



# Odyssey Computing Hub

## Newsletter

**Teach  
Computing**

Half-Term Issue  
October 2020

Odyssey Computing Hub would like to wish you all a (long awaited!), well-deserved and restful half-term break.

If, like all of us who work in schools in the current situation, you are wrestling with the complex task of managing both remote and face to face teaching we hope we might be able to help by signposting resources which could be integrated into your live teaching but could also be adapted and used for your remote provision too.

### PRIMARY

#### TEACH COMPUTING

Teach computing have now completed their computing scheme of work. Presentations are available along with all the associated resources you will need to live teach the units. It is possible for you to take the presentations and narrate them to make them suitable for remote delivery. In addition, the Y5 and Y6 units of work have been turned into video lessons which are now hosted on Oak National Academy and can be found here:

<https://teachers.thenational.academy/subjects/computing/key-stages/key-stage-2>

The downloadable curriculum map is a useful starting point for organising which unit could be taught when.

#### CODE CLUB

Code Club has 3 modules suitable for KS2. Each module consists of several lessons which are clearly explained and guide the novice programmer through each project. With a little teacher input and guidance these would be really helpful for blended teaching. The modules could be used to explore programming across Key Stage 2 with module 1 being used for pupils in Year 3 for example and the additional (4th option) being used for Year 6.

<https://projects.raspberrypi.org/en/codeclub>

#### BAREFOOT COMPUTING

Not all pupils will have unfettered access to technology at home but unplugged activities, those that don't require a technical device, are an important part of developing computational thinking skills.

Barefoot computing has created a series of learning together activities and mini missions that can be used to explore different computational thinking skills. These could be used both in class and remotely but may require some printing of resources:

<https://www.barefootcomputing.org/homelearning>

#### BEBRAS

The Bebras computational thinking challenges are a great way of getting your pupils exercising their computational thinking muscles. There is an option to sign your pupils up to take part in the challenge (which runs from 2nd November to 13th November), see here for details: <http://www.bebras.uk/> but there is also the option to have a go at previous years' challenges. The start screen allows you to choose the appropriate age range and then click on each activity. Each activity is set out in interactive multiple-choice style and once the

pupil clicks on their choice, they are given the correct answer to check their work and a clear explanation for the correct answer is provided. 2019 challenges can be accessed without a log in here:

[https://challenge.bebras.uk/index.php?action=user\\_competitions](https://challenge.bebras.uk/index.php?action=user_competitions)

## **CODE.ORG**

Code.org has also put together a range of unplugged activities linked to some of their online code courses as well as curating a selection from third party providers. The activities can be filtered by age, activity type, length etc and could be used both in the classroom and as a self-paced activity at home:

<https://hourofcode.com/us/learn?platform=no-computers>

## **REMOTE CPD AVAILABLE FROM YOUR HUB**

### **FOCUS ON: KS3 FOR NON-SPECIALISTS**

As a primary subject leader have you ever wondered what happens when your pupils move on to the next stage of their education when they leave primary school and move on to secondary school? We think this course could provide a valuable insight for primary computing subject leaders as well as non-specialists who take on the subject in KS3. Consequently, we at Odyssey Computing Hub would like to encourage those teachers who work in Year 6 or who are computing subject leaders to complete this course. As well as looking at the curriculum content, the course will provide an opportunity to discuss and explore the implications for the primary curriculum. The sessions for this particular course will be delivered between 16:00 and 17:00 on the following dates and can be booked for just £35: 9/11/20, 17/11/20, 23/11/20 and 30/11/20

<https://www.stem.org.uk/cpd/477753/key-stage-3-computing-non-specialist-teacher-remote> Voluntary follow up sessions will be made available to support primary subject leaders with computing curriculum design once the course has been completed.

There are a range of other courses available from Primary Programming and Algorithms to Teaching and Leading KS1 and KS2 Computing. For more information please go to <https://teachcomputing.org/courses>

## **ONLINE COURSES (SELF-PACED)**

### **FOCUS ON: TEACHING PROGRAMMING IN PRIMARY SCHOOLS**

If you want to develop your confidence with Scratch as a programming language, this online course is an excellent starting point. It covers the key programming concepts and provides lots of opportunities to practise what you have learnt as well as providing access to some great projects which you could then go on to use with your pupils.

The recommended time commitment is 2 hours per week but it is flexible and free to join.

Find out more here:

<https://teachcomputing.org/courses/CO010/teaching-programming-in-primary-schools>

Remember that by completing any remote course and online course you are already on your way to gaining the nationally recognised Teach Computing qualification.

For more information: <https://teachcomputing.org/courses/CO010/teaching-programming-in-primaryschools>. You will need to login to access this information.

## **SECONDARY**

### **TEACH COMPUTING AND OAK NATIONAL ACADEMY**

Teach Computing and Oak National Academy have provided some excellent resources for KS3 and KS4 all of which can be found here:

<https://classroom.thenational.academy/subjects-by-key-stage/key-stage-3/subjects/computing>

<https://teachers.thenational.academy/programmes/y10-computing>

<https://teachcomputing.org/curriculum>

### **KS3 FOR THE NON-SPECIALIST**

If you have non-Computer Science specialists teaching KS3 Computing in your school then this course may be of interest to them. This course for the non-specialist will allow teachers to explore the subject knowledge required to confidently teach the Key Stage 3 programme of study. The four 1-hour sessions with two

sessions completed asynchronously that make up this course are being offered as twilight sessions after school. The units in this course are designed to give teachers the subject knowledge around key topics such as algorithms, data representation, hardware and programming, whilst also exploring useful and engaging strategies for delivering this content in the classroom.

The course is delivered remotely with live, facilitator-led sessions and are not available for instant access. Please follow the link below for the schedule of dates for each course instance. The course is £35 and your school may well cover the cost. <https://www.stem.org.uk/cpd/477749/key-stage-3-computing-non-specialist-teacher-remote>

## CSA PROGRAMME

The Computer Science Accelerator Programme is a certified professional development programme designed to help equip teachers with the subject knowledge and confidence to successfully teach GCSE computer science. Details of the programme can be found here <https://teachcomputing.org/secondary-teachers>. There are very generous bursaries for schools once teachers complete the programme and pass the test. Over 1000 teachers have now completed and passed the test nationally so why not join the growing numbers?

## CHELTENHAM SECONDARY CAS COMMUNITY OF PRACTICE

We are pleased to announce the launch of a new CAS CoP here in Cheltenham with the help of BCS, but that's not to say that you have to be in a Cheltenham based school to join us. The first meeting will be online on Wednesday 2nd December at 4.30pm. Make a note in your diaries now and more details of how to join the group will be in next month's newsletter. We have already confirmed that Elaine Brown will be able to join us to share what is happening in the world of 'Unlock Cyber'.

## ISAAC COMPUTER SCIENCE

Odyssey Computing Hub has teamed up with the Isaac Computer Science project to bring a wide range of training resources for teachers and their students for A Level Computer Science learning. Isaac Computer Science is a Department for Education project and forms part of the National Centre for Computing Education. The materials have been created by the University of Cambridge and the Raspberry Pi Foundation. Details of the sessions we are offering are outlined below and can be booked at <https://isaacomputerscience.org/>

## DATA STRUCTURES

26th Nov Data Structures: PART 1 Queues, Linked Lists and Stacks (9am to 12pm)

19th Nov Data Structures: **Student Booster Part 1** (5pm – 6:30pm)

20th Nov Data Structures: **Student Booster Part 2** (5pm – 6:30pm)

## BOOLEAN LOGIC

2nd Dec Boolean Logic: PART 1 Logic gates and circuits (5-8pm)

3rd Dec Boolean Logic: PART 2 Simplification and extended activities (5-8pm)

9th Dec Boolean Logic: **Student Booster Part 1** (5pm – 6:30pm)

10th Dec Boolean Logic: **Student Booster Part 2** (5pm – 6:30pm)

## THE UNLOCK CYBER VIRTUAL TASTER WEEK, MONDAY 7- FRIDAY 11 DECEMBER

This event is aimed at pupils in years 8 and 9 and includes a mix of employer-led cyber activities and sessions delivered by leading cyber experts from across the West of England region. Activities will be recorded, for you to stream later. However some of the sessions will only be available to watch live. They will be delivered using MS Teams.

Register now

Register your interest now. Simply send an email to receive the timetable and links.

[Elaine3.brown@uwe.ac.uk](mailto:Elaine3.brown@uwe.ac.uk)

Other cyber events and resources

For details please visit and bookmark the Unlock Cyber website. [www.unlockcyber.com](http://www.unlockcyber.com)

<https://teachcomputing.org/courses>

# COMPUTING AT SCHOOL

## CAS INSPIRE

CAS Inspire is a series of resources, consisting of, live webinars with expert panellists discussing topical computing education matters, in which the audience can get involved. Also featured are videos teaching Computing concepts, podcasts and careers inspiration webinars. For more information:

[https://www.computingschool.org.uk/custom\\_pages/413](https://www.computingschool.org.uk/custom_pages/413)

## CAS AUTUMN EVENT

Following the phenomenal success of the CAS Virtual Showcase in July, Computing at School have organised an autumn event which will take place on 10<sup>th</sup>, 12<sup>th</sup>, 17<sup>th</sup>, and 19<sup>th</sup> November with keynote speakers Anne-Marie Imafidon, Rupert Ward, Mark Martin and Maggie Philbin. Find out more here:

[https://www.computingschool.org.uk/news\\_items/956](https://www.computingschool.org.uk/news_items/956)

## TEACH COMPUTING NEWS AND UPDATES

From the Teach Computing website you can [access news](#) relating to all things computing education in a variety of formats. News articles, blog posts, podcasts and Pedagogy Quick Reads are all featured and provide information on a range of topics that would be of interest to subject leaders, teachers and students.

All courses, delivered by hubs across the country, can also be accessed from [here](#).

## ODYSSEY COMPUTING HUB

Thank you for reading our newsletter. We are keen to provide you with a newsletter which is a useful source of information. Please get in touch with any suggestions for content and any feedback on how we can improve. We would also love to hear about what you are doing. Stay safe and do keep in touch. All the best  
Cara, Sarah and Barry

### CONTACT DETAILS:

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#### TWITTER

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