importance of showing units), instead of using the 'join' code block, you could add the 'show string' (under the menu item 'Basic') block, with the letter s for seconds (without quotation marks), entered immediately after the 'show number' block.



Adding a unit  
Image courtesy of G. Michael Bowen