



STEM Education in primary/secondary education in Europe: priorities and bioeconomy

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Priorities for STEM Education from May 2021

1. Improving STEM teaching in primary and secondary with a focus on the key challenge of each educational level, namely:
 - a. S, T, E and M in primary: Increasing the content knowledge of and confidence in of each of the STEM disciplines of primary school teachers.
 - b. S+T+E+M in secondary: Supporting secondary school teachers and vocational education training (VET) with Integrated STEM teaching and learning with a special focus on transversal themes; addressing pre-service and initial teacher training; and whole school as a learning ecosystem.
2. Connecting STEM education with real life problems and the world around us. This includes 1) tackling problems related to for example sustainability (such as ocean literacy, forestation, and climate change), as well as health, technology, and engineering challenges; 2) highlighting the importance of collaboration in STEM; 3) making use of outdoor / experiential education.
3. Expanding the access to information on STEM careers, current scientific research results and innovative teaching practices and technological solutions.
4. Supporting exchanges between teachers, Ministries of Education, industry, and other STEM education stakeholders, including the validation, and piloting of initiatives, practices, and solutions; and the sharing of best practices and results from projects.



24 Ministries of Education from 23 countries have confirmed their participation and appointed a STEM representative as of 08/10/2020, including: Belgium (Flanders), Belgium (Wallonia), Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Greece, Hungary, Israel, Italy, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania, Serbia, Slovakia, Spain, and Turkey



Scientix – the community for science education in Europe

Project funded under the H2020 programme
Coordinated since the beginning (2010) only by EUN
Currently Scientix 4 (2020-2023)



A European network for all the people working in the field of science education – teachers, education researchers, policymakers, and other STEM education professionals.



Promotes and supports European collaboration among STEM stakeholders



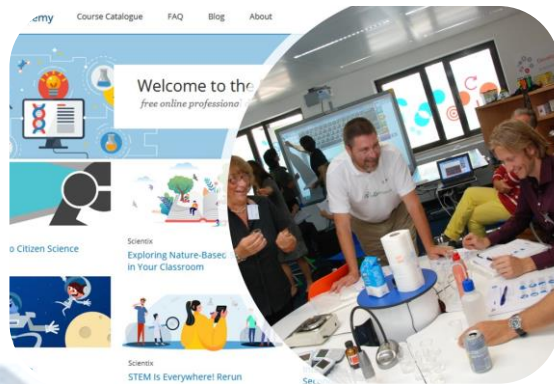
Various channels and services



Scientix at a glance



Support



Train



Connect



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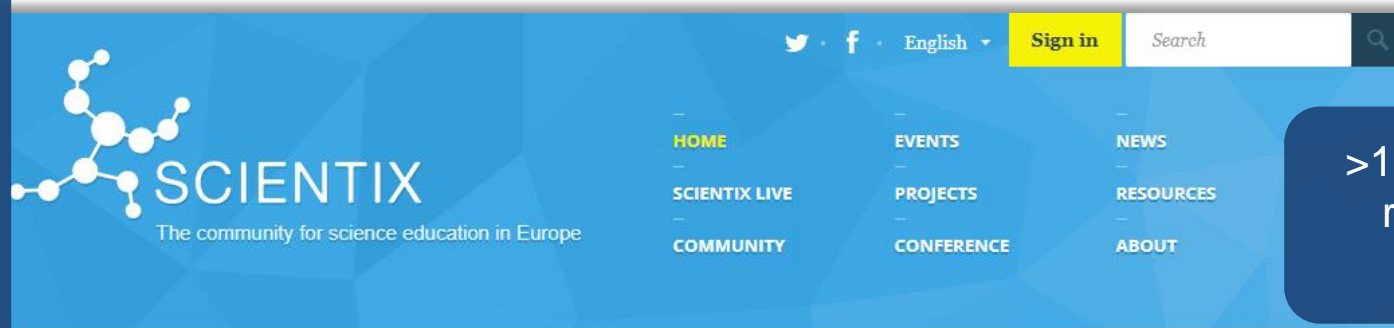


Scientix, the community for science education

- Projects on STEM education
- Resources
- Scientix observatory papers
- Newsletters
- Blog entries
- Translation of resources



<http://www.scientix.eu>



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STEM School Label

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Boosting
European Citizens'
Knowledge and Awareness
of Bio-Economy
Research and Innovation

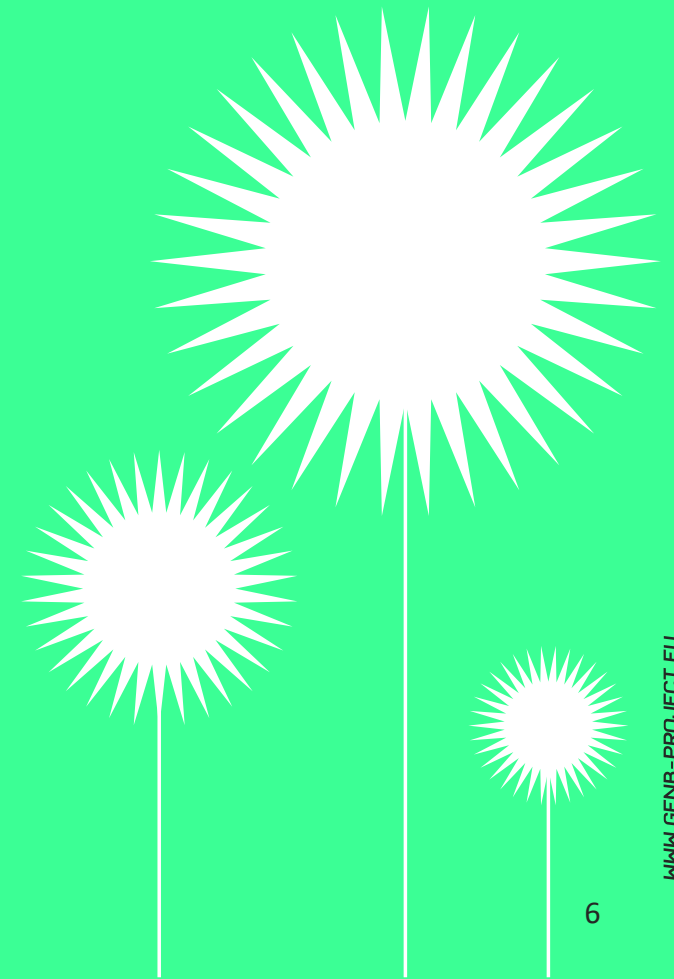
December 2017- December 2020



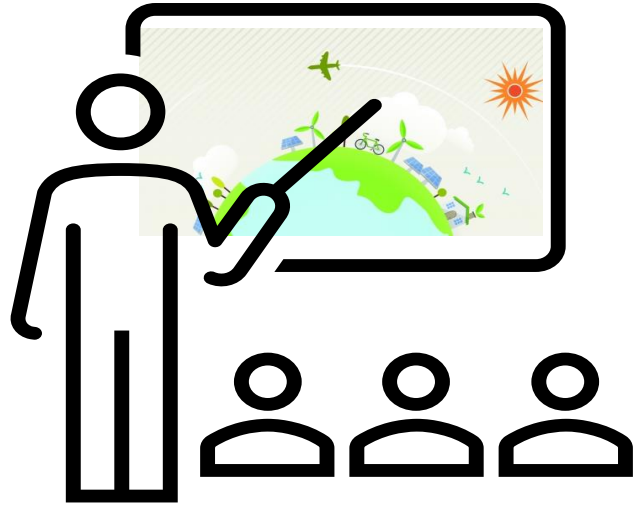
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Funded by
the European Union



Integrating Bioeconomy in primary / secondary education



bloom

"Boosting Bioeconomy Knowledge in Schools"

MOOC for teachers

European Schoolnet Academy

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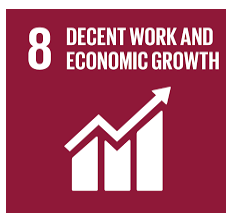
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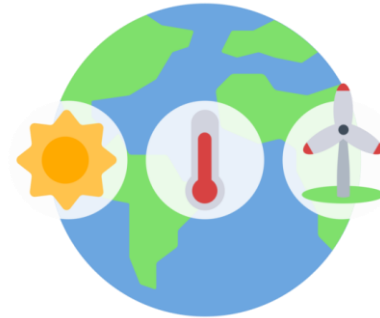
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Terra Mission Educational Pack



English

Dutch

Italian

German

Portuguese

Greek

Spanish



- Designed for ages 8-10 and 11-14
- It consist of:
 - An introduction and a closing lesson
 - 8 themes
 - *Lessons for the interactive whiteboard with information, assignments and videos*
 - *Teacher guides, worksheets and answer keys*
- Themes are all interconnected but can be taught separately
- Easily adapted to different curriculums

The 8 Themes

 <p>Introduction (ages 8-10)</p> <p>Open the lesson Preview in the library Teacher guide</p>	 <p>Introduction (ages 11-14)</p> <p>Open the lesson Preview in the library Teacher guide</p>
 <p>Climate change (ages 8-10)</p> <p>Open the lesson Preview in the library Teacher guide Worksheet</p>	 <p>Climate change (ages 11-14)</p> <p>Open the lesson Preview in the library Teacher guide Worksheet</p>
 <p>Energy (ages 8-10)</p> <p>Open the lesson Preview in the library Teacher guide Worksheet</p>	 <p>Energy (ages 11-14)</p> <p>Open the lesson Preview in the library Teacher guide Worksheet</p>
 <p>Waste (ages 8-10)</p> <p>Open the lesson Preview in the library Teacher guide Worksheet</p>	 <p>Waste (ages 11-14)</p> <p>Open the lesson Preview in the library Teacher guide Worksheet</p>
 <p>Circular economy (ages 8-10)</p> <p>Open the lesson Preview in the library Teacher guide Worksheet</p>	 <p>Circular economy (ages 11-14)</p> <p>Open the lesson Preview in the library Teacher guide Worksheet</p>





Terra Mission MOOC: Teaching Sustainability for Action

- Massive Open Online Course (MOOC) available at the [European Schoolnet Academy](#)
 - Created by Life Terra and Scientix
 - **Primary and secondary teachers**
 - How to integrate Terra Mission in the classroom, learn about outdoor experiences and practical assignments



- *September 2023 re-run!*





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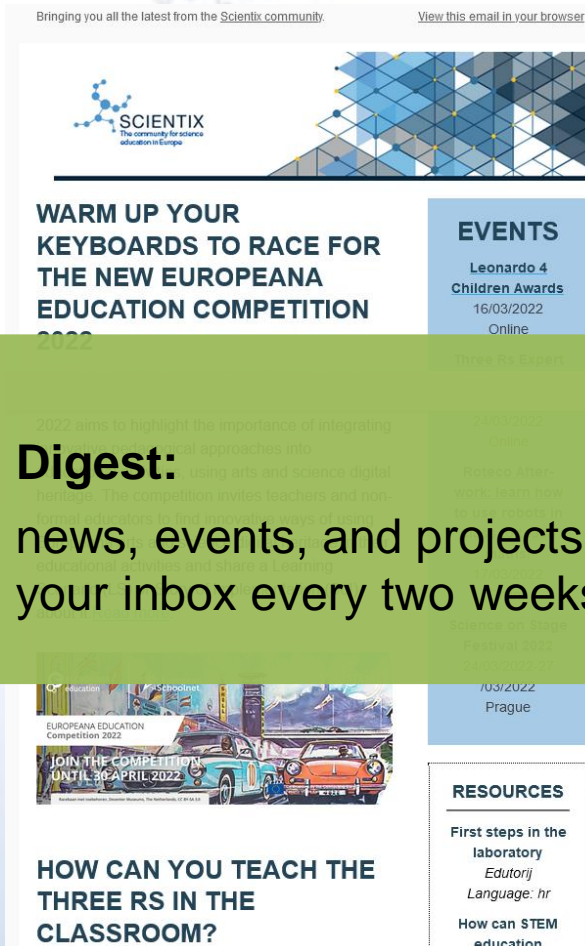


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Thank you!

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