



A bag of... Earth

ERASMUS PLUS
Call 2021 Round 2 KA2
KA210-SCH - Small-scale partnerships in school education



PROJECT OBJECTIVES



- to foster primary school children **interest in science**
- to improve children **STEM competences** in order to deal with **environmental issues** in their everyday life with peers and families
- to promote reflection and discussion about **gender stereotypes in science** and in STEM education and career
- to **connect** the scientific knowledge to **other school disciplines** in a holistic approach to education



PARTICIPANTS



- Associazione Scienza Divertente Roma APS, Rome, Italy - non formal science education provider
- IC via Belforte del Chienti, Rome, Italy - school
- IC via dei Sesami, Rome, Italy - school
- Activities for Children s.l. (Nutty Scientists Madrid), Madrid, Spain – non formal science education provider
- Paraiso Sagrado Corazones, Madrid, Spain - school



TARGET GROUPS



In Rome:

- 9 classes from IC via Belforte del Chienti primary school – grades 2 to 4
- 6 classes from IC via dei Sesami primary school – grades 2 to 4

In Madrid:

- 12 classes from Paraiso Sagrado Corazones – grades 1 to 4



PROJECT ACTIVITIES SUMMARY



1. DESIGN AND DEVELOPMENT OF SCIENCE KITS
2. TEST AND EVALUATION OF SCIENCE KITS
3. ONLINE EXCHANGE EVENT FOR CHILDREN AND
DISSEMINATION ACTIVITIES
4. PROJECT MANAGEMENT AND MONITORING



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DESIGN AND DEVELOPMENT OF SCIENCE KITS

Science kits on environment-related topics are the distinctive feature of the project A bag of... Earth

- This activity is going to take place **nationally** (both in Italy and Spain)
- **Teachers and non-formal science educators** will **agree** on grade-specific **topics** to be explored. Topics examples are: water and how to save it; the atmosphere and climate change; renewable energy (wind, water, sun); water and air pollution; sustainable mobility; food and environment; recycling; biodiversity...
- **4 kits** per participating class will be designed and developed



SCIENCE KITS CONTENT



Each grade will receive 4 different kits during school year 2022-2023 (November 22, January 23, March 23, May 23)

Kits will be delivered to every child in the class and each kit will **contain**:

- **Materials** for topic-related experiments and possible additional experiments to be performed at home (or in class, but without science instructors supervision). Content materials will be **recycled or recyclable**.
- **Suggested videos and or books** to additionally explore the topic
- **Quizzes and/or games** to assess learning outcomes
- Brief **presentation of a female scientist** in the field
- A “**connection map**” linking the topic to other subjects (geography, history, civic education, art...)



Participants' tasks in activity 1

	Scienza Divertente Roma	IC via Belforte del Chienti	IC via dei Sesami	Activities for Children	Paraiso Sagrado Corazones
Definition of topics and learning outcomes	<p>May- September 2022 ITALY Agree on 4 topics and learning outcomes for each grade (topics can be different for the 2 involved schools; each school can meet Scienza Divertente individually)</p>			<p>May- September 2022 SPAIN Agree on 4 topics and learning outcomes for each grade</p>	
kit 1	Development of kit 1 – by November 202			Development of kit 1 – by November 202	
kit 2	Development of kit 2 – by January 2023			Development of kit 2 – by January 2023	
kit 3	Development of kit 3 – by March 2023			Development of kit 3 – by March 2023	
kit 4	Development of kit 4 – by March 2024			Development of kit 4 – by March 2024	



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TEST AND EVALUATION OF SCIENCE KITS

Science kits will be delivered to children in classes and scientific laboratories will be provided. Children and teacher(s) will continue to use the kits to discuss and further explore the topic

- This activity is going to take place **nationally** (both in Italy and Spain)
- In November 2022, January, March, May 2023 each class will receive one kit and non-formal science instructors will provide a **1h science lab** on the topic by using materials included in the kit (dates of labs will be agreed)
- During the next month(s) children will continue to explore the topic on their own and/or in class by using the **additional materials**; discussion will be elicited in class about **connection with other school subjects** and to contrast **gender stereotypes in STEM**



Participants' tasks in activity 2

	Scienza Divertente Roma	IC via Belforte del Chienti	IC via dei Sesami	Activities for Children	Paraiso Sagrado Corazones
kit 1	Nov22 - deliver of kits and interactive lab 1	Nov-Dec22 – discussion topic 1	Nov-Dec22 – discussion topic 1	Nov22 - deliver of kits and interactive lab 1	Nov-Dec22 – discussion topic 1
kit 2	Jan23 - deliver of kits and interactive lab 2	Jan-Feb23 – discussion topic 2	Jan-Feb23 – discussion topic 2	Jan23 - deliver of kits and interactive lab 2	Jan-Feb23 – discussion topic 2
kit 3	Mar23 - deliver of kits and interactive lab 3	Mar-Apr23 – discussion topic 3	Mar-Apr23 – discussion topic 3	Mar23 - deliver of kits and interactive lab 3	Mar-Apr23 – discussion topic 3
kit 4	May23 - deliver of kits and interactive lab 4	May-Jun23 – discussion topic 4	May-Jun23 – discussion topic 4	May23 - deliver of kits and interactive lab 4	May-Jun23 – discussion topic 4



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ON LINE EXCHANGE EVENT

On line exchange event for children will be a final event in which they will exchange experiences, ideas and reflections about environmental issues with students from another country who did a similar experience

- This activity is going to take place **trans-nationally**
- Expected date of event in the **beginning of June 2023** (before school ends)
- The event will be **co-planned** with the involved children and staff, so that they will all be active and engaged



DISSEMINATION ACTIVITIES

They are going to take place during the whole **project duration** and they **include 2 final dissemination events** (in Italy and Spain)

- This activity is going to take place **nationally**, but directly connected to the other Nation
- It includes **social media and website** communication, **newsletters, articles** on School Education Gateway
- The **final dissemination events** are intended to target **education institutions, teachers, non-formal educators, especially in scientific fields, school communities** and will be the occasion to **discuss the lessons learnt** through the project and how they can be useful for other schools and for science education in general



Participants' tasks in activity 3 (1/2)

	Scienza Divertente Roma	IC via Belforte del Chienti	IC via dei Sesami	Activities for Children	Paraiso Sagrado Corazones
website	<p>Design a project image</p> <p>Share on its website project information</p>	<p>Share on its website (if available) project information</p>	<p>Share on its website (if available) project information</p>	<p>Share on its website (if available) project information</p>	<p>Share on its website (if available) project information</p>
social media	<p>Share on social media pictures of ongoing activities (no visible children)</p>	<p>Share on social media pictures of ongoing activities (no visible children)</p>	<p>Share on social media pictures of ongoing activities (no visible children)</p>	<p>Share on social media pictures of ongoing activities (no visible children)</p>	<p>Share on social media pictures of ongoing activities (no visible children)</p>
newsletter	<p>Send newsletters to update on the ongoing project</p>	<p>Update the school community on the ongoing project</p>	<p>Update the school community on the ongoing project</p>	<p>Send newsletters (if available) to update on the ongoing project</p>	<p>Update the school community on the ongoing project</p>
articles	<p>Write 3 articles to be submitted to School Educatiaon Gateway</p>				



Participants' tasks in activity 3 (2/2)

	Scienza Divertente Roma	IC via Belforte del Chienti	IC via dei Sesami	Activities for Children	Paraiso Sagrado Corazones
Online exchange event for children	<p>Co –planned and implemented</p> <p>Non-formal science educators can organize and coordinate it, but suggestions/advice from schools will be needed</p>				
Final dissemination event	<p>Event in ITALY</p> <p>Programme and organize, send invitations, coordinate</p>	<p>Participate and share experience</p>	<p>Participate and share experience</p>	<p>Event in SPAIN</p> <p>Programme and organize, send invitations, coordinate</p>	<p>Participate and share experience</p>



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PROJECT MANAGEMENT

Scienza Divertente Roma is responsible for project management

Specific activities include:

- To create a list of contacts of all participants to talk about the project and share experiences
- To programme and conduct 4 transnational meetings:
 - May 22 – launching meeting
 - Sept 22 – operative meeting on kits development
 - Feb 23 – monitoring meeting + programming of online exchange event
 - Lug 23 – final evaluation of project
- To design a initial and final assessment forms for student (auto-)evaluation
- To design an «ongoing» evaluation form on science kits usage and successfulness, to be filled every 3 months by each participant
- To collect and analyze all monitoring forms
- To be available to discuss and solve arising issues



MONITORING

Monitoring activities will be carried on during the whole project. Scienza Divertente Roma will coordinate them

- This activity is going to take place both **nationally** and **trans-nationally**
- **Initial and final assessment** on students knowledge and attitudes
- **Ongoing monitoring forms** to evaluate learning outcomes (class or individual evaluation)
- **Monthly (national) update** between single schools and non-formal science education providers (can be performed by telephone call, teleconference or in person)



Participants' tasks in activity 4

	Scienza Divertente Roma	IC via Belforte del Chienti	IC via dei Sesami	Activities for Children	Paraiso Sagrado Corazones
Initial and final student assessment	<p>Design and provide the assessments</p> <p>Collect assessments</p>	Administer assessment to students	Administer assessment to students		Administer assessment to students
ongoing monitoring	Design and provide the ongoing monitoring forms	Fill the form (every 3 months)	Fill the form (every 3 months)	Fill the form (every 3 months)	Fill the form (every 3 months)
monthly update	Call teachers/schools for updates (approx. monthly)			Call teachers/schools for updates (approx. monthly)	



BUDGET AND ACCOUNTING

Partner / Action	design+development	test+evaluation	online exchange+dissemination	Total/partner
Ass. Scienza Divertente Roma	18.000 €	8.500 €	3.500 €	30.000 €
Activities for Children	15.000 €	7.000 €	2.000 €	24.000 €
IC Belforte del Chienti	1.000 €	500 €	500 €	2.000 €
IC via dei Sesami	1.000 €	500 €	500 €	2.000 €
Paraiso Sagrado	1.000 €	500 €	500 €	2.000 €
total	36.000 €	17.000 €	7.000 €	60.000 €

- Costs include: human resources (designing, developing, testing, evaluating kits, communication and dissemination activities), materials (kits and additional materials), services and supplies for dissemination activities



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