A Taste of Maths. ATOM

**Project Kit description**
It is also intended to facilitate mutual understanding through getting knowledge on the historical and cultural contexts partners live in.

Due to the variety of topics and constructive strategies, it is suitable for CLIL courses.

**Objectives**

1. Connecting mathematical content in the curriculum and common aspects of day-to-day life, especially related to nutrition and cuisine. Developing pupils' ability to abstract thinking, to transfer mathematical knowledge to everyday life and vice-versa.

2. Developing competencies among pupils: mathematical, artistic, digital competencies as well as learning to learn competence.

3. Knowing and understanding our partners’ cultural and historical background by studying the local customs and traditions. Getting aware of the similarities and differences between us, developing tolerance and cooperation.

4. Facilitating communication in a foreign language. Using English as a platform to access and construct knowledge related to different subjects and situations as well as a collaboration tool to communicate information, ideas, feelings.

5. Improving results in the class and increasing motivation, interest and effort among the participant pupils.

6. Promoting team work and developing multiple intelligences.

7. Using ICT as a strategy for searching information, solving tasks, sharing and disseminating results and as a communication tool for both teachers and pupils.

8. Providing both pupils and teachers with diversified techniques in order to promote critical spirit.

**Process**

**Getting started**
Teachers first compare the syllabuses and holidays calendar to decide on the common content to be used. Teams will agree on the tasks they will be in charge of. The teachers can communicate in any way they wish, using Skype, or email or the TwinSpace.

They then plan some Ice-breaking activities that will include pupils’, teams’, schools’ and towns’ presentations, including historical aspects of partners’ towns. These activities are intended to help the pupils get acquainted to the Twinspace tools. You can look for ideas on icebreaking activities on the eTwinning portal.

The teachers next launch a logo contest. Pupils can create the logo proposals, either hand drawn, or using specialised sites or software. Brainstorming activities can help to give all the participants opportunities.

The teachers create a blog where the main activities of the project are posted.

**Main project activities**
The main project activity consists of one school proposing Mathematical tasks for their partners in the other schools. As the other teams give the solution, the proposing team would confirm the correctness of the solution proposed. The task will also be discussed and compared, both among teachers and in class.

Some examples of tasks:

• Cultural Flavours: presentations of gastronomy, tales, music and traditions related to Maths.

• Fibonacci Book: creating poems with the Fibonacci Series structure and “bread” as a common topic. (On-line collaborative writing)

• Spicy Maths Riddles: creating Maths problems concerning nutrition and presenting them in a
nice way for other teams to solve in turn.
• Pi(e) Day: thinking and elaborating activities to be presented for the International Pi Day: Glogsters, art exhibitions, videos, pies and cakes.
• Communication sessions on line to introduce participants and schools, to celebrate Pi Day and to end the project.
• A Piece of Pie in....: solving a Maths problem to compare prices in each town.
• Maths is around us: presentations to show how Maths can be found in every-day life: nature, monuments, and streets.
• The Breadcrumbs Trail: evaluation activities with on-line surveys, analyses of results. Dipity timeline.

Evaluation
The evaluation can take place during the entire project, both in each of the partner schools, both at pupils’ and teachers’ level. The methods used can be any of the following:

On-line surveys using, for example, SurveyMonkey, to get everybody's opinions and analyse results.

The pupils may be assessed regarding to the following criteria:
• active participation and communication
• using ICT with partners in other schools,
• level of commitment and motivation
• level of cooperation, creativity, specific objectives of the subjects involved.

Teachers’ participation may be evaluated with regard to:
• personal commitment
• level of motivation
• communication.

Final evaluation phase could include questionnaires, discussions and a videoconference. The evaluation tools for pupils can be chosen according to their age: polls, web 2.0 tools such as Wallwisher, Voicethread with mp3 files for pupils to give their opinions, Glogster etc.

Follow-up
The materials, especially the blog can be used in the following years as auxiliaries for teaching certain topics. The project can be expanded to other cultural topics, using Maths for example in a more advanced way to study paintings in a Museum, as a vehicle for learning communication and mutual understanding.

• An Exhibition could be run in schools with project materials
• The Posters on-line could be published in the school web site, leaflets etc

Expected Results
Results in terms of quantity:
• Improved class results (reflected in grades) for the participant pupils

Results expressed in qualitative terms:
• Improved use of ICT skills and English communication for both pupils and teachers.
• Improved social skills and teamwork for all the participants.
• A better ability to perceive learning as a complex of activities in various fields, improvement of cross-curricular teaching strategies.
• A new way to access knowledge through personal constructions.
• A perception based on tolerance, diversity and intercultural dialogue
• Expanding cultural horizon of pupils and school teachers

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