1. Title of the Online Collaboration

Mathematics Mystery Unveiled

2. Name and contact details of project co-ordinators

Ms Monika SEHGAL  
Mathematics Teacher  
St. Mark’s Girls Sr. Sec. School  
India  
E: monikaprisha@gmail.com  
W: http://www.saintmarksschool.com/girls_school/

Ms Anjali HANDA  
Science Teacher  
St. Mark’s Girls Sr. Sec. School  
India  
E: pisces.anjali@gmail.com  
W: http://www.saintmarksschool.com/girls_school/

3. School description

St. Mark’s Girls Sr. Sec. School is an outstanding school for girls, with a multicultural emphasis that helps to create global citizens capable of facing the future with optimism. There are over 2700 students representing various religions and background.

4. Summary of the Proposed Online Collaboration

‘Mathematics mystery unveiled’ invites students from Asia and Europe to share the applications of mathematics in their daily lives and explore the unknown areas of mathematics. As teachers, we would love to share and learn the power that this subject provides one with, the true spirit of delight, the exaltation, the sense of being more than human, which is the touchstone of the highest excellence.

We will share the latest researches and how mathematics has always amused people with the beauty of its method, results, experience, philosophy, information theory and arts. The students and teachers from Asia and Europe will be able to get a better understanding of the subject and tackle misconceptions on various topics we deal with. Hopefully it will create a conducive environment and students will realise the real beauty of mathematics and love the subject even more.

We would also like to share videos and articles regarding any topics and will be open to discuss in detail and expand the horizons as mathematics extends to infinity. The students are encouraged to set a project based on mathematics and share it among the peers by producing videos, articles,
graphics and publish it through multimedia platforms. The videos and articles will be compiled in Blogspot or a website that can be shared with our community and the public. It will not only enhance student’s ICT skills but also strengthen teamwork.

Join us for exploring how beautiful mathematics is.

5. The Online Collaboration falls under the main themes of:

Please state “1” to “3” in level of relevance

- [ ] Arts & Culture
- [ ] Business & Entrepreneurship
- [ ] Education
- [ ] Environment & Sustainable Development
- [ ] Others. Please specify below:

- [ ] Health
- [ ] History
- [ ] Media
- [ ] Science & Technology

6. Duration of the Online Collaboration:

Start Date: 1 January 2019
End Date: 31 July 2019
Duration: 7 months

7. Expected no. of schools/students involved and level of language and ICT skills

- No. of Schools in total: Flexible, Min: 3, Max: 20
- No. of Students in total: Flexible, Min: 5, Max: 10, per school
- Students Age Group: 13 – 18 years
- Level of English: Intermediate
- Level of ICT Skills: Intermediate

8. ICT tools/software required

<table>
<thead>
<tr>
<th>Word processing software</th>
<th>Video conference tools</th>
<th>Storage tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Adobe Acrobat Reader</td>
<td>✓ Skype</td>
<td>✓ Dropbox</td>
</tr>
<tr>
<td>✓ Google Docs/Sheets</td>
<td>✓ Viber</td>
<td>✓ Google Drive</td>
</tr>
<tr>
<td>✓ Microsoft Word/Excel</td>
<td>[ ] Vyew</td>
<td>[ ] iCloud</td>
</tr>
</tbody>
</table>
### Social media
- [ ] Ask.fm
- [x] Facebook
- [ ] Flickr
- [ ] Instagram
- [ ] Pinterest
- [ ] Tumblr
- [ ] Twitter
- [ ] Weibo

### Image editing software
- [ ] Adobe Illustrator
- [ ] Adobe Lightroom
- [ ] Adobe Photoshop
- [ ] BeFunky (online)
- [ ] Sketch (Mac only)

### Online collaboration
- [ ] Mindmeister
- [ ] Slack
- [ ] Telegram
- [ ] Trello

### Video/audio editing software
- [x] Adobe Premiere
- [x] Audacity
- [x] Garageband (Mac only)
- [ ] Soundcloud
- [x] Windows Movie Maker
- [x] Youtube

### Presentation
- [x] Google slides
- [x] Microsoft Powerpoint
- [x] Prezi

### App development
- [ ] Adobe Flash builder
- [ ] Alpha Software
- [ ] Appy Pie

### Others (please specify):
- [ ] Facebook
- [ ] Adobe Lightroom
- [ ] Adobe Photoshop
- [ ] BeFunky (online)
- [ ] Sketch (Mac only)
- [ ] E-reader
- [ ] GoPro
- [ ] Interactive Whiteboard
- [x] NA

### 9. Other resources needed:
- [x] Camera
- [ ] Desktop Computer/Laptop
- [x] Digital Projector
- [ ] Voice Recording Devices
- [ ] E-reader
- [ ] GoPro
- [x] OHP
- [ ] Smart Phones
- [x] Tablet

Others (please specify):
10. Learning objectives and outcomes for teachers and students
(Please list at least 3 learning objectives and outcomes for teachers and students respectively.)

<table>
<thead>
<tr>
<th>Learning Objectives</th>
<th>Outcomes</th>
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</thead>
<tbody>
<tr>
<td>Teachers should join to:</td>
<td>For Teachers:</td>
</tr>
<tr>
<td>1. Share knowledge on the applications of mathematics in real life</td>
<td>1. Sharing articles and videos on the mystery/beauty of Mathematics</td>
</tr>
<tr>
<td>2. Create a better network and intercultural understanding between teachers from Asia and Europe</td>
<td>2. New network among teachers from Asia and Europe</td>
</tr>
<tr>
<td>3. Increase ICT skills</td>
<td>3. Skills on using ICT and tools for online projects</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students will learn to:</th>
<th>For Students:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Understand the subject and enjoy mathematics</td>
<td>1. Sharing articles, videos and projects/models made during their school exhibitions or fairs</td>
</tr>
<tr>
<td>2. Use tools and ICT for online collaboration</td>
<td>2. Online discussion on Facebook and Blogspot and use ICT tools to produce videos</td>
</tr>
<tr>
<td>3. Work as a team and enhance multicultural understanding</td>
<td>3. Video and presentations of their conclusions and research. They will also create a new network amongst themselves</td>
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</table>

11. Timeline and activities of the Online Collaboration

<table>
<thead>
<tr>
<th>Phase</th>
<th>Activity</th>
<th>Main Coordinator</th>
<th>Teachers</th>
<th>Students</th>
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</thead>
<tbody>
<tr>
<td>Phase 1 (Jan 2019)</td>
<td>▪ Set-up Facebook group and invite members to the group</td>
<td>✔</td>
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<td></td>
<td>▪ Self-introduction by all participating members</td>
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<td>✔</td>
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<td></td>
<td>▪ Match the Group works between Asian and European Schools</td>
<td>✔</td>
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<td>Phase 2 (Feb to April 2019)</td>
<td>▪ Research and share information found in their country</td>
<td></td>
<td>✔</td>
<td></td>
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<td></td>
<td>▪ Upload information on online platform</td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Phase 3 (May to June 2019)</td>
<td>▪ Showcase of the research in the respective countries through an exhibition/fair/class activity</td>
<td>✔</td>
<td>✔</td>
<td></td>
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<tr>
<td></td>
<td>▪ Record videos and upload on online platform</td>
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<td>✔</td>
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ASEF Classroom Network (#ASEFClassNet)
New School Collaboration 2019 - Proposal

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<tr>
<th>Phase 4 (July 2019)</th>
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<tr>
<td>Feedback and evaluation</td>
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For further details about this online collaboration, please contact the coordinator directly.

Europe

ASEF’s contribution is with the financial support of the European Union.