STEM School Label - Action Plan

Action plan submitted by Ramazan Burak Kahyaoğlu for Kepez ilkokulu - 19.02.2025 @ 14:29:22

By submitting your completed Assessment Form to the STEM School Label portal you have taken an important step towards analysing the status of your School's STEM Strategy. Congratulations! Please read through your Action Plan carefully to see what you can do to improve STEM activities further in your school. The Action Plan offers useful advice and comments, broken down into 7 key areas: Instruction, Curriculum implementation, Assessment, Professionalisation of staff, School leadership and culture, Connections, School infrastructure.

Instruction

Personalisation of learning

Great job! To go further on the personalisation of learning, learn more about flipped learning. Flipped learning involves the use of digital technology, such as video, to provide direct instruction on new concepts outside of the classroom. A study from the United Kingdom reveals the main benefits and challenges of this approach in teaching and learning mathematics. More info about this study at: http://www.scientix.eu/news/news-all/news-detail?articleId=454517

Problem and project based learning (PBL)

That's amazing! Please also consider sharing your experience at the STEM Discovery Week: http://www.scientix.eu/stem-discovery-week

Inquiry Based Science Education (IBSE)

To go further in IBSE STEM education, follow this MOOC! Asking questions is a vital part of any learning process, and within the life sciences there is certainly a lot to explore! Inquiry-Based Science Education (IBSE) is beneficial for many reasons and not only for students, but teachers too. It is primarily a shift from the mere passing on of information, to the stimulation of students' curiosity and motivation for them to inquire. IBSE allows students to be in control of their own learning process and acquire knowledge in a more interactive way. On the other hand, IBSE methodologies give teachers the opportunity to present the curriculum from a new angle and to follow students' development on a unique scale. This way, inquiry-based teaching makes the classroom a space of curious learning and more flexible teaching. The Inquiry-Based Teaching in Life Sciences MOOC is meant to enhance life sciences teachers' pedagogical competences and practices, and improve their conceptual understanding of the life sciences to help them further establish and disseminate IBSE. More info here: http://www.europeanschoolnetacademy.eu/web/inquiry-based-teaching-in-life-sciences

Curriculum implementation

Emphasis on STEM topics and competencies

Well done! Publish your results! And to jump to a new level: relate your activities out of the school with ESA competitions: https://www.esa.int/Education. The best way to close the circle. And there you will find a lot of useful resources to enrich your complementary activities.

Interdisciplinary instruction

Perfect! Try to define a framework for this kind of activities where other schools can learn from your experience. Now, maybe you are interested (if you weren't before) in Citizen Science, to involve the community in your projects (http://www.citizenscience.org/) .

Contextualization of STEM teaching

Congratulations! This approach seems to be the ideal one! In fact, in conjunction with the collaboration of STEM teachers with scientific, educational, social and labour organisations, the outcome of STEM teaching to students will reach high levels of effectiveness. Don’t forget to share your experiences at Scientix blog http://blog.scientix.eu/

Assessment

Continuous assessment

We are glad to hear this! Maybe you can share your experiences and good practices in a blog article! This document can give a good summary of good assessment practices: http://colab.eun.org/c/document_library/get_file?uuid=6481260d-0e05-41a0-ac8f-535e4b5c5536&groupId=5897016

Personalised assessment

Well done! Your school can also become an example of student-centred learning, which is introduced in this video: https://www.youtube.com/watch?v=e6ieXLVCss4

Professionalisation of staff

Highly qualified professionals

Way to go! Educational technology does matter. Read the article here: http://www.mossfreestone.com/2017/11/30/why-ed-tech/ to get inspired! And afterwards why not share your story on the Scientix blog: http://blog.scientix.eu/

Existence of supporting pedagogical staff

Way to go! Why not share your experience on the Scientix blog http://blog.scientix.eu/

Professional development

Great! The existence of an organised system of information, support and inclusion of students in order to get acquainted with STEM jobs in the labour market is an ideal educational action. Do not hesitate to share your

experiences at the Scientix blog http://blog.scientix.eu/

School leadership and culture

School Leadership

It looks like you already have a lot of experience at the school level regarding leadership. To go further on this topic, take a look at this online course. As it says, "Every great teacher and every great school constantly work towards creating better learning conditions for students. Just as we hope our students become lifelong learners, we as educators should be constantly learning and improving": https://www.edx.org/course/launching-innovation-schools-mitx-microsoft-education-11-154x-1

High level of cooperation among staff

Good work! Next step is to promote your school's experience with other schools at regional, local and international level. For example, you could promote sharing of teachers' experience in Scientix Social Media Community (https://www.facebook.com/groups/ScienceTeachersEurope/) or the Scientix Blog (http://blog.scientix.eu/category/scientix/). You can even apply for an Erasmus+ Key Action 2 (KA2) project to share best practices with other European schools. For more information about how to apply to Erasmus+ funding follow ""Erasmus+ funding opportunities for schools"" online course on the School Education Gateway http://academy.schooleducationgateway.eu/web/erasmus-funding-opportunities-for-schools-2018-edition

Inclusive culture

Very well done! You can still take part in an international campaign such as the Code Week (https://codeweek.eu/) or the Safer Internet Day (https://www.saferinternetday.org/) and the STEM Discovery Week (http://www.stemalliance.eu/stem-week-2018)

Connections

With industry

Well done! Less experienced schools can definitely benefit from your experience! Check the Alliance initiative ""Professionals Go Back to School"" scheme to invite professionals to visit your school but also to share your experience: http://www.stemalliance.eu/pgb2s_school and also share your story in the Scientix blog: http://blog.scientix.eu/

With parents/guardians

Congratulations! To go further on your level of activities at the school level regarding this criterion, the ESPRIT Project (Fostering Equitable Science through Parental Involvement and Technology) leverages a technology-based social learning environment, Flipgrid (flipgrid.com), to engage science teachers and student-parent pairs in activities to support parental involvement and increase student learning outcomes. Their research focuses on how participating in the project activities affects (1) teachers' science instruction practices, (2) middle school students' science learning, STEM attitudes, and science engagement, and (3) parents' attitudes about school involvement and supporting their students' science learning. https://vimeo.com/266412430

With other schools and/or educational platforms

Still need to find innovative educational platforms to use in your schools? Pervasive and gameful learning, any time, anywhere, for science, technology, engineering and maths (STEM), targeting secondary education learners. BEACONING sets an example in multifaceted education technologies through a large-scale piloting of a digital learning platform that blends physical and digital spaces. As innovative action strategies, its pilot activities combine opportunities for new ICTs in multiple ways that merge learning acquired through formal, non-formal and informal means, developing the skills for today's abled and disabled learners and workforce. More info under: http://www.scientix.eu/projects/project-detail?articleId=563520

With universities and/or research centers

Well done! To go further, check out the activities created by this project:: the COMPASS (Creating Online Materials and Products At STEM Subjects) project is an initiative that alleviates problems by bridging the gap between research and teaching practices. The project's partnership is composed of two research-based universities (Bayreuth, Germany, and Maribor, Slovenia). Both universities have sound experience in developing dynamic geometry software (JSXGraph) and in the innovative use of ICT in classrooms (e-books) to enhance their didactical benefits. Four secondary schools from four countries (Spain, Romania, Turkey and Bulgaria) ensure that the project is firmly connected with the everyday reality of school life; and a Spanish company in educational technology brings the consortium into contact with the modern entrepreneurial world. More info under: http://www.scientix.eu/projects/project-detail?articleId=660622

With local communities

Try to formalise the cooperation with an agreement. You could continue cooperating with local communities by applying for a project at the European level such as an Erasmus+. You can find information in this School Education Gateway MOOC http://academy.schooleducationgateway.eu/web/erasmus-funding-opportunities-for-schools-2018-edition

School infrastructure

Access to technology and equipment

Give the opportunities to the students to bring their own devices and define rules for a safe use. Students can use their own smartphones and tablets for STEM activities in class, check out iStage 2, which has 11 topics to run on mobile devices: https://www.science-on-stage.eu/page/display/5/5/1290/istage-2-smartphones-in-science-teaching

High quality instruction classroom materials

It looks like your school is already creating high quality classroom materials. Share your experience at the European level and take part in the STEM Discovery Week campaign, which is a yearly campaign aiming to bring visibility at the European level for all initiatives related to STEM. More info about past campaigns under: http://www.scientix.eu/events/campaigns/sdw18

for us to know if you are improving your STEM strategy in areas not mentioned in the questionnaire. You can upload School practice evidence of such changes via the Upload School practice evidence on the My school area section of the STEM School Label Portal. Remember, the completion of the Assessment Form is just one part of the Accreditation Process, because the upload of School practice evidence, your exchanges with others via the Forum, and your reporting of case studies on the template provided are all also taken into account.