

Joyful Learning of Mathematics through active participation in Fold, Unfold and Refold Shapes

A three Days Workshop
Date- 25 and 27-28 April, 2023

Midnapore Science Centre



In collaboration with

Mahatma Gandhi College, Lalpur, Purulia



Venue and host

**Mahatma Gandhi College Lalpur
Daldali, Purulia**

Supported and Catalyzed

by

National Council for Science and Technology Communication, DST, New Delhi

ACTIVITY REPORT

History: Principal of M. G. College, Dr. Santi Kundi thought that inspiring program for Science Students of local Schools was a very apt and appreciable proposal for Purulia district. He approached Midnapore Science Centre in May, 2021 to organize a Workshop to motivate the school students in science. After Several communications and sittings with Mr. Suchand Kumar Pan, Secretary, Midnapore Science Centre, Mr. Pan informed us that they had received funding from DST and we might arrange a three Days Workshop entitled “**Joyful Learning of Mathematics through active participation in Fold, Unfold and Refold Shapes**”. M. G. College communicated with twelve selective local Schools and after discussion with them it was decided that eight Students of class VII and VIII along with one teacher from each of the schools would participate in the workshop on 18th, 19th, 20th April, 2023. Due to heavy heat wave in Bengal, Government of West Bengal declared summer holiday from 17th April, 23 to 22nd April, 2023. So the workshop was rescheduled on 25, 27-28 April, 2023 with the consent of all schools and Midnapore Science Centre and successfully completed the said workshop on 28th April, 23.

Three Day Workshop on “Joyful Learning of Mathematics through active participation in Fold, Unfold and Refold Shapes”

Place: Mahatma Gandhi College, Lalpur, Purulia
Organized by: Science Centre, Golkuarchawk, Midnapore- 721101
Supported and Catalyzed by: National Council for Science and Technology
Communication, DST, New Delhi

Day 1- In brief, 25th April, 2023

Resource Persons and organizers are present in the workshop.

1. Suchand Kumar Pan
Secretary, Science Centre and Ex HM of Midnapore Collegiate School
2. Sabita Manna
Teacher, Salboni Nichu Manjari Girls High School
3. Ananda Kumar Das
Teacher, Aaulia High School
4. Pradip Kumar Mahanti
Ex- HM Vivekananda Sikha Niketan Najargang, Midnapore
5. Sukumar Bera
Ex- HM, Madpur High School
6. Biswajit Bera
7. Lab instructor IAPT Centre for Scientific Culture, Midnapore College

Member present form M. G. College

1. Professor Rahul Chakrabarti
Associate Professor, Department of English
2. Dr. Kalyan Senapati
Assistant Professor, Department of Chemistry
3. Prof. Susanta Mallick
Assistant Professor, Department of Zoology

Activity

1. Registration
2. Inauguration of the workshop
As an anchor Prof Seuli Ray, Assistant Professor of Geography, introduces all the resource persons and teachers presents in the program. The program was inaugurated with an inaugural song “Alo amar alo”, sung by the students of Science department, followed by enkindling of “Pradip” by all resource person and Professors of M. G. College present in the workshop. The program was handed over to the “Midnapore Science Centre” after the valuable speech of the delegates present on the dais.

- i. Professor Rahul Chakrabarti, Associate Professor of English, Mahatma Gandhi College encouraged all the participating students to endear mathematics and proceed fearlessly on the way of scientific understanding of how nature works.
- ii. Suchand Kumar Pan, Secretary, Midnapore Science Centre, encouraged all participants regarding Math and paper cutting methodology to learn math in joyful manner.
- iii. Mr. Pradip Kumar Mahanti, Ex- HM Vivekananda Sikha Niketan Najargang, Midnapore, encouraged the students in origami.

The main course of the workshop began accordingly and the following topics were discussed and imparted to the learners with the pen and paper in the following sequences.

3. History of origami i.e. paper folding
4. Idea of fold
5. Bases (cutting of square paper from a rectangular paper)
6. Square/ Preliminary Base
7. Water Bomb Base
8. Kite Base (Duck preparation)
9. Bard Base
10. Cube from single paper
11. Heard base
12. Rosette (circle from rectangular paper)

Day 2- In brief, 27th April, 2023

Resource Persons and organizers are present in the workshop.

1. Sabita Manna
Teacher, Salboni Nichu Manjari Girls High School
2. Tarak Kumar Sahoo
Teacher, Kenduapal primary school
3. Pradip Kumar Mahanti
Ex- HM Vivekananda Sikha Niketan Najargang, Midnapore
4. Dr. Makhan Lal Goswami
Associate Professor, Midnapore College (Autonomous)
5. Dr. Ranjan Kumar Maishal,
Teacher Analberia High School, Purba Medinipur
6. Siddharta Sankar Pandit
Teacher, Lauria Primary Schoo.

Member present form M. G. College

1. Dr. Santi Kundu
Principal, M.G. College, Lalpur
2. Dr. Kalyan Senapati
Assistant Professor, Department of Chemistry
3. Prof. Susanta Mallick
Assistant Professor , Department of Zoology

Activity

1. Recapitulation of all the method taught.
2. Origami set square
3. 6-Moduler cube
4. 3-Moduler Diamond
5. Open face cube (Pen Stand)
6. Pyramid
7. Flex Hexagon
8. DNA helix

Day 3- In brief, 28th April, 2023

Resource Persons and organizer are present in the workshop.

1. Suchand Kumar Pan
Secretary, Science Centre and Ex HM of Midnapore Collegiate School
2. Dr. Ranjan Kumar Maishal,
Teacher Analberia High School, Purba Medinipur
3. Sabita Manna
Teacher, Salboni Nichu Manjari Girls High School
4. Pradip Kumar Mahanti
Ex- HM Vivekananda Sikha Niketan Najargang, Midnapore
5. Sukumar Bera
Ex- HM, Madpur High School
6. Pralay Kumar Pan
HM, Meudipur Hiigh school.

Member present form M. G. College

1. Dr. Santi Kundu
Principal, M.G. College, Lalpur
2. Dr. Kalyan Senapati
Assistant Professor, Department of Chemistry
3. Prof. Susanta Mallick
Assistant Professor , Department of Zoology

Special Guest Present in the program

1. Dhrubojoty Chakraborty
District Science Officer, Purulia

Activity

In continuation of the last day activity the following activities were performed

1. Recapitulation of all the method taught in the workshop.
2. Prism
3. Motor boat
4. Hexagon
5. Octagon
6. Different triangle

7. Competition of making Helix using rectangle paper
8. Valedictory
 - i. Dr. Santi Kundu, Principal, M. G. College, encouraged the students regarding teaching learning process by means of enjoying the topic as well as to join the curriculum at M.G.College after the completion of their school.
 - ii. Mr. Suchand Kumar Pan, Secretary, Midnapore Science Centre encouraged all the participants as well the school teachers regarding other aspects of science that we could arrange similar workshops on. He assured all interested institutes of the availability of Resource person that the Science Centre would provide.
 - iii. Dhruvajyoti Chattopadhyay, District Science Officer, Purulia encouraged and motivated all students regarding current science and Technology.
9. All participants and the School teachers received their participation certificates from the delegates present in the workshop. Teachers and Students expressed their gratitude to “Midnapore Science Centre” and “Mahatma Gandhi College, Lalpur.
10. Students of Y. S. S. K. Vidyapith (boys),Lakhanpur, received best performance award for making helix with paper form Dhrubojoty Chakraborty, District Science Officer, Purulia
11. The Program ended with the vote of thanks from Prof. Susanta Mallick, Assistant Professor, Department of Zoology, M. G. College.

Time Table of the Workshop

Collaborator and Venue:- M. G. College, Lalpur

Day 1 – Tuesday, 18.04.2023

9.30 AM	Entry to College for students and Teachers
9.30 AM to 10.00 AM	Registration and Tiffin (Without registration students are not allowed to participate in the program). Registration fee - NIL
10.00 AM-10.15 AM	Feedback Session
10.45 AM -1.30 PM	1 st Technical Session
1.30 PM - 2.15 PM	Lunch break
2.15 PM – 4.15PM	2 nd Technical Session
4.15 PM - 4.30 PM	Post day discussion and Refreshment

Day 2 – Wednesday, 19.04.2023

9.30 AM	Entry to College for Students and Teachers
9.30 AM to 10.00 AM	Attendance and Tiffin
10.00 AM -1.30 PM	3 rd Technical Session
1.30 PM - 2.15 PM	Lunch break
2.15 PM - 4.15PM	4 th Technical Session
4.15PM - 4.30PM	Post day discussion and Refreshment

Day 3 – Thursday, 20.04.2023

9.30 AM	Entry to College for Students and Teachers
9.30 AM to 10.00 AM	Attendance and Tiffin
10.00 AM-2.00 PM	5 th Technical session
2.00 PM-2.45 PM	Lunch break
2.45 PM – 4.30PM	Valedictory Session, Feedback and Refreshment

Note:-

1. Every student must carry his/her Geometrical Box and water bottle.
2. Every School must appoint a student leader among the participants for smooth conductance of the Program.
3. All participants may carry MASK as per their choice.
4. Students must wear proper School dress.

*****Due to unavoidable situation arises i.e. our state government declared one week summer vacation because of very high heat wave. And so our workshop was postponed for one week. Revised schedule of the program was as follows.**

Collaborator and Venue:- M. G. College, Lalpur

Rescheduled Date and Time Table

Day 1 – Tuesday, 25.04.2023

9.30 AM	Entry to College for students and Teachers
9.30 AM to 10.00 AM	Registration and Tiffin (Without registration students are not allowed to participate in the program). Registration fee - NIL
10.00 AM-10.15 AM	Feedback Session
10.45 AM -1.30 PM	1 st Technical Session
1.30 PM - 2.15 PM	Lunch break
2.15 PM – 4.15PM	2 nd Technical Session
4.15PM - 4.30 PM	Post day discussion and Refreshment

Day 2 – Wednesday, 27.04.2023

9.30 AM	Entry to College for Students and Teachers
9.30 AM to 10.00 AM	Attendance and Tiffin
10.00 AM -1.30 PM	3 rd Technical Session
1.30 PM - 2.15 PM	Lunch break
2.15 PM - 4.15PM	4 th Technical Session
4.15PM - 4.30PM	Post day discussion and Refreshment

Day 3 – Thursday, 28.04.2023

9.30 AM	Entry to College for Students and Teachers
9.30 AM to 10.00 AM	Attendance and Tiffin
10.00 AM-2.00 PM	5 th Technical session
2.00 PM-2.45 PM	Lunch break
2.45 PM – 4.30PM	Valedictory Session, Feedback and Refreshment

Note:-

1. Every student must carry his/her Geometrical Box and water bottle.

2. Every School must appoint a student leader among the participants for smooth conductance of the Program.
3. All participants may carry MASK as per their choice.
4. Students must wear proper School dress.

Photo Gallery



Inauguration



Thus begins the Happy journey into the realm of Mathematics



Mentors: they know their craft and also the minds of learners



The sauce of amazement makes the lunch even more enjoyment



The Mentor and the mentree- one to one



The Math fun continues



The Math fun continues



Faces proudly display the joy of achievements



Faces proudly display the joy of achievements



Speech from Mr. Dhruvajyoti Chattopadhyay (left) and Dr. Santi Kundu (right).



Speech from Mr. Suchand Kumar Pan (left). Best performance award from Mr. Dhruvajyoti Chattopadhyay (right)



Valedictory session



The garner an experience is glorious in itself- participants leave the college campus with a memory to cherish for ever



They assisted their junior- guests in an experience which was novel to them.

Reported By
Dr. Kalyan Senapati

IQAC Convener
Mahatma Gandhi College, Lalpur
Purulia