

„21st Century Schools”

Coding Challenge 2020

About the Programme

„21st Century Schools” Programme is a three-year education programme, implemented by the British Council and funded by the UK Government. The Programme aims to develop 21st century’s core skills to over one million old students (from 5th to 8th grade) across the Western Balkans. It will involve all primary schools in the region.

To accomplish that, the programme will expose teachers to a comprehensive training programme and enable them to effectively teach critical thinking, problem solving and coding skills in the classroom. Furthermore, the programme will target school leaders to enhance their capacities to lead, promote and implement critical thinking, problem solving and coding skills across the curriculum in their schools.

Run in partnership with the relevant educational institutions in each country, the programme will allow students to learn in a fun, interactive and innovative way. As well as learning critical thinking and problem solving skills, students will learn practical coding skills and have the opportunity to practice coding by using micro:bit - pocket-sized computers which can be programmed and used across subjects to solve every day problems.

About the Challenge

As a part of the 21st Century Schools Programme, British Council Serbia is organizing a coding challenge for all 5th to 8th grade students from participating schools.

The challenge aims to reach children across Serbia and inspire young people to solve real-life problems in their schools and communities using physical computing. The Challenge will use the BBC micro:bit device to allow children to come up with a project to respond to Sustainable Development Goals and explore solutions on the issues they face in their everyday life.

The coding challenge is organized in partnership with the Ministry of Education, Science and Technological Development.

Coding Challenge

Coding challenge is open to all schools who have participated in the second cycle of “21st Century Schools” Programme, implemented by the British Council, from September to December 2019. Please see *Annex 1* with the list of schools eligible to participate.

One school can apply only with one entry to the coding challenge. If a school has more projects, a school challenge should be organized within the school, where the school board selects the best project with which the school can participate in the coding challenge.

The coding challenge opens on February 4th, 2020 and closes on February 18th, 2020. Entries are submitted via the British Council website in Serbia.

Entrants may work in a team of two members.

All students (5th to 8th grade) from eligible schools are encouraged to be a part of this competition. The British Council is committed to equality, diversity and inclusion.

Coding Challenge Regulations

Projects will be sent via an online entry form and the ones which qualify will then be evaluated against the evaluation criteria.

Qualification Criteria:

In order to qualify for evaluation, entrants are invited to submit the following:

1. **Contact details** – as specified in the registration form
2. **Competition Privacy Notice and Consent form signed:** Annex 2
3. **Written submission:** Annex 3 – short description of the project, what issues the project is addressing, how will it help the students, their schools or communities? How is the project related to Sustainable Development Goals (The project description should be submitted in a Word document. Pictures of hand-written papers will be scored with minimal points).
4. **.hex file upload. The entrants must submit the code.** (The code should be submitted in a format that can be checked and tested for its functionalities.)
5. **Up to 5 photos of the finished physical project.** (The photos should only represent the project and not children or the environment around).

All the required documents are supposed to be zipped together in one folder, and whole folder cannot be bigger than 5MB due to the restrictions of the platform they are being uploaded to.

Evaluation Criteria:

The following criteria will be used to evaluate the entries:

- **Purpose of the project** – What is the project aiming to achieve (*reference to written submission Q2*);
- **Overall impact of the idea** – Sustainable Development Goals: What is the change your project aims to achieve? How will it affect the community? (*reference to written submission Q3 and Q4*);
- **Originality and creativity in solving a problem** related to Sustainable Development Goals – How will you approach solving the problem in a unique way? (*reference to written submission Q5 and Q6*);
- **Technical complexity of the code** - Is the product functional? (*reference to written submission Q7*); (Annex 4: Rubric with specifications on technical complexity of the code)
- **Ability to follow the guidelines as set out in the Competition Rules.**

Judging Process

The Challenge will be judged in three phases by ICT professionals selected by British Council.

- Phase 1 – initial shortlisting of entries submitted online
- Phase 2 – 20 shortlisted online entries will be invited to participate in a face to face Coding Challenge
- Phase 3 – selection of 1 winning team and 2 runner ups

Phase 1 judging

- Entries will be uploaded via application form on the British Council website and will be evaluated and scored against the qualification criteria. Any incomplete entries will be removed.

Phase 2 judging

- Eligible entries will be scored against the evaluation criteria
- Judges will shortlist 20 best entries to be put forward for the phase 3 of the competition - the live coding challenge.

Phase 3 judging

- The coding challenge will take place in Serbia and accommodate all the 20 shortlisted competitors. The event will take place in March 2020.
- Professional ICT Judges will evaluate the students' work against the evaluation criteria, and, in addition, the competing teams will need to prepare:

- 5 minutes presentation of the micro:bit project in a format of your choice, and 5 minutes answering questions related to the project
- Present the code used to solve the problem using micro: bit

The judges will select and announce 1 winning and 2 runner-up teams of the coding challenge. Only the winning team and the first runner up team will be eligible to participate and present their project in English language at the regional coding challenge which will be held in one of the Western Balkan countries, in April 2020. The winner team from the regional coding challenge will participate in Bett Show, London, UK.

Phase 2 and 3 judges will use a scoring system (1-5) for each criterion. In the event of tied final scores, the judges will choose a shortlisted/winning entry based on the overall ability to meet the challenge brief. The judges' decision is final.

Prizes

1st winner team: will receive gadgets to be used with micro:bits for their school and participate at the regional coding competition.

2nd runner up: will receive gadgets to be used with micro:bits for their school and participate at the regional coding competition.

3rd runner up: will receive gadgets to be used with micro:bits for their school.

Timeline of the coding challenge

Date	Action
FEBRUARY 2020	
04 February	Online entry challenge information - published web update
04 – 18 February	Coding challenge submissions
29 February	Phase 1 judging: initial online entries shortlisted
MARCH 2020	
01 March	Phase 2 judging: Up to 20 shortlisted entries selected
Mid-March	Phase 3 judging: face-to-face event where coding challenge winner team and 2 runner up teams are selected and announced
April 2020	
	Regional coding challenge: regional winners selected

Annex 1: List of eligible schools

Annex 2: Competition Privacy Notice and Consent form

Annex 3: Written Submission template

Annex 4: Rubric with criteria descriptors on technical complexity of the code
Annex 5: Competition Rules

Do your:bit challenge?

If you are participating in the coding challenge and are interested in participating with the same entry in 'do your:bit' global challenge, then your entry for coding challenge should be in English and in line with the **SDG goal 14** and **SDG Goal 15**.

Do your:bit is a micro:bit challenge that challenges children and teenagers all over the world to get creative and invent a solution to SDG 14 Life Below Water and SDG 15 Life On Land using the micro:bit. Children with the winning ideas will be awarded a fully funded trip to London with their parent/guardian, funded by the Micro:bit Educational Foundation. **This challenge is open to all children age 8-14.**

Do your bit challenge is opening on 16th September and closes on February 28, 2020. Regardless if you participate in the Coding Challenge or not, you are eligible to participate in this challenge. Do your bit challenge is led by the Micro:bit Educational Foundation and supported by British Council, for more information, check Do Your Bit Challenge website.