



P.K.M. COLLEGE OF EDUCATION

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PROGRAMME PORTFOLIO

DEPARTMENT OF PHYSICAL SCIENCE 2017 - 19



REPORT OF FIRST SEMESTER

2017 -2019 BATCH

21st AUGUST 2017 - 22nd DECEMBER 2017

The first semester classes for two year B.Ed program 2017 – 19 batch began on 21st August 2017. Along with the regular college activities the following novel practices were conducted during first semester.

COURSE INITIATION CEREMONY

The course initiation ceremony was conducted on 21st August 2017. Dr. Mohan Raj was the chief guest. He is a retired college professor and an artist. As a symbol of course initiation the teachers hand over the ignited lamp to the students.

ORIENTATION AND BRIDGE PROGRAM

Orientation and bridge program conducted to motivate student teachers. The program conducted in three parts. The first part conducted on 23rd August 2017. The class led by sri. KPA Raheem . He is a retired higher secondary teacher and a well known orator. The second part taken by Dr. Nirmal Kumar on 25th August 2017. He is a resource person for teachers training. The third part of the program conducted on 16th September 2017. It was handled by sri. Manoj. He is a D.Ed college teacher as well as a former teacher of PKM college.

SELF EXPOSITION

The self exposition of Physical Science department conducted on 25th August 2017. Each student teacher of the class introduced themselves. After that a science drama played by Anusree, Sangeetha, Priya, Ribina, and Liya. And Mrgam Kali performed by Laya, Ponnisha, Anju Minumol and Jilu.

ASSEMBLY

The assembly was conducted twice by the students of Physical Science department. The first assembly was led by Liya and the second assembly was led by Laya. In the first assembly the special program conducted was an easy way for the multiplication of three digit numbers from

Vedic Mathematics. It was performed by Ribina and Priya. In the second assembly the special program was quite funny and informative. It was about some simple and informative things about the college. It was performed by Anju and Ribina.

UNION INAGURATION

College union and fine arts inauguration conducted on 19th August 2017. Riya Mary Thomas selected as the union chairperson. Ponnisha Thomas selected as the Physical Science department class representative. Sri. Chandrasekaran Thikkodi was the chief guest. After inaugural ceremony a drama played by Bamboo theaters. Cultural program conducted in afternoon section. Anju, Jilu, Laya, Minumol, Ponnisha, and Sangeetha participated in cultural programs.

ONAM CELEBRATION

Onam celebration conducted on 30th August 2017. Sri. Ramesh Blatoor was the chief guest. There were different competitions for student teachers and teachers. Liya Joy got first runner up in malayali manka competition, Laya got first prize in lemon on spoon and Ponnisha got second prize in sundarikkupottuthodal competition.

TEACHERS DAY CELEBRATION

International teachers day celebration conducted on 5th October 2017. Kerala state best teacher award winner Mrs. C.R. Komalavalli was the chief guest. Ponnisha was the chief coordinator of the celebration. Teachers day's special documentary film, cultural program, and funny games for teachers were conducted. Anusree, Priya and Anju participated in cultural program.

CLUB ACTIVITIES

There are seven clubs working in college. Student teachers took membership in different clubs. Liya Joy selected as the convener of Bhoomitra Sena club and Ribina V selected as the convener of the Mathematics club. Different clubs organized innovative programs.

HOUSES

The student teachers are divided into four houses. The names of the four houses are Nile, Okavango, Volga, and Tigris. Jilu Simon selected as the captain of the Nile house.

CHRISTMAS DAY CELEBRATION

Christmas day celebration was conducted on 22nd December 2017. Mr. Rithwik S Chand was the chief guest. He is a music director and a singer. There was special performance of the guest in

the function. Cake cutting, carol song and Christmas gift exchange were the important features of Christmas celebration. Minumol and Jilu participated in carol song.

OBSERVANCE OF SCIENTIFIC DAYS OF IMPORTANCE

1. International Ozone Day Celebration and State Level Seminar

International ozone day was celebrated in P.K.M College of Education, Madampam on 15th September, 2017 and the programme was extended to the five co-operative schools. The programme was sponsored by Kerala State Council for Science, Technology and Environment. A state level seminar on “Healing Our Ozone Together” was also organized on 15th September, 2017.

The Ozone day celebrations and State level seminar was started with a formal inaugural session (Outdoor) at 9.30 am. Mrs. Liya Joy, student teacher, Dept. of physical science welcomed the gathering. The presidential address was given by Dr. Stephen T A, Principal of P.K.M. College of Education. The project description was given by the programme coordinator, Dr. Prasanth Mathew, Assistant Professor in Physical Science P.K.M. College of Education. He has delivered speech on the importance of our responsibility to protect the Ozone layer. The programme was inaugurated by chief guest Dr. M.K. Sathesh Kumar, Adjunct Professor, Manipal University by releasing colorful balloons attached with the Ozone protection message in the sky. The student coordinator of the programme Mrs. Anusree V.P proposed the vote of thanks.



The seminar session started with the welcome speech of Ms.Ribina V, the student coordinator. Dr. M.K. Satheesh Kumar, spoke on the topic '**Protect the Ozone, Save Life on Earth**'. He explained the theory as well as practical aspects regarding ozone layer depletion. The session was concluded by the vote of thanks proposed by Ms.Laya Luka, student teacher of physical science department.



The second session started with the welcome speech of Ms. Minumol Thomas, student teacher of physical science department. Dr.P.Manoharan (Emeritus fellow U G C, Department of Sanskrit, Govt. Brennen College, Thalassery) dealt the topic '**Ozone Protection and Ethno Awareness**'. He introduced various medicinal plants in our surroundings. Ms.Jilu Simon, student of physical science dept. concluded the session through her vote of thanks.



The documentary film 'Ozone the Real Reality', edited by Department of Physical Science, was released by Dr.P.Manoharan and presented in the afternoon session. This documentary presentation featured about the whole information about the ozone layer, the protecting cover of our earth from UV rays. Also this documentary film was distributed to five nearby schools of PKM College of Education, Madampam.

After the documentary film presentation, the valedictory session was held. In that session certificate distribution of the participants were done by Dr. P Manoharan. The session was concluded with the vote of thanks by Ms. Anusree V P, student coordinator.



Also the documentary film ‘Ozone The Real Reality’ was presented at five co-operative schools of the PKM College of Education, Madampam.

2. Kerala Rally for Science

IQAC and Department of Physical Science of P. K. M. College of Education Madampam, organized a college level seminar AnweshA –2017 on the topic “Science and Society “as a part of Kerala Rally for Science. Ponnisha Thomas and Minumol Thomas were the coordinators for the programme. It was held on 7th November 2017 at 9:30 am in P. K. M College of Education Madampam. The resource person for the program was Prof. N. K Govinan Rtd. Principal, Krishna Menon Memorial govt. Women’s College, Kannur. In his speech he criticized the superstitious beliefs existing in our society even among the highly educated people. He pointed out that, science represents the truth not the delusions. And also he said several contextual examples for focusing the drastic changes in the concepts and lifestyles of today’s generations, which is completely useless.

1. Science literacy mission

Science literacy mission is the programme launched as the part of Kerala rally for science. This is mainly focused on science in everyday life. The first part was published in the title “kitchen Science” on November 7th. It helped to convince that science has a place in kitchen or kitchen is a great place to explore science.

And mentioned about the further steps of the mission and titled as agricultural science, cosmetic science and home science.

2. Birth day of C V Raman and Marie Curie

Scientific temper aims to turn science as the common sense in society rather than a mere subject study.

7th November 2017 marks the 150th birthday of the pioneering physicist- chemist Marie curie, and coincides with the birthday of the great Indian scientist C V Raman. November 14 is the birthday of India’s first Prime Minister Jawaharlal Nehru, who worked to lead India in the path of scientific progress and to spread scientific temper in society. So a

brief biography of C. V Raman and Mary Curie was presented to give some idea about their life to all students.



3. Presentation of Nobel Laureates 2017

The department of physical science organized to present a brief introduction about the Nobel Laureates 2017. On 9th October 2017, Ms. Ponnisha Thomas, student of physical science department gave a brief introduction about the history of Nobel Laureates in the previous years. And also gave an idea about Nobel Laureate 2017 through the power point presentation with audio.



WORKSHOPS

1. Class Room Based Research Projects

A workshop on “class room based research projects” was conducted on 23rd September 2017 Saturday at 9:30 AM to 12:30 PM in general hall, PKM college of education Madampam. The workshop was organized by Department of Physical science, incorporated with English and Malayalam Department. The coordinator of this workshop was the Resource person Dr. Prasanth Mathew, Assistant Professor in Physical science & Research guide in Education. The themes of this workshop were designing class room based research projects in education, writing a research project proposal in education and writing a research article in education



2. Workshop on communication in science

A workshop was conducted on the topic “Communication in Science” under the leadership of Liya Joy on 17th November. The topics discussed were:

- i. Lecture cum demonstration method- by Anju Mariya
- ii. Project method- by Anusree V P
- iii. Problem solving method - by Jilu Simon
- iv. Heuristic method - by Laya Luka
- v. Historical method - by Liya Joy
- vi. Brainstorming method - by Minumol Thomas
- vii. Group discussion- by Ponnisha Thomas
- viii. Seminar/ Conferences/ Workshops/Symposium- by Priya Joy
- ix. Collaborative learning approach- by Ribina V
- x. Experiential learning- by Sangeetha C P



URJA KIRAN

Liya Joy and Anju Maria were authorized to attend a workshop “UrjaKiran-energy management and conservation campaign” held at Kannur, Science Park on 25th August 2017. Urja Kiran is the Energy Conservation Awareness Campaign (ECAC) conducted by Energy Management Centre and Centre for Environment and Development. A project proposal was sent by the college with an objective to make the public aware of energy conservation and the proper utilisation of the resources.

URJA KIRAN PROPOSAL ACCEPTANCE

UrjaKiran proposal was provisionally accepted; student co-ordinators (Liya Joy and Anju Maria) attended the workshop held on 23rd November 2017 at New Nalanda Hotel, Kozhikode. The workshop gave instructions regarding the organisation of the social awareness programmes. The programmes that got approval are: an awareness class and public meeting including the Eruvessi and Chengalai Panchayath.

URJA KIRAN RALLY

An energy conservation rally and meeting was organized by P.K.M College of Education in collaboration with Energy Management Centre (EMC). The meeting was conducted at P.K.M College, Madampam. The rally was addressed by Sri. Binoy Parambettu, (Sreekandapuram Municipal Councilor). Dr. Stephen T.A (principal), Liya Joy (student coordinator) was also present at the meeting.





COMMUNITY PROGRAMME

On behalf of sathyansmarakavayanasala and PKM College of Education Madampam a science exhibition and awareness class conducted on 21st November 2017. The main intention of the programme was to improve the scientific awareness and eliminate superstitious beliefs in village people. The class was conducted by Sri Biju Neduvaloor resource person of sastrasahihyaparisad. Anju Maria Mullor represented physical science department for delivering felicitation. In the same occasion, an audio CD on daily science as part of science literacy mission developed by Physical Science Department of PKM College was telecasted. Also still models, carts, posters etc. were also exhibited in the programme.



OTHER INNOVATIVE WORKS

1. Audio Text

On 29th August 2017 a concept of audio text introduced in the class. The major objectives were to improve the reading habit of student teachers. And to help auditory learners and blind students. On 31st August 2017 started the arrangements for the audio text. Students were divided into different groups. Distributed three chapters for each student for recording. The time allotted was 10 days. Finally after recording and merging the final output has come in the form of a compact disc. On 11th August 2017 Dr. Rekha K.R, principal in charge published the compact disc by hand over the CD to Dr. Prasanth Mathew. Trailor of the audio text was released during the assembly.



2. Assignment on 'History of eminent scientists and their contribution'

The students of physical science department was assigned to prepare the 'History of eminent scientists and their contribution ' as an assignment and submitted on 16th November 2017 in a digitalized form as an individual work.

3. Classroom Discussion on How Science Works

As part of classroom discussion, we were asked to develop the steps involved in scientific research. Everyone developed designs on ‘ what is science?’, the steps involved, processes-technical & logical process, various scientific products etc.

The designs were submitted, and a generalized design was given by sir. It includes all the scientific processes and products following a systematic way generated through scientific method of investigation.

4. Answer bank

An answer bank was prepared for the first semester syllabus. Sangeetha C.P. took initiative for the preparation of answer bank. The answer bank include a collection of best answers for each topic in the syllabus. The answer bank prepared by regular class room discussion, referring textbooks and online resources.

BIRTHDAY CELEBRATIONS

Birthdays of each student is important and it was decided to celebrate birthdays, giving surprise to make them feel special on the special day. Anusree's birthday was on 19th October. Prasanth sir's birthday was on 24th October. And Sangeetha's birthday was on 20th December.



PUBLICATIONS

1. An audio text developed for the people one who can't read published on 11th August 2017. Dr. Rekha K.R, principal in charge hand over the CD to Dr. Prasanth Mathew.
2. A news letter was published after Ozone day celebration which include the description of entire program of the Ozone day. A copy of the news letter distributed to each department and teachers.
3. An audio CD of science in daily life released as a part of science literacy mission at Satyan Smaraka Vayanasala, Madampam on 25th November 2017.

ROLES ASSIGNED

1. Class management : Priya and Anju
2. Science lab : Sangeetha and Laya
3. ICT : Liya and Anusree
4. Research : Ponnisha and Ribina
5. Extension : Jilu and Minumol
6. Coordinators of Ozone day celebration : Anusree and Ribina
7. Coordinators of Urja Kiran : Liya and Anju
8. Coordinators of Science literacy mission : Ponnisha and Minumol
9. Coordinators of Answerbank : Sangeetha and Laya
10. Union member : Ponnisha
11. Club conveners : Ribina and Liya
12. House captain : Jilu

REPORT OF SECOND SEMESTER

PHYSICAL SCIENCE DEPARTMENT

2017-2019 BATCH

3rd JANUARY 2018- 28th MARCH 2018

P. K. M. COLLEGE OF EDUCATION MADAMPAM

The second semester classes for two year B.Ed program 2017-19 batch began on 3rd January 2018. Along with regular college activities the following novel practices were conducted during second semester.

SCIENCE CALENDAR

Physical science department released a digital science calendar on 3rd January 2018, on behalf of the beginning of the New Year. The releasing was done by Principal Dr. Stephen T.A. The science calendar includes important science related days, such as days which are devoted to celebrate science and birth days of scientists.



ASSEMBLY

The assembly was conducted twice by the students of physical science department. The first assembly was led by Laya Luka and the second assembly was led by Jilu. In the first assembly, the special program was the releasing of a science calendar. It was performed by Anusree and Minumol.

URJAKIRAN 2017-18

Public Meeting and Awareness Class

On 26th of January 2018 at St. Thomas A.L.P. School Kottoorvayal, a public meeting and an awareness class on “Energy Efficiency and Conservation” was conducted by Sri. Pathmanabhan A, sub engineer KSEB Sreekandapuram. Public meeting was inaugurated by Municipal chairman, Sri. P.P Raghavan. Kannur district EMC resource person Sri. Wilson Fransis participated in the program. Smt. Molly S. (Headmistress, St. Thomas A. L. P. School, Kottoorvayal) delivered the welcome speech. Dr Stephen T. A (Principal, P.K.M. College of Education, Madampam) addressed the gathering. Rev. Fr Jilesh Puzhakkarottu (Manager, St. Thomas A.L.P. School, Kottoorvayal) delivered the blessing note. Smt. Josephine Varghese (Councilor, Sreekandapuram Municipality), Sri. Biju P. (P.T.A. President, St. Thomas A. L. P. School, Kottoorvayal), Ms. Riya Mary Thomas (Chairperson, P.K.M. College of Education) were felicitated over the function. Ms. Liya Joy (Student Co-coordinator, Urjakiran, P.K.M. College of Education) delivered the vote of thanks.

Public participation was around 130 and consumer number of the participants was collected for monitoring the energy usage for the coming months. Prizes for best energy conservers were announced. As part of this for school and college students we conducted poster and e-collage competitions and organized an exhibition of the same.



RENEWABLE ENERGY PROMOTION WORKSHOP OF ANERT:

On 16th of February 2018, renewable energy promotion workshop of ANERT was conducted at Madampam Sunday School hall in association with Malabar Social Service Society (MASS). Participation is around 105 and the program was inaugurated by Sri C.J. Jose. The presidential address was given by Dr. Stephen T.A, Principal P.K.M. College of Education Madampam. EMC resource person Miss. Ashlin Raj was participated in the program. Sri. Mineesh V.K. sub-engineer, ANERT Kannur District, handled the awareness class on “Non-Conventional Energy Resources and Conservation”. The welcome speech for the program was given by miss. Liya Joy and the vote of thanks delivered by miss. Anju Maria. In that occasion best energy conserver awards of 2016-2017 year were distributed.



Sports Day

College sports meet conducted on 27th January, 2018 at Madampam ground. The presidential address was given by Ms. Riya Mary Thomas, college union chairperson. The programme was inaugurated by T. Radhakrishnan (ASI, Sreekandapuram Town Police Station). The programme started at 9am and extended up to 2.30pm. Jilu Simon was awarded as the individual champion and Ponnisha Thomas got second prize in standing jump. All students of physical science department actively participated in different items.

Arts Day

Arts day celebration, 'Malhar' 2K18 conducted on 17th January, 2018 at college auditorium. The programme was inaugurated by Roshna Suresh, one of the student teacher.

Anju Maria got first prize in essay competition and third prize in poetry writing (Malayalam), first prize in oppana and third prize in thiruvathira. Liya got first prize in elocution (English) and first prize in thiruvathira. Priya got second prize in poetry writing (Malayalam) and third prize in thiruvathira, Ponnisha Thomas got second prize in monoact, first prize in mime, second prize in oppana and third prize in thiruvathira, Minumol thomas got first prize in folk song, Laya Luka and Jilu Simon got first prize in mime and third prize in thiruvathira and second prize in oppana, Anusree V P, Ribina V and Sangeetha C P got third prize in thiruvathira.

Roles Assigned

Jilu Simon: House Captain

Ribina V, Priya Joy, Liya Joy: Result Committee

Anusree V P, Ponnisha Thomas: Tabulation Committee

Minumol Thomas, Laya Luka: Programme Committee

BIRTHDAY CELEBRATIONS

On 18/1/18, during field trip, we have celebrated birthdays of Ms Liya Joy and Ms Laya Luka with cake cutting ceremony.



SCIENCE DRAMA

On 14/3/18 respected principal Dr Stephen T.A, published the book named “Science drama” which is prepared by students of physical science department by handing it over to Dr Prasanth Mathew, Asst. Professor in physical science department. The aim of this publication is to make children active in their learning process. This book simplifies facts and concepts of science in the form of drama which motivate the student to learn the subject.



WORKSHOP

COOPERATIVE LEARNING STRUCTURE

A workshop was conducted on the topic “Cooperative learning structure” under the leadership of Priya Joy & Sangeetha C P on 16th March. The topics discussed were:

- i. Team line up, Gallery walk & Team word webbing- by Anju Mariya
- ii. Round robin, Find the fib & Three stay one stay- by Anusree V P
- iii. Circle the sage, Rally coach & Talking chips - by Jilu Simon
- iv. Value line and Numbered heads together- by Laya Luka

- v. Think pair share, Circle & Three step interview- by Liya Joy
- vi. Jigsaw, Slip writing & Structured problem solving- by Minumol Thomas
- vii. Corner, Send a problem & Pair check- by Ponnisha Thomas
- viii. Guess the fib, Partners & Three minutes review- by Priya Joy
- ix. Inside outside the table, Think pad brainstorming & Round the table
- By Ribina V
- x. Team pair share, Focused listing & Co-Op Co-Op - by Sangeetha C P

FIELD TRIP

The field trip of physical science department conducted on 18th January 2018 to 21st January 2018. We selected Mysore as the destination of our fieldtrip. Field trip conducted as a part of the curriculum of the physical science. The objectives of the field trip were to learn about the places which we visited through direct experience, and to strengthen the relationship between us, and above all participate and present papers in a national conference in Basudev Somani College.

On 19th January 2018 we participated in a national conference on Infrastructure and sustainable development issues and challenges and we presented two papers. One paper was developed by Liya and Ribina with the guidance of Dr. Prasanth sir on the topic creating imbalance to the life supporting system of nature. Second paper was developed by Anusree and Priya with the the guidance of Prasanth sir on the topic creating sustainability through climate friendly lifestyle at individual level. We visited places such as Koovempoo park, Bahuroopi theatre fest, and happy man park on first day and RIE, silk factory, Pakshidama, Bonsai garden, visuam museum, Jagmohan palace, sand museum, Anjali ashram and Brindavan garden on second day. Our field trip gave us lot of enjoyable moments and happiness.



OBSERVANCE OF SCIENTIFIC DAYS OF IMPORTANCE

NATIONAL SCIENCE DAY CELEBRATIONS 2018

National Science Day celebrations and national conference 'SES 2018' (Science Education for Sustainability) was celebrated on 27th February 2018 organized by department of physical science with the support of Kerala State Council for Science, Technology and Environment (KSCSTE) and Department of Science and Technology (DST). Pro-manager Rev. Fr. Abraham Parambettu was inaugurated the ceremony and college principal Dr. Stephen T A was preside over the function. The first technical session was lead by Dr. K Pradeep Kumar, Professor, College Of Engineering, Thalassery. He spoke on the topic 'Methodology of Science'. He mainly dealt with the scientific method. And the second technical session was handled by Dr. M. K. Sathesh Kumar, professor, department of physics, Wollega university, Nekemte, Ethiopia. The theme of the session was Indian Science after C V Raman. He presented the development of Science in India before and after independence which was mainly happened through the effort of CV Raman and Jawaharlal Nehru. Afternoon session was started with panel discussion. Dr. Bindu M Asst Prof. School of Pedagogical Sciences, Kannur University was chaired the session. Mrs. Asha P Pathrose, Assistant professor St. Joseph's college Mysore and Dr. Aneeshya were did their presentation on Science Education for Sustainability (SES 2018). Paper presentation competition was also held as two streames. Ms. Madhurima E P, student teacher of P. K. M. College of Education Madampam and Ms. Sangeetha A S, Student teacher St. Joseph's college Mysore were selected as best paper presenters in the humanity stream and science stream respectively.



Paper presentation

As part of National science day celebrations a paper presentation competition was held upon various aspects regarding the topic Science Education for Sustainability. Presentations were conducted in two streams. In humanities stream the session was chaired by Dr. Bindu M.P, Assistant professor School of pedagogical sciences Kannur University. The welcome note for the session was provided by Ms.Roopama CP. Thirteen presentations were conducted in this venue. Madurima E P student teacher dept.of English, P K M College of education Madampam was the best paper presenter in this stream.

In science stream the session was chaired by Dr. M.K Satheesh Kumar (Adjunct Professor, Dept. of Atomic and Molecular Physics, Manipal University) and Dr. Aneeshya P. The welcome note

for the presentation was provided by Ms. Liya Joy. Thirteen presentations were conducted in this venue. The presentations extended from 2.30 pm to 4.30 pm. Sangeetha II year B.Ed., St. Joseph's College of Education, Mysore was the best paper presenter in this stream.

Coordinators

1. Urja Kiran – Liya Joy and Anju Maria
2. Science Day - Jilu Simon and Laya Luka
3. Field Trip -Prya Joy and Sangeetha
4. Science Calendar- Anusree, Minumol, Ribina
5. Science Drama -Ponnisha and Anju
6. Cooperative learning structure workshop- Priya and Sangeetha



**DEPARTMENT OF PHYSICAL SCIENCE
2017-19 BATCH**