GOOD PRACTICES

1	Title	*STEAM courses for children*
2	Country	*Bulgaria*
3	How is/was it promoted?	- as a part of a research programme - as a part of a private initiative
4	Context of implementation	*The context where the best practice was developed* Ⅹ large city ☐small city ☐village
5	Goals of the activity	*To prepare the future generation for the future.*

6	Description	*A detailed description of the practice (500 words), describing:*
		
		    a. **Content** of the educational activities carried out *(what participants did/are doing)*
		At Steam Powered Kids the team considers that the STEAM approach is particularly useful for children at primary school level, as it creates a love for studying from an early age and teaches a desire for lifelong learning. Besides STEAM, they also place a focus on entrepreneurial and financial awareness skills, which are considered necessary for the children in the process of their development and their successful professional realization. The trainings are suitable for children and adolescents aged between 7 and 18 years old. The materials, which the organization uses are reliable, flexible and economically replaceable microcontrollers. They use more than 50 sensors, compared to Lego (only 6), and Arduino or Espressif microcontrollers.
		    b. **Main Steps**
		The children need to select a level first, beginner or advanced and one of the available different courses with various difficulties. They can pick from robot-engineering, make your own drone, 3D stop motion animation, 3D modelling and 3D printing. Tutors with the relevant expertise then work directly with the children on the premises of the organization.
		    c. **Theories,** on which the practice was based on
		
		At the basis of STEAM activities promoted by the organization is learning by doing and by experimenting, through experiences. They encourage the children to work in teams and to communicate with each other. They encourage creativity and individuality by following the principle that it is not the academic knowledge that is

		most important, but the ability to think and know where to look for the necessary information.
7	Implementation choices	*Write a brief presentation of the best practice (max: 500 words) by referencing to:* a. Target groups: children and adolescents aged between 7 and 18 b. Other participants in the activity, besides the promoter and the target groups: no, only Steam Powered Kids: https://steampoweredkids.bg c. Duration of a standard session/activity: the organization offers both one-day activities, as well as long term courses with 1 hour sessions d. Number of sessions/activities: 20 sessions e. Teaching methodology, if applicable: STEAM f. Type of assessment and tools used to identify the benefits/progress: not reported
8	Materials	*The various tools and instruments required for experimentation and laboratory work (look up STEM laboratories), as well as artistic materials, required for design, but also for various one-day programmes.*
9	Who runs the activity	☒mentors ☒an organization/institution ☐a school ☐an informal group ☐an NGO ☐other
10	*Benefits and results*	*(max: 500 words)* a. The benefits of this best practice for the target groups Children ready to experiment and to expand their curiosity and their technical skills, prepared to be the innovators of the future. b. Community/social impact Improved chances for social progress thanks to empowered gifted young people. Also, parents who consider these programmes as a second chance for their children, who are outsiders in school, doing below average and not able to bond with their peers or to communicate with their teachers.
11	Relevance for the GATE Project	*(max: 500 words) (see index of methodological material)* **a. Did the practice use Socio-Emotional Learning and/or the STEAM approach?** *The approach uses STEAM at its core – directly with the children.* **b. Did the practice aim to increase the 21st Century Skills?** *According to the organizers from Power Steamed Kids the courses they deliver develop: logical thinking, creativity, entrepreneurial thinking, team work, decision making, problem solving and communication (soft) skills.* **c. Was the practice following certain inclusive principles, such as Universal design for learning for example?** *The children learn programming, using electronics and hardware, 3D modelling and design, aerodynamics, laws of physics – knowledge delivered in many various ways, always explaining the reason and the purpose and allowing the children to express their results and achievements in multiple forms.*
12	Website/E-mail /Other	*https://steampoweredkids.bg*

contact info + References, if any	