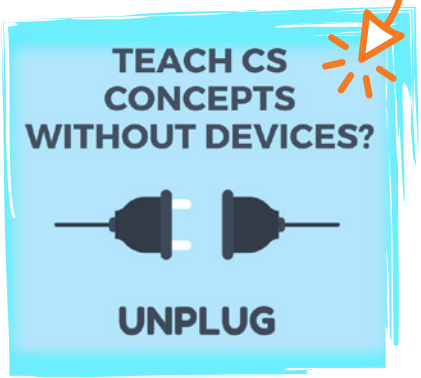
Let's get started...
with Computing Science (CS)

Computing Science has been highlighted as a subject in crisis, yet it has never been more relevant or important for our young people and future work force. So, to start with, let's ask the important question.

Unplugged CS: The foundation of understanding

Unplugged CS is a great way to engage learners and teach them the concepts of CS without having to use any devices. If you want to find out more about how this unique approach develops the foundations of computational thinking then click this image.



Unplugged to plugged

While Computing Science should not be taught entirely through unplugged activities, what it does help to provide is the foundations of learner understanding, which can then be enhanced through other methods.

After introducing a concept via unplugged activities, going on to use concrete resources such as Bee-Bots, Colby the Robot Mouse, Indi, Sphero, VEX GO, Botley 2.0, Marty etc. would build further on previous learning. It then may be advantageous to engage in some 'plugged' activities on devices such as iPads, laptops or ChromeBooks to cement the concepts via more abstract methods such as online coding platforms.

Click on the image below to see how this might look when covering the CS concept of repetition over a series of sessions. >>

RESOURCES TO SUPPORT UNPLUGGED CS

Barefoot

Barefoot Computing is an organisation that has produced a plethora of fantastic unplugged CS lessons. They have managed to create a whole range of lessons that can be easily delivered, adapted and differentiated, focusing on core Computing Science concepts, whilst engaging learners in fun and meaningful learning experiences.

All of these resources are free to access, and simply require a Barefoot account to download and get started. You can find out more via this Thinglink.

Hello Ruby

This website provides a huge variety of fantastic unplugged resources for your Early/First level setting, which are available in the 'Play' section. There is no need for an account or any sign up, and the activities are very engaging and unique, mimicking the quirky nature of the 'Hello Ruby' world. The activities cover lots of aspects of computational thinking like algorithms, decomposition, selection, problem solving, logic and many more, but also look closer at the internet and components that make up computers.

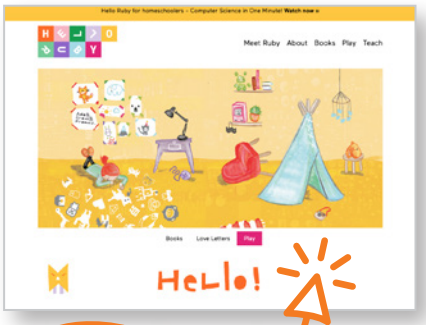
There is also a fantastic 'Teach' area which allows you and your learners to work through a pre-constructed programme to help embed the concepts of Computing Science into your classroom.

CS Unplugged

CS Unplugged provides a collection of free teaching resources that teach Computing Science through engaging games and puzzles, using common classroom materials and lots of running around.

Code.org – CS fundamentals unplugged

Code.org have provided a host of fantastic lesson plans, videos, games and activities in a well set out and structured list, guiding practitioners and their learners to work through a variety of courses. >>



Hello Ruby

CS unplugged

Code.org

Let's Play @ Computing Science

Here are some of the unplugged resources we use as part of our 'Let's Play @ Computing Science' course, which focusses on the Early/First level and using these resources in a play based environment.

Let's Go Code

Let's Go Code is a resource designed to 'encourage critical thinking, sorting information, mapping routes between points, and helping children break down large problems into smaller mini-puzzles that they can work through logically.'

Typically this game can be played in pairs or groups. There is usually one learner/group who will program the algorithms and the other/s will be the learner-bots who are directed around the maze.

Mouse Mania

Mouse Mania is a fun and educational board game used to introduce basic Computing Science concepts through play. This game can help develop skills in using algorithms, sequencing, debugging and selection, as well as directional language which learners can find difficult.

Taking it further

If you would like to explore unplugged Computing Science further, look out for our self-study course coming soon.
If you are interested, then please click the image below and we'll let you know as soon as the course is published and ready to access.

Conclusion

In conclusion, Computing Science is a fantastic subject which can help to teach your learners a multitude of essential skills, creates enthusiasm, engages learners, and does not have to be complex or complicated to teach.

Unplugged Computing Science is a great place to begin your journey, with learners gaining an understanding of computational thinking and Computing Science concepts as they go. <<