Teach Computing

Up North

Computing Festival

5th July – 9th July

2021

Come and join us for a jam packed computing festival brought to you by the NCCE Computing Hubs in the North of England. All sessions are fully funded and booking is required using the links below. You are welcome to attend one, or all of the sessions. Please spread the word to colleagues across your school and network. #UpNorthComputing

	9am-10am	10am-11am	11am-12pm	1pm-2pm	2pm-3pm	3pm-4pm	4pm-5pm
Monday 5th July	**Sonic Pi** KS2/KS3 *Learn to program your own piece of music in the text based programming language Sonic Pi.*	**Using Inkscape to teach vector graphics** KS3 *Learn the fundamentals required to use Inkscape when teaching the Y8 Vector graphics unit from teachcomputing.org*	**Sequencing in primary** KS1 and KS2 *Learn about the importance of sequencing the computing curriculum plus tips on how to start this process.*	**Physical computing: Crumbles** KS2 *An introductory session to the Crumble controller, motors and block based programming software.*	**Introduction to developing digital leaders in Primary schools** KS1 and KS2 *Explore the benefits of creating and utilising a digital leader team at your school to support your computer curriculum delivery.*	**A PRIMM approach to teaching Programming** KS3 & KS4 *PRIMM stands for Predict, Run, Investigate, Modify and Make, representing different stages of a lesson, or series of lessons.*	**Assessment using EdTech Kahoot and more….** KS3-KS5 *Creative assessment at KS3 & 4 for engagement and fun.*

Tuesday 6th July	**Vectors, DotProduct and Pygame** KS5 *In this hands-on programming session we will look at vectors, the application of vector dot products and the Pygame library.*	**Unplugged computing ideas** EYFS-KS2 *Unplugged activities are great for teaching computing concepts without a computer if your tech is unreliable and to avoid device distraction.*	**Physical Computing: micro:bits** KS2 *Learn how to start using the micro:bit to teach coding. Introduction to the platforms and resources.*	**Computing and Art** EYFS-KS2 *This session will provide ideas for teaching digital art to all children from Early Years to KS2. Join us and have a go yourself!*	**Scratch for all** KS2 & KS3 *How to use the PRIMM approach and a free Scratch resource to allow all learners to access programming activities.*	**Physical Computing Crumble controllers** KS2 *An introduction to programming a Crumble controller with sparkles and light sensors.*	**Leading Digitally Confident Schools: What goes into a toolkit?** KS1 - 4 *Exploring a range of tools to capture an overview of progress and impact with everything that's digital in school today.*
Wednesday 7th July	**Assembly language - taking it beyond GCSE** *KS4/5* *Ideal for staff who wish to consolidate their understanding and provide context for this topic.*	**How to create and manipulate SQL databases in Python using SQLite** *KS4* *Ideal for staff who want to increase their confidence in delivering practical SQL lessons.*	**Computational Thinking** KS4/5 *In this session we'll look at some of the key problem solving skills including examples of abstraction, decomposition, pattern recognition and logical thinking.*	**Using Blender to teach animation** KS3 *Learn the fundamentals required to use Blender when teaching the Y9 Media - Animations unit from teachcomputing.org*	**Sequencing in primary** KS1 and KS2 *Learn about the importance of sequencing the computing curriculum plus tips on how to start this process.*	**Minecraft what can it do?** *KS2 -KS4* *Ideas for what you could do in the classroom to encourage engagement? Based on a single home edition licence. Also can be used with education edition.*	**"Steganography using JES".** KS4 *Using a version of Python to hide information inside images. If you like code-making and code-breaking, this will be an addition to your skillset.*

Thursday 8th July	**Developing Computational Thinking in the Early Years** *Understanding what Computational Thinking looks like in the EYFS setting. Look at lesson resources, assessment & effective questioning in EYFS.*	**Turtle in Trinket** KS3/4 *Creating a visual noughts and crosses game using turtle coded in Python.*	**JSON, API's and MatPlotLib** KS5 *In this hands-on programming session, we'll look at Python Advanced Types, Web service APIs, JSON and the MatPlotLib Python Library.*	**Secondary Sorting and Searching with Graphstation** *KS3-5* *Graphstation is an application which can be used to visually represent algorithms such as those for sorting and searching.*	**Physical Computing: Crumble** KS2 *Learn how to integrate the Crumble controller across subjects, plus a look at resources and project ideas.*	**Primary Computational Thinking** KS1-2 *Find out about useful resources that take computer science concepts out of the classroom and into real life.*	**Physical Computing: Micro:bit** KS2-3 *Get to know your Microbit. Look at lesson resources, how to use micro:bit classroom, adopting the PRIMM approach and evidencing your pupil work.*
Friday 9th July	**Computing Career Pathways** KS3/4 *Learn about the different computing opportunities and understand more about how the curriculum feeds into the careers.*	**iPads and the Primary Computing curriculum** KS1/2 *Understanding how to integrate iPads into Primary Computing and use them to create an engaging curriculum and Enrichment programme.*	**Encouraging girls into GCSE computer science** KS3 *Explore the big picture with the current Gender imbalance in GCSE computer science between girls and boys.*	**Computing Career Pathways** KS3/4 *Learn about the different computing opportunities and understand more about how the curriculum feeds into the careers*	**Assessing computational thinking in primary schools** KS1/2 *This CPD includes easily applied, practical approaches to assessing the development of computational thinking.*	**SQL for GCSE** KS4 *SQL in GCSE Computing, the basics and using it in the classroom.*	

Cumbria and North East	North West	Yorkshire and the Humber
Cardinal Hume Catholic School Carmel College Kings Priory School	Priestley College The Fallibroome Academy Tameside College Bishop Rawstorne Church of England Academy	Bingley Grammar School Harrogate Grammar School All Saints RC School