

ASIA-EUROPE CLASSROOM NETWORK (AEC-NET) PROJECTS FOR 2011/2012



PROJECT FACTSHEET

NAME AND CONTACT DETAILS OF PROJECT CO-ORDINATOR(S)

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NAME AND MAILING ADDRESS OF HIGH SCHOOL OR SECONDARY SCHOOL:

Linwood College
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COUNTRY:

New Zealand

PROPOSED PROJECT NAME:

Maths In OUR World

PROJECT DESCRIPTION / SUMMARY

Mathematics is widely used in our society because it enables us to study and understand various fields, and plays a vital role in our day to day living. Thus, deep understanding of the essentials of Mathematics must be pursued. This project uses the Mathematics from the unique cultures of the students involved, in problem-solving activities and Mathematical games and puzzles, to learn both vital Mathematics skills and cultural appreciation in an exciting way. Students will have great opportunities to learn Mathematics through games and puzzles accompanied by Mathematical Concepts, but at the same time students will surely experience fun and excitement while they are learning.

Each culture has unique Mathematical contexts. One example is that the Maori culture in New Zealand uses a lot of symmetry and tessellation in their traditional artwork and motifs. Students will investigate these unique Mathematical contexts and solve problems and puzzles related to these cultural aspects. Students can play existing Maths games involving these cultural aspects, or create their own related Maths games using whatever software they choose – starting with Microsoft Powerpoint, with the possibility of writing their own software for students who already know how to write computer programmes (as an extension task).

The students will share their work and communicate via online forums (eg Wikispaces), and possibly Video Conference units where available. There will be a Wikispace set up for the project, utilising the new Projects feature to set up groups for each class involved. The videos that students create will be shared with the other group members via the Wikispace, with the possibility of sharing with the public on YouTube if the students/teachers would like to.

RATIONALE FOR THE PROJECT:

This project seeks to engage students in mathematical problem-solving, and to promote and develop students' ability in solving mathematical problems through:

- improving analysis and analytical understanding;
- enhancing speed, fluency and accuracy of the students' Mathematical tools;
- strengthening retention skills.

The project also aims to foster a greater cultural understanding between students of different cultures, by using Mathematics problem contexts and Maths games which are unique to each participating school's country and culture.

EXPECTED CONTRIBUTION FROM ASIAN SCHOOLS/STUDENTS:

Students will investigate aspects of Mathematics which are unique to their culture.

- Investigate these cultural aspects and publish their findings using MS Office or a video
- Solve Maths problems with unique cultural aspects
- Design a Maths game that highlights the cultural aspects, using whatever software they choose, and publish this game to the other participants to play

EXPECTED CONTRIBUTION FROM EUROPEAN SCHOOLS/STUDENTS:

The same as above.

MINIMUM NUMBER OF SCHOOLS/STUDENTS INVOLVED:

No. of Schools / Students	:	3-7 schools in different countries, each with at least one class of students involved
Students Age Group	:	11-14
Level of English	:	Intermediate

PROPOSED DURATION OF PROJECT (PLEASE STATE TENTATIVE START AND END DATE):

Duration	:	5 months
Start Date	:	20 February 2012
End Date	:	29 June 2012

ICT TOOLS / SOFTWARE REQUIRED:

- Microsoft Office
- Digital camera
- Video Camera and video editing software
- Video Conference unit is optional

ADDITIONAL RESOURCES NEEDED:

- Students or teachers with programming experience could use this in this project, but it is not required

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