

## STEM School Label - Action Plan

Action plan submitted by ŞERİFE YILDIRIM for Özel İdare 100. Yıl İlkokulu - 06.01.2021 @ 14:52:14

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**

How nice! Let us know about your success stories! You can do this through an event such as the STEM Discovery Week: <a href="http://www.scientix.eu/stem-discovery-week">http://www.scientix.eu/stem-discovery-week</a>

## Problem and project based learning (PBL)

You are prodigious! Please also consider sharing your experience with others at the STEM Discovery Week: <a href="http://www.scientix.eu/stem-discovery-week">http://www.scientix.eu/stem-discovery-week</a>

#### Inquiry Based Science Education (IBSE)

Very well done! Please also consider sharing your experience with other schools and teachers. You can do this through an event such as the STEM Discovery Week: <a href="http://www.scientix.eu/stem-discovery-week">http://www.scientix.eu/stem-discovery-week</a>

# **Curriculum implementation**

#### **Emphasis on STEM topics and competencies**

You have done the most difficult part. Now remember to stay updated and share your project. Have you tried the Teacher Discovery Placement Scheme? (<a href="http://www.stemalliance.eu/teacher\_placement">http://www.stemalliance.eu/teacher\_placement</a>). Also teachers can go to industry to upgrade their competence, knowledge and skills regarding STEM subjects, gaining up-to-date insight about the current situation of STEM careers. Besides, developing knowledge of STEM subjects can open the opportunities available for students, enhancing their potential and stimulating their curiosity and attention by bringing careers into classrooms.

### 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 (<a href="http://www.citizenscience.org/">http://www.citizenscience.org/</a>).

#### **Contextualization of STEM teaching**

The success of STEM training depends on the direct linking of theory to actual situations. Also, real-time experimentation leads to knowledge. STEM teachers should: • Lead their students to apply theoretical knowledge in practice • Encourage their students to seek knowledge through experimentation in real-world conditions • Create the right conditions to enable their students to apply the knowledge they have taught to real situations and problems Find additional related material and ideas at <a href="https://www.middleweb.com/5003/real-world-stem-problems/">https://www.middleweb.com/5003/real-world-stem-problems/</a> as well as on the link: <a href="https://www.prodigygame.com/blog/category/teaching">https://www.prodigygame.com/blog/category/teaching</a> -tools /. Finally, do not hesitate to share your experiences at Scientix blog <a href="https://blog.scientix.eu/">https://blog.scientix.eu/</a> or on the STEM School Label blog!

## **Assessment**

#### Continuous assessment

Congratulations! Consider sharing your experiences and good practices in a blog article! http://blog.scientix.eu/

#### Personalised assessment

Perfect! Please consider sharing your thoughts with us on a webinar or a blog. Intel's Personalised ilearning
Toolbook (https://www.intel.com/content/dam/www/public/us/en/documents/education/personalized-learning-toolbook.pdf) can also give you further ideas.

## Professionalisation of staff

### **Highly qualified professionals**

Way to go! You are DIY designers of materials and distributors of know-how! Why not write about it on the Scientix blog <a href="http://blog.scientix.eu/">http://blog.scientix.eu/</a>

#### Existence of supporting pedagogical staff

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

#### **Professional development**

These are great actions! It is suggested that teachers be motivated to seek their participation in actions aimed at professional development. Such incentives may be: • The practical reward of their efforts to strive for their continuous professional improvement • Promoting teachers' efforts to improve their professional qualifications in the educational community • Participation of teachers who are interested in their professional development at international seminars and conferences • Issuing a training certificate • Taking the position of coordinator of the training programmes in the school unit • Their financial support, depending on the time they spent on their participation in the training seminars. You can share your experiences on the Scientix blog <a href="https://blog.scientix.eu/">https://blog.scientix.eu/</a>

# 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": <a href="https://www.edx.org/course/launching-innovation-schools-mitx-microsoft-education-11-154x-1">https://www.edx.org/course/launching-innovation-schools-mitx-microsoft-education-11-154x-1</a>

### 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 may also should consider collaborating with museums or science centres to engage students in STEM beyond the classroom. FEAST (Facilitating Engagement of Adults in Science and Technology) project has developed materials for activities aimed at facilitating adult engagement alongside their children in topics of science and technology within a museum or science centre setting. Find out more at: https://www.ecsite.eu/activities-and-services/projects/feast Moreover, you should take the teacher and parent/guardian collaboration to the next level and work together for introducing and attracting students to STEM careers. ""Opening Schools to STEM Careers" online course at EUN academy will provide you with tools to collaborate at in-school-level for STEM career counselling and host and create STEM career events, among others. For more information visit http://www.europeanschoolnetacademy.eu/web/opening-schools-to-stem-careers

#### Inclusive culture

Try to organise a dissemination campaign for STEM school activities in order to update your community. You could also extend your audience by promoting your activities at an international level, such as at the Scientix Facebook group "Science Teachers in Europe": <a href="https://www.facebook.com/groups/ScienceTeachersEurope/">https://www.facebook.com/groups/ScienceTeachersEurope/</a>) and/or the Scientix blog (Scientix blog http://blog.scientix.eu/)

# Connections

#### With industry

Check out the STEM Alliance website! You will find brochures about collaboration activities developed between schools and industry, but also webinars and testimonials. There, you will also find a handbook and access to the tool of the STEM Alliance initiative "Professionals Go Back to School" to invite professionals to visit your school: <a href="http://www.stemalliance.eu/pgb2s\_school">http://www.stemalliance.eu/pgb2s\_school</a> For an introduction to STEM Alliance, check out this video: <a href="https://www.youtube.com/watch?v=-2brL8m-ltl">https://www.youtube.com/watch?v=-2brL8m-ltl</a>

#### 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. <a href="https://vimeo.com/266412430">https://vimeo.com/266412430</a>

### With other schools and/or educational platforms

So nice to hear! To go further on your level of activities at the school level regarding this criterion, check out this research study (2016) by Santiago Rincón-Gallardo and Michael Fullan "Essential features of effective networks in education". It can be accessed through URL: <a href="http://www.emeraldinsight.com/doi/full/10.1108/JPCC-09-2015-0007">http://www.emeraldinsight.com/doi/full/10.1108/JPCC-09-2015-0007</a>

#### With universities and/or research centers

To go further on this topic, the ""Schools 2.0"" project was chosen as one of the three most innovative initiatives in the ""Initiative for the Education and Research" category of the European Prize for Innovation in Public Administration. The aim of the project is to enable high-quality comprehensive distance learning and e-learning for a wide number of users, teachers and students alike. Seven central elementary schools with their corresponding branch schools taking part in this project are connected by optical cable to the Internet and CARNet. In schools, wireless networks were installed (with Eduroam access points) to enable students and teachers to use their tablet computers to access online content and digital textbooks, and to use them for videoconferencing and distance learning. More info at: <a href="http://www.scientix.eu/projects/project-detail?">http://www.scientix.eu/projects/project-detail?</a> articleId=347957

#### With local communities

You could find some interesting point to continue your activity in Escity project, emphasising strategies placing science communication and science outreach under the umbrella of cultural policies. More info under: <a href="http://www.scientix.eu/projects/project-detail?articleld=98972">http://www.scientix.eu/projects/project-detail?articleld=98972</a>"

# **School infrastructure**

### Access to technology and equipment

Promote the use of virtual learning platforms to give every student the opportunity to design his/her own portfolio. Some examples of virtual learning, here: <a href="http://www.scientix.eu/resources/details?resourceld=10327">http://www.scientix.eu/resourceld=10327</a> and here: <a href="http://www.scientix.eu/resources/details?resourceld=3777">http://www.scientix.eu/resources/details?resourceld=3777</a> and here: <a href="http://www.scientix.eu/resources/details?resourceld=2983">http://www.scientix.eu/resources/details?resourceld=2983</a>

#### High quality instruction classroom materials

Exciting! Please 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: <a href="http://www.scientix.eu/events/campaigns/sdw18">http://www.scientix.eu/events/campaigns/sdw18</a>

The Assessment Form you submitted is generated from a large pool of questions. It is also useful for us to know if you are improving your STEM strategy in areas not mentioned in the questionnaire. You can <u>upload School practice evidence</u> of such changes via the Upload School

practice evidence on the <u>My school area</u> 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 <u>Forum</u>, and your reporting of <u>case studies</u> on the template provided are all also taken into account.

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