# Don't put micro:bit in the cupboard!

Over the past year, all primary, secondary and additional support needs schools across Scotland have been receiving twenty micro:bits as part of a Scottish Government initiative to enhance the teaching of Computing Science (CS) and Digital Literacy in Scottish Schools.

These pocket sized entry level coding devices are used across the globe, with more than 6 million devices already in use, they are an amazing tool for engaging with Computing Science concepts and approaches. Micro:bits also open the door to seamless cross curricular learning opportunities and embedding this resource alongside the accompanying learning will help enhance skills for life, learning and work such as collaboration, creativity and problem solving.

However, with some of the main barriers to teaching Computing Science being a lack of staff confidence and training opportunities, there is the temptation for these brilliantly versatile devices to be put aside or even placed in what many teachers label 'the cupboards of doom'!

In this article we will explore a few options to get you started with your micro:bits, signposting some of the resources freely available to help gain confidence and to begin engaging with micro:bits in your setting.

Introduction to the BBC micro:bit
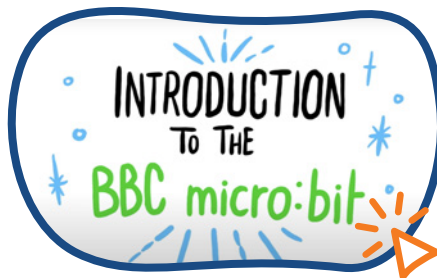
On the micro:bit website, you can find useful animated videos, like this introduction, related to all of the different functions of your micro:bit.

If you are looking to explore the micro:bit and you have access to a brand new micro:bit, it is pre-programmed with the 'out of the box experience', which is a showcase style program promoting some of the functionality of a micro:bit. Find out more here:
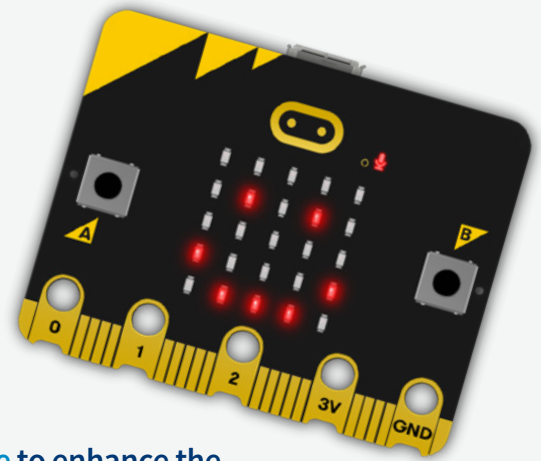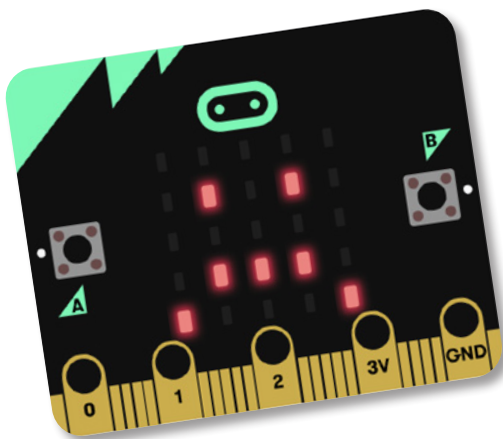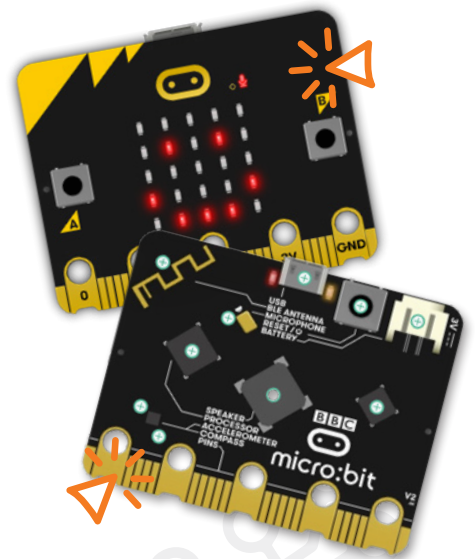
It is well worth getting a more detailed insight into the micro:bit and all of the features of the physical device in order to expand your knowledge of what it can do. We have created several Thinglinks to guide you through some of these features, as well as offering pertinent projects from the micro:bit website to try:

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If you are looking to explore even more projects developed around the micro:bit features, then the user-guide is a great place to explore (see above).

Keeping it simple with the micro:bit

To use the micro:bit you will require the hardware (the micro:bit) and also a device, such as an iPad/Chromebook/laptop, to run the MakeCode software. MakeCode is the coding environment used to develop programs for the micro:bit.

The micro:bit is compatible with most devices although there are differences between how you would use these. To find out more about the different devices and how these interact with the micro:bit, you can click on the link to a Sway below.

The Micro:bit Education Foundation have developed an amazing, yet accessible, array of tools to help overcome some of the barriers facing educators when considering Computing Science; creating an infrastructure to support staff and learners at all skill levels. This ensures you begin at a point where you feel comfortable and not instantly overwhelmed.

In this section we will consider how we 'Keep it Simple' by looking at the best places to start for those new to micro:bit and who may be lacking knowledge or confidence, exploring activities that require only the micro:bit and a device to use it with.

There are the two main websites available to support, taking very different approaches to engaging with micro:bit:

1) The official micro:bit website which focusses on 'Projects'

2) The MakeCode website from Microsoft which focusses on 'Tutorials'.

To find out more about these websites and the differences, you can click on the image below:


Both sites are perfect places to start your micro:bit journey and provide support networks to grow familiar with the micro:bit itself and the MakeCode coding environment.

You may find that learners will be very keen and quick to explore all of the functions and features available. However, it is essential that the core CS concepts are taught in conjunction with the micro:bit sessions.

Danger! Remember the CS Concepts and skills

There is a real danger with micro:bit that you can easily use the online infrastructures to empower the learners to create programs and engage with micro:bit, without ever having taught any of the CS concepts or skills along the way. »

Using micro:bit With Your Devices

Connecting the micro:bit to your device
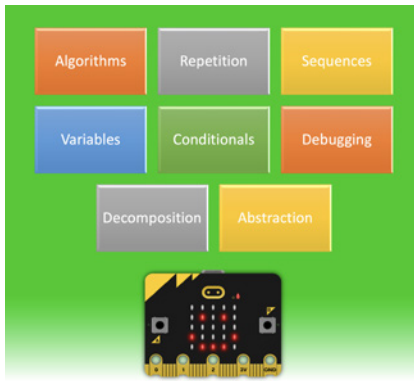
The Experiences and Outcomes, CfE Early to Second level, focus on Computing Science concepts and approaches such as algorithms, repetition, selection, debugging and decomposition, which can all naturally be taught using the micro:bit.

If teaching some of these concepts with micro:bits initially seems a bit daunting, you could try engaging in some simple unplugged sessions to enhance learner understanding. The previous digital edition of the Early Years and Primary STEM bulletin may help with this.
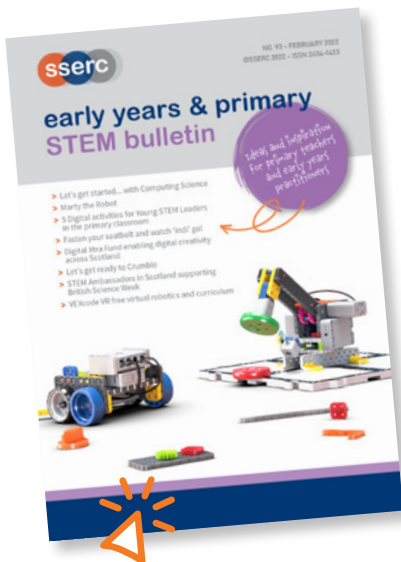
If you are keen to get started with micro:bits but are lacking confidence in teaching CS concepts and approaches, engaging with a program such at the 'micro:bit – Introduction to Computer Science' would be worth investigating.

The first 6 units focus on the following CS concepts:
• Algorithms
• Variables
• Conditionals
• Repetition

and provide step by step guides on how to teach these concepts alongside your micro:bits.

You can download the course in a variety of formats here:

Conclusion
Hopefully this article has given you enough information and guidance to get started using your micro:bits within your setting.

SSERC have had delegates attend our SSERC Digital micro:bit courses who started with no knowledge of micro:bit, but have since become digital ambassadors across their school and beyond.

The beauty of micro:bit is that the support infrastructure is there for beginners, and can be used by all, but there are also unlimited possibilities with this pocket sized computer.

Get started and give it a go, don't be afraid to learn alongside your learners; their enthusiasm will no doubt prove infectious.

Whatever you do, don't put micro:bit in the cupboard!

Please get in touch if you have any questions relating to this article or opportunities to learn more about micro:bits

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