



Erasmus+



# ***MATHS AROUND US***

## Italian mobility and its results

San Marco in Lamis, Italy

*09th- 13th May 2016*



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*"Maths around us" 2015-1-PL01-KA219-016511\_1*



### SUNDAY 08/05/ 2016

Travelling day to San Marco in Lamis.

### MONDAY 09/05/2016

Welcome ceremony at school.  
Visit of the school, lesson observation.  
Teachers Project meeting.  
Free time to explore the town of San Marco.

### TUESDAY 10/05/2016

Departure for Gargano Dolina Pozzatina  
Visit of the "Sentiero dell'Anima"  
Visit of the "cheese farm" in San Marco

### WEDNESDAY 11/05/2016

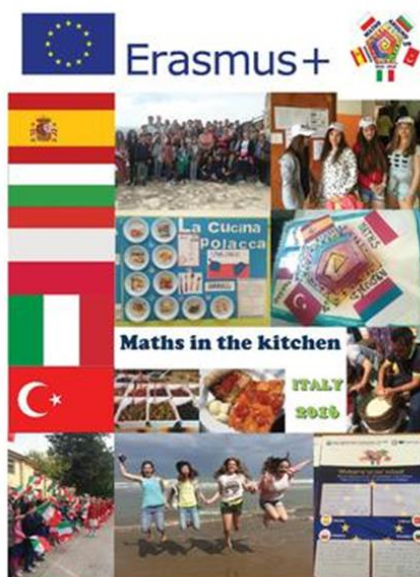
Trip to San Giovanni Rotondo, an example of modern architecture:  
Renzo Piano's St. Pio da Pietrelcina Church.  
Visit of the school, lesson observation.  
Project meeting  
Pizza Party at "La fracchia" restaurant in Borgo Celano.

### THURSDAY 12/05/2016

Visit to the town Vieste.  
Visit to school and observation of the cooking lesson  
Lunch in the school IPSSAR "Enrico Mattei"  
from Vieste.

### FRIDAY 13/05/2016

Visit to Monte Sant'Angelo  
A blast from the past:  
visit to the "Park of Dinosaurs " ,  
the interactive museum and St. Matthew convent in Borgo Celano.



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# San Marco in Lamis



## *\*Introduction*

The first meeting of the "Maths Around Us" project took place between 9 and 14 May 2016 in San Marco in Lamis, Puglia, Italy. Teachers from five countries met at the I.C. "San Giovanni Bosco-De Carolis" and discussed the various stages of the project, shared and agreed the activities to be carried out and the methods for disseminating the project. The activities related to the mathematics in the kitchen have been illustrated the times and the methods of evaluation of the various stages have been indicated. They all stressed the importance of evaluation, to be done with detailed questions on both the application of the new ICTs used by teachers and pupils, and on the improvement of students' English and mathematical skills. During the meeting the students participated in the school activities, they discussed the diet and the foods of the various nations. They visited an educational farm where they tried their hand at preparing mozzarella and pizza, solving questions related to their preparation. Teachers and pupils visited the city of San Marco and the most important historical sites. They made a trip to Vieste at the Istituto Alberghiero, San Giovanni Rotondo, Monte Sant'Angelo, the Sentiero dell'Anima and the Parco dei Dinosauri.







# \*Evaluation survey after the first stage "Maths in kitchen"

## PART 1 English Language

Developing language skills: speaking, writing, reading, breaking the language barrier between project students

1. Do you think, that your participation in Erasmus project helped you to develop your language skills in English?

*definitely yes*   *rather yes*   *rather not*   *definitely not*

2. Which skills did you develop the most:

- reading
- writing
- oral communication

3. In your opinion which skill was the most useful during the project and why?

.....

4. In your opinion what is your level of communication in English with foreign project students?

*excellent*   *very good*   *good*   *quite faire*

5. In your opinion what is your level of understanding written texts in English after your work in the Erasmus+ project?

*excellent*   *very good*   *good*   *quite faire*

6. Which activities do you regard as the most developing during project work?

- Creating texts in English.
- Verbal communications with foreign project students.
- Translating texts into English and vice versa.

7. Why?.....

8. Which language activities you did during the project were the most satisfying and motivating and why?

.....

9. Which language activities you did during the project were the least satisfying and motivating and why?

## PART 2 Maths skills

1. Do you think that thanks to the participation in the project did you develop your knowledge and skills in mathematics?

*surely yes, yes yes, definitely not*

2. Circle the skills you have developed the most:

- get to know the units that change,
- you know what percentage,
- know the importance of the Mediterranean diet,

3. How good are you at calculating the calories of various foods?

4. How good are you at calculating the daily calorie requirement?

5. How good is your knowledge of the food pyramid?

*excellent (10-9) very good (8-7) good (6-5) fair (4-3)*

6. Which topics did you not know before joining the project?

- knowledge of the calories of various foods,

- calculation of daily calorie requirements,

7. What skills do you consider most useful during the "Mathematics in the kitchen" project and why?

## PART 3 Developing ICT skills

1. Did you develop your ICT skills due to project tasks ?

definitely yes   rather yes                      rather not                      definitely not

2. What applications or ICT tools did you use during the project tasks?

Movie maker, photo story, Smilebox, tworzenie kolaży – pixlar, puzzle- match the memory , tagxedo, hot potatoes,

3. What applications or ICT tools you did not know before the project tasks ?

.....

4. What ICT tasks or activities did you find the most satisfying and motivating? Why?

.....

5. What ICT tasks or activities did you find the least satisfying and boring? Why?

.....



### ***PART 4 Developing ICT skills***

- Developing social skills due to group work, pair work (solving problems together, looking for solutions, tolerance in social contacts objective criticism in group, finding strengths and weaknesses , negotiation in group)

1. Underline: how do you usually work during the project work:

- individually
- in pair
- in group

2. Underline: How did you take decisions about division on of labour:

- One or two peers imposed on the others the tasks
- Everybody voluntarily or in negotiation way decided what to do

3. How did you solve problems in pair or group work ?

.....

4. What are your strengths in pair/group work?

.....

5. What are you weaknesses in pair/group work ?

.....

### ***PART 5 General questions***

1 .The atmosphere during the project activities was:

very good

- good
- bad
- I don't know

2. Did you like the project meeting?

yes

no

Why? .....

3. Did you develop your passions or hobbies due to the project?



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*excellent (10-9)    very good (8-7)    good (6-5)    fair (4-3)                      poor (2-1)*

4. In your opinion your participation in the project was :

*excellent (10-9)    very good (8-7)    good (6-5)    fair (4-3)                      poor (2-1)*

5. What project task was the most interesting and why?

.....

6. What project task was the least interesting and why?

.....

7. What project task was the most difficult and why?

.....

8. Did you gain more knowledge about project countries due to project tasks?

definitely yes    rather yes                      rather not    definitely not

9. What new or interesting things about project countries did you find out, you did not know before the project, give an example?

.....

10. Would you like to take part in another Erasmus project once again?

- yes
- no
- I don't know



## **\*Evaluation survey of Teachmeet Italy**

Teachers of the project partner schools conducted a meeting at school for the evaluation of the project and discussed all the aspects of the project .They shared their ideas , experiences, good practices and talked about the impacts of the project on the students in social , mathematical or technological ways and its results.

### ***What new ICT application did you use the most often and why?***

- Moviemaker: it is attractive, easy to use for students, and free.
- Taxedo: it is funny to create different shapes and personalization.
- Hot Potatoes: they can choose many options, it is creative.
- Comic life: they like using pictures and bubbles to make stories.
- Issues: easy to use, free and easy to share presentations.
- Pixlr: Collage application: free, funny and creative. They can use photos.
- Smilebox: slide show presented in interesting way, adding music, pictures and sentences.
- Quizlet: easy, attractive and free. They can use it for learning.
- Socrative: free and easy to use for students. For the stage evaluation.

### ***What project activities let students improve their English skills?***

- Oral communication during the mobilities
- Skype conversation
- Translating tasks
- Writing e-mails, whatsapp, etwinning, messenger, Facebook
- Online lesson
- Understanding different tasks

### ***What formative assessments elements did you use what is your opinion about them?***

- Using lesson goals
- Using key questions
- Finishing sentences
- Self and peer evaluation

### ***How maths skills were improved during the project?***

- Logical thinking in Maths
- Solving the problems they can encounter in real life
- Understanding the basic mathematical aspects
- Learn how to write real life by equations
- Realizing that Maths is around us everyday and everywhere

How did our students improve their social and collaborative skills ?

Encouraging group work both in the classroom and out.

Successful interpersonal communication.

Increasing learning opportunity via technology, online meeting.



## **\*SAN MARCO IN LAMIS**



### **Teachers and students from five countries visited the San Marco in Lamis .**

It is part of the Gargano National Park and the Mountain Community of Gargano and holds, with its 234 km<sup>2</sup> surface, the eighty-third place among the Italian Municipalities with the largest territorial expansion. The towns of San Marco in Lamis also include the hamlets of Borgo Celano (2.13 km), San Matteo (2.08 km), Stignano (6.73 km) and Villaggio Amendola (19.1 km). The Jana torrent that has been crossing the municipality for centuries, has now been reduced to a long, mostly underground channel, the so-called "canalone", due to the drainage of rainwater.

The history of the town is intertwined with that of the monastery of St. Matthew the Apostle, whose building at first sight can be mistaken for an ancient fortress, but in reality it is a place of worship and hospitality dating back to the IX-X century. In the Middle Ages the imposing structure guaranteed protection to the inhabitants of the place, for its impregnable position, perched on a hill. From the seventeenth century to today is a friary of Franciscan friars.

The historic center is called Padula, or marsh (in Latin lamis is equivalent to "in the swamps"), a testimony to the fact that once (before its complete reclamation) the area was swampy. It is of a medieval type, with mostly white terraced houses with narrow streets and dead ends.

## **\*LE FRACCHIE**



### **\*The fracchie**

San Marco in Lamis is known above all for the traditional Procession of the "fracchie", a very suggestive and very singular popular religious event, which is repeated promptly for about three centuries every Good Friday for the re-enactment of the Passion of Christ, and that every year, recalls a great influx of strangers. The fracchie are huge torches, made with large trunks of trees open longitudinally in the shape of a cone and filled with firewood, to be burned at dusk and then become itinerant bonfires that illuminate the path of Our Lady of Sorrows along the streets of the country looking of the dead Jesus son.

It seems that the origins of this rite date back to the early eighteenth century, a period of edification of the church of Our Lady of Sorrows and its reasons, as well as religious and devotional, should also be linked to a practical motivation due to the precise physical conditions up area. In fact, when it was built (1717), the church of the Addolorata was located outside the town and there it would remain until the last twenty years of the nineteenth century. A location that stimulated the imagination of the inhabitants, who thought to illuminate with the "fracchie" the road that the Madonna traveled from her church to the Collegiate, where the body of Christ was kept.

The etymology of the word "fracchia" is uncertain. It could derive from the Latin "fractus": broken, broken, open (referring to the trunk of the "open" tree to be filled with wood). Or, it could originate from the dialectal word abruzzese "farchia" (torch, torch), transformed by metathesis into "fracchia".





## \*Il Sentiero dell'Anima

Three thematic routes, five hectares of extension, two hundred tablets engraved in fire with verses in Italian, in vernacular and in foreign languages, suspended from trees, scattered in the heart of the Gargano National Park. It is the "Path of the Soul - Parco di Tempi diVersi" an artistic-environmental park, unique in the territory of Capitanata born from the will of the artist and poet of San Marco in Lamis, Filippo Pirro. In 2001, in fact, Pirro strongly wanted to realize this artistic and cultural project that winds between the rocks dug by the water, between severe and swallowed, a few steps from the Dolina Pozzatina (karst dolina over 650 meters long and 400 meters wide, is the second largest dolina in Europe, ed), with the spectacular view of the Tremiti Islands on the horizon. Catapulted into a dimension out of time and space, visitors to the trail have the opportunity to live an experience in contact with nature and with poetry that refreshes the spirit. «The journey is like a great open book - let know the four sons of Filippo Pirro who carry on the project - you come across phrases, words and stories among branches, stones, leaves and flowers. Also camouflaged and integrated along the way, they surprise the trompe d'oeil, the frescoes, the murals, the solar sundials and the monumental groups. The waste, the scraps, the old man found here, in the hands of the artist, a new essence, a new form, to change into an object, a statue, a work. The artistic installations complete the message and offer further points of departure for as many journeys: a tribute to the rural culture, a reference to the great artists, these poets, writers, painters and musicians, split of the Gargano, in its environment and its history ». The beating heart of the Park is called the Open Book, the first part of the agricultural fund; follows The Divine Comedy, articulated in an educational and emotional journey in the three cantiche, with installations of land art and finally the solar clocks, between meridians and artistic sciopers for time measurement. The Path of the Soul represents the will to protect the territory and the culture but it also needs help and support. For this reason, a few years ago the association of the same name has been working to promote awareness of poetry: "We are convinced that culture is a common heritage to share, exchange and treat, weaving different looks and worlds", they conclude. - Among the activities promoted, report the poetry prize Il Sentiero dell'Anima which is the most important events of the year, organized by Edizioni del Rosone, Centro Culturale Il Sentiero dell'Anima, from Fai Fondo Ambiente Italiano, Foggia delegations, under the patronage of the Foundation of the United States of Foggia and the Fondazione Squal and Angelo Soccio.





## The “cheese farm”

Visit to educational farm where they tried their hand at preparing mozzarella and pizza, solving questions related to their preparation.



## **\*Visit to San Giovanni rotondo**

Teachers and students from project countries went on a sightseeing tour around the city and visited historic buildings and monuments San Giovanni Rotondo.



San Giovanni Rotondo is an Italian town of 27 124 inhabitants in the province of Foggia in Puglia, famous throughout the world for the fact of housing the remains of St. Pio of Pietrelcina, a Capuchin friar who lived in the city for a long time.

The municipality is part of the Gargano National Park San Giovanni Rotondo.

### **Monuments and places of interest** **Chiesa Santa Maria delle Grazie**

The church has a rectangular plan with a simple facade, decorated with a portal with a frescoed lunette, a small rose window and a central bell tower. Inside it has a single nave, in Baroque style, with four side chapels, decorated by saints to whom they are entitled. The high altar is adorned with a wooden fresco of the Madonna and Child, surrounded on both sides by St. John the Baptist and the Evangelist.

At a second entrance of the convent, towards the remaining cloister, is the cell of Padre Pio, open for visits. Inside the convent there is also the crypt where the body of Padre Pio was housed before being transferred to the nearby sanctuary designed by Renzo Piano. From the crypt, through a door located on the parades opposite the stairs, you can access a path that crosses the convent allowing you to visit some of the places where Padre Pio lived as the cell and the choir of the ancient church where Padre Pio received the stigmata.



## \* Trip to Vieste

Teachers and students of the partner schools had a trip to Vieste and Istituto Alberghiero “E. Fermi” .



Vieste is an Italian municipality in the province of Foggia, in Puglia. As a bathing resort, for the quality of its bathing water it has been repeatedly awarded the Blue Flag by the Foundation for Environmental Education, it is part of the Gargano National Park. It is the easternmost municipality of the Gargano promontory and the province of Foggia. The particular urban location of Vieste is linked to the karst nature of the Garganico Promontory, characterized by rocky layers often eroded by sea action.

Vieste, seen from the port

The nucleus of the inhabited area rises on a small rocky peninsula, with a more or less symmetrical shape, characteristic for its three bays separated by two points:

- Punta di San Francesco, facing east, steep, elevated and harshly rocky;
- Punta di Santa Croce, facing north, lower.







The castle



The school



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## \* Trip to Monte Sant'Angelo

Monte Sant'Angelo (Mónde in local dialect [5]) is an Italian town of 12 357 inhabitants in the province of Foggia, in Puglia, famous for the sanctuary of San Michele Arcangelo (UNESCO World Heritage Site), is a destination for pilgrimages of Christian faithful since the sixth century. It is home to the Gargano National Park Authority.

### UNESCO recognition

On June 25, 2011, the Sanctuary of San Michele Arcangelo di Monte Sant'Angelo becomes a UNESCO World Heritage Site with the serial circuit The Longobards in Italy, Places of Power, 568 - 774 AD, joining the ranks of the most authoritative assets Cultural of the world and that is in the World Heritage List.

### The recognition of National Geographic

On January 5, 2014, the National Geographic Society (one of the largest non-profit scientific and educational institutions in the world) recognized the Cave of San Michele Arcangelo as one of the most beautiful caves in the world. To be precise, the micalica cave was positioned at the eighth place in the world top ten drawn up by the scientific body. Moreover it is the only Italian cave included in the list of the top ten.





## **\*Visit to Museo Paleontologico dei Dinosauri**

### **Paleontological Museum of Dinosaurs**

Inserted in the green of the Gargano National Park, the Museum is located in the hamlet of Borgo Celano, where some local geologists have found important dinosaur footprints, lived over 100 million years ago. The Museum offers illustrative panels, videos, dioramas and reconstructions of places based on scientific studies, in order to prepare the visitor for the external route where dinosaur reproductions have been placed in real size.





## \*Visit to “San Matteo”



Formerly known as the Abbey of San Giovanni in Lamis, the imposing monastery is located about a couple of kilometers east of San Marco in Lamis on the slopes of Mount Celano (871 m), between the green of the hornbeam and the ash trees that dominate the Valley of the Starale. There are no certain dates on the foundation of the sanctuary probably founded by the Lombards, but certainly the existence of a church and a hospice were certain as early as the fifth-fourth century. After the donation of the relic the convent was known as the Convent of San Matteo although officially the canonical name still remains "Convent of San Giovanni in Lamis". In these last centuries the convent has always been a destination for pilgrimages, increased considerably in recent years by the influx of visitors to the tomb of San Pio da Pietrelcina in San Giovanni Rotondo and this has only increased the notoriety of the convent that has developed within the Gargano National Park thanks to its inclusion in a unique landscape of its kind.

In these last centuries the convent has always been a destination for pilgrimages, which has increased considerably in recent years from the influx of visitors to the tomb of Saint Pio of Pietrelcina to San Giovanni Rotondo and this has only increased the notoriety of the convent that has developed within the Gargano National Park thanks to its inclusion in a unique landscape of its kind. Do not overlook the famous library dedicated to Father Antonio Fania from Rignano Garganico set up in the last century in some meanders of the convent (once used for the cattle shed), with more than 60,000 volumes, which stands out among the most important of the whole Capitanata also thanks to its function as a museum due to the

presence of a considerable number of works of art present inside (paintings, statues, simulacra ...), to remember the collection of ancient Bibles and the countless maps depicting the Capitanata.





## \*Links

### The presentation food pyramid and preparation the pasta "Maths in kitchen"

<https://www.youtube.com/watch?v=6LlgxH1JxEw>

<https://www.youtube.com/watch?v=YD28UGoGz-U>

## \*Conclusion

The activities of the first stage "Maths in the kitchen", have improved the mathematical skills perceiving the problems in a joyful way, encouraging them to do their best, finding similarities and differences between the different environments of the five participating schools, numerous activities and events have been organized . The students of the various countries have dealt with the important theme of a balanced and healthy diet, comparing it with food that the grandparents ate and today 's. Knowledge of nutrients, food pyramid and Mediterranean diet. They calculated the calories of various foods and the daily needs, they created the food pyramid in the form of a mathematical puzzle in the shape of a geometric figure, they tried to make food and desserts, making a comparison between the various countries.

All mathematical and communication actions between students were conducted in English, which made students more aware of the importance of learning foreign languages and developing their language skills. Teachers had the opportunity to exchange opinions and experiences, to observe different teaching methods. By taking part in the activities, the pupils developed their social and cooperative skills by communicating and addressing the tasks in international teams. Students working with computers and on the Internet have developed their ICT skills. Teachers have exchanged international experience in teaching and learning various topics, from mathematics to English or ICT. All the activities of the project have been positively realized both by the students and by the teachers. It can be concluded that the activities of "Mathematics in the kitchen" have been very successful from the point of view of participation and teamwork, with positive results.

