

### Saving the hex code program to your computer and the micro:bit

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

Once you have your program coded and working using the emulator, it is time to download the program onto the micro:bit.

1. Plug in the micro:bit using a USB/micro-USB cable to the computer.
2. Name the program. Beside the purple [Download] button is a box in which the program name can be entered. It is important to name the program something that assists with knowing what the program does, such as 'Countdown timer'.
3. Once the program is named, click the [Download] button or the blue 'disk' icon. [Note: if your browser is set to ask you where to save the file each time, then a window will pop up, so you can choose a location; otherwise, it likely saves to the default 'Downloads' folder/directory.] You can save directly to the micro:bit because it is recognized as an external drive when plugged in. However, that file then becomes inaccessible to the user, except through running the program on the micro:bit. We recommend saving the file to your preferred project directory first as well as to the micro:bit. The program downloads as a .hex file.



MakeCode area that allows you to save/download programs to the micro:bit and your computer  
*Image courtesy of G. Michael Bowen*

4. If you saved the .hex file to your hard drive first, you then need to save a copy of the .hex file from the directory it was saved in to the micro:bit 'drive'. Click on the .hex file, drag and drop it into the open micro:bit folder (or subfolder if you are organizing programs in one place), and then again onto the micro:bit drive.
5. After the program/.hex file transfers to the micro:bit (shown by a blinking yellow light on the back of the micro:bit; when the transfer is complete, the micro:bit then reboots itself), you can either run the micro:bit plugged into your computer (for power) or unplug the micro:bit from the computer, plug in a battery pack, and then let the program run.