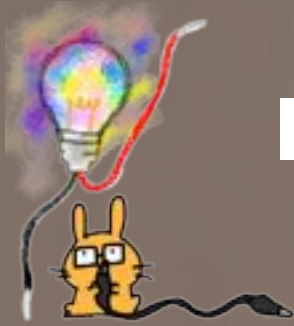# conductive music

Inspire: Create

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Inspire: Create Introduction

Hello! It's Mr. Bert. Here at Conductive Music, we believe in the power of learning through making, breaking and playing, because this is what my colleagues and I enjoy doing in life.

We are artists, scientists, educators, and researchers interested in providing positive role models to children from challenging backgrounds. We want to show everybody that learning through play, without the fear of making mistakes, is truly life-changing.

Over the next few pages, we describe our current provision, divided by year group, with in-person and online options. Since March, we have streamed **a lot**. Should Lockdown be imposed overnight, we are able to stream from your school, a hotel, or our offices in London, with FullHD cameras and hi-quality microphones.

Our workshops are **not** a one off - we developed this strategy during 8 years, 2,500 workshop days, 2,000 teachers, 25,000 students taught and 20 countries travelled. We offer you a 2-day visit, to spark curiosity and interest, but we accompany this with weekly livestreams on Facebook, YouTube and Twitch, to support students throughout the year. In early January 2021 we will launch *STEAMcorner*, a teacher-friendly online learning platform with videos, lesson plans, powerpoint slides and homework sets. Designed for non specialists, this platform is perfect to further the learning experience of all children.

Conductively yours,

Dr. Enrico Bertelli

Year 1 and 2
In person

Content

Exploring the physical world through Arts and Technology is an awesome journey. Our instruments, which work all the time, let us explore sound, electricity, pitch and resistance, through play. Did you know you can play the piano, just by squeezing our ruler-like instrument? And control the computer just by making a pencil drawing? Tough to believe - but easier than playing piano on your arm...oh, we can do that too (but only if covid-19 policy allows it).

Outcome & Legacy

This workshop will cover basic musical elements including relative pitch, rhythm and its connection with physical movement. We are also able to connect this interaction to the basics of electricity, such as conductivity and resistivity (yup, the little ones understand it too), through the free app DotPiano.

Afterwards, you will have free, unlimited access to 60 of our one-hour projects, as well as a free trial of our members area, which includes 12 videos, lesson plans, powerpoint slides and printable **homework**.

Tech requirements

- One laptop every 2 students (let us know if tablet)
- Chrome browser updated
- Headphones, if available
- Paper and art pencils (6 or 8B)

Structures

We will deliver 4 x 2-period workshops for up to 30 students each.
Day 1: Workshop with Group A, disinfection, Group B, disinfection, home
Day 2: Same, but for groups C and D

Year 1 and 2 Online

Content

Picture a parent and child, on the couch, following a lesson on Zoom, whilst having fun making music together. We have researched many, child-friendly, interactive music-making apps and have tested them thoroughly in 220+ online workshops since March Lockdown. We can transform digital drawings into loops, teach spelling through sound, create rhythms out of words, and even compose a song in real time, together!

All of these apps are free, and forever will be, and they are the perfect creative companion for the tough lockdown moments.

Watch here.

Outcome & Legacy

We explore relative pitch and sound quality through digital drawings. We improve spelling, by transforming words into sounds, and construct rhythms by using phonics. The free apps are usable by children at home, or in class on the smartboard/tablets. We can deliver simultaneously to key-worker children in class and those at home. Afterwards, you will have unlimited access to 60 of our one-hour projects, as well as a free trial of our members area, including videos, lesson plans, powerpoint slides and printable homework.

Tech requirements

- Laptop or tablet (some things possible with phone)
- Updated browser, or free app installation
- Headphones, if available
- Parental help.

Structures

Online workshops allow us to reach all your cohorts together.

Day 1: 45-60' on Zoom for Y1/2, then one more for Y3/4 or Y5/6

Day 2: same groups returning for a follow-up session

Content

It's electronic, it sounds awesome and you can make unlimited experiments with it, it is the MakeyMakey. We started using it 8 years ago and, 25,000 students later, we are yet to get bored. Once you have learnt the basics of electricity, touch it to make great songs, connect crocodile clips to explore the physical world, and then connect our rulers...WARNING: You will never look at a ruler the same way again.

You can also control our interactive musical band on Scratch which you can use (Y3) or re-code (Y4). **Watch here!**

Outcome & Legacy

This workshop teaches the principles of electricity (charges, conductivity, resistance) by gamifying complex scientific concepts through music. We build a musical instrument and discuss scales, relative pitch and rhythm. In the last part of the workshop, we create a song by interacting with Scratch, and learn creative coding, for a wonderfully customised, digital music band.

Tech requirements

- One laptop every 2 students (let us know if tablet)
- Chrome browser updated
- Headphones, if available
- Your Scratch accounts, or ours.

Structures

We will deliver 4 x 2-period workshops for up to 30 students each, over 2 school days.

Day 1: Workshop with Group A, disinfection, Group B, disinfection, home

Day 2: Same, but for groups C and D

Year 3 and 4
Online

Content

You have probably heard of Scratch, a browser-based coding language - the orange cat.... As it turns out, Scratch has incredible musical potential, and it works on tablets, laptops and phones. In this lesson we design a digital musical band: we create and animate characters, select instruments, notes, rhythms and even chords. It can be as simple as tapping to listen to a melody, or a wonderful sonic animation of a drawing. It is an enticing combination of Music, Creative Coding, Digital Literacy and the Visual Arts, through a proper STEAM approach.

Outcome & Legacy

We use Creative Coding to unlock the Musical potential of Scratch. By combining these blocks of code, we teach logical processes, troubleshooting, coding and design thinking. The musical learning includes pitch, rhythm, melodies/chords and even loops. The Visual aspects include basic design and animations.

Afterwards: unlimited access to 60 of our one-hour projects, as well as a free trial of our members area, which includes 12 videos, lesson plans, powerpoint slides and printable homework.

Tech requirements

- Laptop or tablet (some things possible with phone)
- Updated browser, or free app installation
- Headphones, if available
- Parental help for some Y3s.

Structures

Online workshops allow us to reach all your cohorts together.
Day 1: 45-60' on Zoom for Y3/4, then one more for Y1/2 or Y5/6
Day 2: same groups returning, for a follow-up session

Year 5 and 6
In person

Content

Sometimes in the March of 2015, the Micro:Bit was born. We jumped right at it, and designed many wonderful experiments. It is a little card, packed with useful sensors, which can be easily coded through a website, very similar to Scratch. Thanks to the MIDI language, the Micro:Bit can be transformed in a brilliant digital musical instrument. We just need to plug-in the USB, carry out some fun creative coding experiments, and then start composing with SoundTrap or BandLab, both browser-based, free music making environments.
Watch here.

Outcome & Legacy

This cross-disciplinary workshop starts by re-programming the Micro:Bit and covers LEDs, analog/digital sensors like temperature, and accelerometer, then loops, variables and logic. We do this to 'teach' the Micro:Bit which notes to play, and discuss pitch, rhythm, and chords. The students will decide what to play, but also how to play: are you strumming it, moving it in the air, pressing buttons? They will be able to compose, record and export their work. Afterwards, you will have free access to all our courses, to lead your students in taking this experience further.

Tech requirements

- One laptop every 2 students (let us know if tablet)
- Chrome browser updated
- Headphones, if available
- SoundTrap, BandLab accounts (or we create free ones)

Structures

We will deliver 4 x 2-period workshops for up to 30 students each, over 2 school days.
Day 1: Workshop with Group A, disinfection, Group B, disinfection, home
Day 2: Same, but for groups C and D

Year 5 and 6
Online

Content

Video games: all of your students absolutely love them! This is why we researched a child-friendly, easy to use, browser-based, block-coding environment to develop our Musical Video Games. We use the basic principles of creative coding to program a game, whose main purpose is to create music: you may collect notes, shoot chords, stomp on melodies or aim at harmonies. Free and browser based, your students' work is anonymously stored on cloud accounts. You can access our online courses, for free, to further their learning throughout the year! **Watch a taster here.**

Outcome & Legacy

The workshop will introduce the basics of block-coding: sprites, variables, arrays, collisions, loops and logic. These blocks will be used to create the musical interactions, which will include: notes, frequencies, rhythm, chords and soundwaves. All codes are stored anonymously on the Microsoft cloud, so that you can continue working with your students. You will have free access to our 60 one-hour projects, as well as a free trial of our members area, including videos, lesson plans, powerpoint slides and printable homework sets.

Tech requirements

- Laptop or tablet (some things possible with phone)
- Updated browser, Chrome or Edge
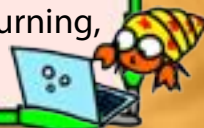- Headphones, if available
- Children can work independently

Structures

Online workshops allow us to reach all your cohorts together.
Day 1: 45-60' on Zoom for Y5/6, then one more for your Y3/4 or Y1/2
Day 2: same groups returning, for a follow-up session

They say about us

The children were really engaged and amazed by the workshop, they loved making fruit pianos and learning about music, ICT and science was so much fun...even the teachers enjoyed themselves! Thank you!

Jane Boyd
Music Teacher
Hill View Infant Academy

This workshop awakened the pupils' awareness of how technology can create music with the physical presence of instruments; it was an excellent opportunity to enhance their coding skills too.

Year 6 class teacher
English Martyrs Primary

Many thanks for the fantastic course the other week - My son was excited to show us what he'd learned each day and practised the coding for many hours after each session. Without doubt the highlight of lockdown!!

Parent,
Cheshire East

I liked when we could make the music go low and high by forming shadows.

Year 5 student

Our favourite part was when we made our own music and we learnt a lot!

Year 4 student

Absolutely fantastic course and idea, thank you! My three children really enjoyed it. They are very inspired.

Parent,
Wiltshire

The Conductive Music programme was a thoroughly enjoyable experience. It created a buzz amongst the students from the outset and was sustained for the whole two days. Students were totally engaged and were proud of what they had achieved. It has definitely provided them with a memorable experience and helped develop new and existing skills for their futures. Thanks so much Chani/Conductive Music.
Nathan Wing, Head of Music, Emerson Park Academy.

It always amazes me that students do end up designing, creating and programming their own instruments in the space of 6 hours. Our students always get so much from this workshop as it opens them up to so many different cross curricular subjects. Students really get to grips with design, programming, science, and of course music. Our students get the opportunity to "wear so many hats" during the workshop that they all get to work on a particular skill area that really interests them. How all their work comes together at the end always fascinates me!
Emma Sees , Head of Music at Harris Academy Rainham

Conducitive Music brings a new dimention to our offer for children in Camden, and attracts a different group to our Service. The courses have been well-received and we have excellent feedback from parent about the experience.

Deborah Rees
Camden Music Service

I really enjoyed creating my own melody on our own instrument!

Year 9 student

It was a really fun and educational experience! I am so glad I did this course as it has also improved my coding skills a lot more !

Year 8 student

I liked experimenting! The trial and error which resulted in our finished product, was fun to play with.

Year 7 student

Year 7 and 8
In person

Content
You probably have 100 **Micro:Bits** already in the school, but they rarely make it out of the IT or Science department. As a STEAM company, we thrive by combining Arts and Sciences, and that is why we come to you with this idea: let's use creative coding and sensors, to create unique musical instruments; let's inspire your students to make music in the most amazing way possible, by designing their own interactions, choosing notes, chords, rhythms, and by composing and recording everything, for free, on **SoundTrap** or BandLab.

Outcome & Legacy
This cross-disciplinary project leverages the power of the Micro:Bit by using its sensors to make music. We will block-code temperature, light and tilt sensors, tricking them into playing our notes. We will then create the musical interactions with melodies, rhythms, and even chords, by learning the principles of a Digital Audio Workstation through composition, recording and playback. Afterwards, you will have free access to all our courses, including videos, lesson plans, powerpoint slides and homework sets, to take this experience further.

Tech requirements

- One laptop every 2 students (let us know if tablet)
- Chrome browser updated
- Headphones, if available
- SoundTrap, BandLab accounts (or we create free ones)

Structures
We will deliver 4 x 2-period workshops for up to 30 students each, over 2 school days.
Day 1: Workshop with Group A, disinfection, Group B, disinfection, home
Day 2: Same, but for groups C and D

Year 7 and 8
Online

Content

Video games are Among us. As the epitome of the STEAM approach, they use music, sound and visual arts, coding, physics, science, acting, storytelling, marketing (limited word count, sorry!). We had a huge success with our Musical Video Game Summer School (July 2020), boosted it for October half term and have now got the perfect workshop for your students. Free and browser based, your students' music games are anonymously stored on cloud accounts, so that you can use our courses, for free, to further their learning throughout the year! **Watch a taster here.**

Outcome & Legacy

Our goal is to create musical interactions and to understand notes, frequencies, soundwaves, chords and loops. In order to make these events happen, digitally, we use block-coding, to learn how to deal with: sprites, variables, arrays, collisions, loops and logic. All codes are stored anonymously on the Microsoft cloud, so that you can continue working with your students. You will have free access to our 60 one-hour projects, as well as a free trial of our members area, including videos, lesson plans, powerpoint slides and printable homework sets.

Tech requirements

- Laptop or tablet (some things possible with phone)
- Updated browser, Chrome or Edge
- Headphones, if available
- Students can collaborate on the same project

Structures

Online workshops allow us to reach all your cohorts together.
Day 1: 45-60' on Zoom for Y7/8, then one more for extra Y7/8 or 9/10.
Day 2: same groups returning, for a follow-up session

FAQ

Why is it free?
Nothing is free. We started our campaign on Jan 11th to partner up with 18 Music Education Hubs, and received our Arts Council England funding response on October 7th: that is what made it free to 10,000 students and 2,000 teachers ;).

Typical structure of the day?
Day 1: 2-period session for Group A, disinfection, 2-period for Group B, disinfection, home. Day 2: same, but for Groups C and D.

Location?
In class. We will require the internet, smartboard/projector and speakers. We can also stream from a separate room into the classroom, if required by bubble. If in Lockdown, we can stream to reach key-worker children in school and those at home. They only require a tablet/laptop, the internet and headphones.

Which students and how many?
This funding prioritises those from challenging backgrounds. Can be a full class. We aim to reach 100 students per school **minimum**.

We are a Special School…
Each school is unique in its own way, so we should have a quick Zoom catchup. Generally, we suggest delivering workshops targeted at students 2-3 years younger, and have fabulous options for more complicated situations.

DBS?
Certainly, all our staff have it, together with Photo ID.

Risk assesment

We closely monitor the fast changing of safeguarding and health & safety policies.

We consult with our Music Education Hub partners to ensure that our approach is in-line with local procedures, and monitor advice from Music Mark, the Musician's Union and the Incorporated Society of Musicians.

Our staff will discuss regulations and best practices with you prior to our visit, and on the day, promptly adapting to changing requirements.

You may also check our GDPR and Online Learning Policy

The Team

Dr. Enrico Bertelli

Dr. Emily Robertson

Dr. Jack White

Chani Jagdev

Dr. Yui Shikakura

Emma Williams

Fanny Martin

Preethy Ann Kochummen

Laura Sampson

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#STEAM

corner