

OpenUK

OpenUK New Kids' Competition 2020 – Teachers' Guide



Introduction

This challenge aims to inspire children to learn and use open technology by creating and demonstrating an idea for an innovative product; they will build and demonstrate their idea using an existing open source product, the open hardware and open source software in the MiMu Glove including a micro:bit.

Children participating will each receive a MiMu Glove kit and the option to participate in the OpenUK Course, with weekly 10-minute fun, animated lessons and activities being released at weekends, over 10 weeks from May (date bc). These are being designed by Award Winning educationalist David Whale and made possible as with the competition, by the generous sponsorship of RedHat.

The competition will run through September.

By working collaboratively, teams of 4 children will design and build something new and creative and learn how open technology enables innovation through collaboration. This is the first of many OpenUK awards and kids' competitions.

This teacher's guide gives you an overview of the process and the milestones along the way. It also covers the requirements of the competition and introduces the tools, support and infrastructure on offer to your school or group and children.

The competition is promoted and supported by OpenUK, the industry advocacy group for Open Technology in the UK. Learners will be provided with suitable materials introducing the key ideas and practices behind open source, and they will present their findings and thoughts on using open technology.

1. Registration

The competition is open to any school or community group and is targeted at Key Stage 3 (or equivalent) pupils (11-14 years old) but any children in Secondary education at the time of registration and who will continue to be in September may participate.

The registration process will be handled through our partner organization, "The Learning Partnership". Communication will be managed and tracked, and video and document resources will be available through their Dendrite Platform run by The Learning Partnership. All teams are required to sign-up to that platform to register.

Kids will be able to discuss ideas and activities with experts during the Competition phase in September and each team will be required to ask at least one question.

Help is available as required within the structure of the competition rules will be available from The Learning Partnership and OpenUK, by contact via the Platform.

Registration will be open to the first 100 schools who apply within the regional caps on entrant numbers. Each school or community group taking part will receive the MiniMu glove kit, inspired by Double Grammy Award Winning Singer, Imogen Heap, including a BBC micro:bit and supporting materials, required to compete.

Each school or community group will be required to put together a team of 4 learner kids who all meet the qualifying criteria and 1 supervising adult.

2. Equipment and Course

Each child in the team of 4 in a group that registers will receive the MiniMu glove kit including a BBC micro:bit and supporting information from Pimoroni (the glove kit manufacturer) following registration closing on 17 May. Teams who are accepted into the competition will be notified of how to provide the address details to Pimoroni who will send kits direct to participants or if preferred 4 kits may be sent to a school for the team. It may not be possible to mix these options.

Learners will be required to assemble the glove kit and to learn how to use it and the BBC micro:bit. Assembling the kit will be covered in episode 1 of the course and video guidance will also be available on the Platform.

The teams will have exclusive access to the first run of the course. It comprises of 10 weekly 10-minute animated lessons, with activities using the glove and exploring open source. They will be released weekly on weekends from late May. Completing the course is very much encouraged but not compulsory.

By doing this, reviewing materials on the Platform and following the course Kids will become familiar with open source through these online resources. They are also encouraged to do their own research.

3. Competition

The main focus of the competition will be for learners to showcase their creativity in using the interactive MiniMu glove.

The MiMu glove on which the MiniMu glove is based, has been developed by the double Grammy winning artist Imogen Heap. It is used by many other artists, for example Ariane Grande whose tours have featured it. Imogen will participate in the competition as an expert.

It is not expected that learners will have time to delve into the detailed programming and technology behind the gloves, though this will be given as background information and they are encouraged to explore the device in more depth.

The main objective is for them to use the glove as a platform to inform their ideas about how it can be used in a performance.

Teams must collaborate in the spirit of open innovation and create and upload 1. a short video diary of their experience, 2. a creative video proposal for the glove, and 3. a video explanation of why open technology is important (each of 3 videos should be 1-2 minutes and must not exceed 2 minutes) for judging.

Schools are expected to have the facilities and knowledge to produce simple videos suitable for upload to the Dendrite portal. There are no other requirements as to the video format.

The competition is about creativity and therefore it would be an advantage for learners to have access to materials to create appropriate props or backgrounds for their suggested performances in the video.

- Dates

The dates for the competition are:

17/5/20 – Registration Closes and accepted registrations notified

Late May – Course runs weekly for 10 weeks

1/9/20 –

Competition Begins

30/9/20 –

Competition Ends

01/10/20 – Final uploads day – all must be uploaded on this day by supervising adult

20/10/20 – 5 Regional Winners and Overall Winners announced (prizes mailed out)

For the performance in the videos, the groups can select and use a piece of music created for or by them, for example they could work with students in the school who are studying higher level qualifications in music. It is not a requirement that the piece includes music.

They will use the gloves to create a piece of performance art with the multimedia dimension the gloves offer.

Videos will be mixed and used by OpenUK in various formats and may be included in social media and OpenUK Museum Exhibitions amongst other uses. Media consent to be obtained by supervising adults.

- Structure

There are 5 Regions for the competition and 1 team from each region will be selected based on Challenge Scores and the judges' view of their video submissions as Regional Winners in addition to an overall Winner. Judges' decision is final. No correspondence will be entered into.

Winners will be announced at the OpenUK Awards on 20 October.

Unfortunately, due to Covid 19, no participant travel is included or required in the New Kids' Challenge.

The five regions are:

- England – South, 30 places;
- England – North, 30 places;
- Northern Ireland, 10 places,
- Scotland, 20 places; and
- Wales, 10 places.

Each team will produce for the competition:

- a creative use of the glove
- a video explaining some benefits of open source
- a competition diary

They will need to submit this to the Dendrite web site on 1 October for consideration.

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- Judging

Each team will be judged against 5 criteria for a total mark of 75 points and up to a further 75 points at the judges' discretion regarding the videos. The team with the highest score in each region will progress to the final. All team submissions and scores will be shared publicly on the Dendrite platform and may be used in whole or in part by OpenUK.

The categories and marks are:

1. Assembly of the Glove and support materials – 20
2. Keeping a diary of the process – 10 points
3. Learning to use the glove – 25 points
4. Ask an expert a question – 20 points

The judging panel will consist of experts in creativity and technology from OpenUK and its partners, one of whom will be the deciding judge in case of similar scores and outputs. Judges' decision is final.

- Prizes

Each member of the winning Regional teams will receive a voucher and the members of the Overall Winning team will receive double the value of voucher.

Each school in the regional final will receive a regional plaque which they can put up in their school foyer to show their participation and finalist placement in the 2020 challenge.

The Regional Winning schools or groups will receive plaque as will the Overall Winner to show they were Regional or the overall winners for 2020.

The Kids Competition trophy can be loaned to the school for 6 months but will be displayed permanently as part of the Open UK exhibition that is being organised by the “OpenUK Museums Committee” and presented to future winners engraved with the name of the winning team/school.

4. Process

It would be useful for each team to make a small series of vlogs/diary entries to show the process of their activities and how they developed each stage and overcame any issues as they progress to make their video diary submission easier.

4.1 Enabling the Glove

Each glove kit will be delivered with the basic set of instructions required to get it to function; a BBC micro:bit is included.

It is expected that teams will be capable of understanding and implementing these instructions and to demonstrate that they can carry out the basic functions of the glove in order to participate further in the competition.

Episode one of the Course focuses on making the glove. Further video resources will be available in the OpenUK space on the Dendrite platform.

4.2 Learning to Use the Glove

The Mini Mu glove comes with an instruction poster detailing how to sew and assemble it, and a small sample program showing how movement of the glove can be used to play sounds or music. There are also instructional videos on the Pimoroni website showing how the glove can be used.

4.3 Creating the Entry

Once the children have assembled and experimented with the standard glove, ideally following the OpenUK course, they will have all the information and experience they need to come up with some ideas for how it could be further extended and used.

They should sketch out some ideas that allow the glove to be used as part of an artistic performance, or as tool to allow people using the glove to communicate or express themselves artistically. The glove

4.4 Video Diary

A key aspect of this competition is for children to experience the power of collaboration, both within their team and as part of building something new from a provided open source idea/product.

The final output is obviously a very important element, but the journey will also be important to the judging panel. Each team should create a series of 3 short (1-2 minute and no longer than 2 minute) videos to explain and discuss key milestones in their journey.

This will help the judges more clearly see the overall shape of the entry, but also allow them to see the thinking process and creative story of each team as their ideas and actions unfold. This video diary will also be important in showcasing what the teams understand and are trying to achieve, even if they don't achieve it.

Collaboration is a critical element of the design and development process and central to Open Source practices and philosophy as reuse and enhancement of existing ideas and technology.

The Dendrite platform will allow the upload of these video diaries for judging and sharing along with the creative video and importance of open source video by the teacher or supervising adult on 1 October.

4.5 Engagement-Ask an Expert

Each team is required to ask an expert at least one question via Dendrite. There are a range of experts including Imogen Heap and people from Open UK and other partners. Teams are expected to use this forum to ask at least one question and to develop their understanding of the project and the wider aspects of it, especially the Open Source nature of the device, by paying attention to the other teams' questions and responses but there is no saying which expert will respond.

Teachers or adults in charge of teams should assist team members in this process if they are shy or unsure of what to ask.

Questions may be wide ranging but should not be specific to any one expert as different experts may be available at different times to review and answer questions.

5. Feedback/Plenary

An important part of this competition is to gauge young people's experience of engaging with Open Source technology and experts, and it is important that we get some feedback and thoughts from the participants about the whole process. This information will be used to inform future competitions and activities from OpenUK so they are encouraged to be frank and critical as required. This extends to the teachers managing the teams and how the experience worked for them and their schools, as well as suggestions for other competitions and activities.

OpenUK

Contacts

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OpenUK's purpose is to promote UK Leadership of Open Technology.