



P. K. M. COLLEGE OF EDUCATION

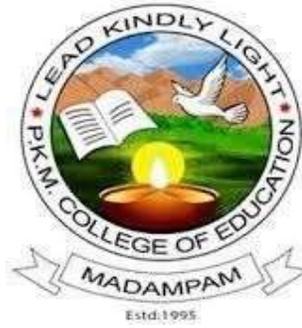
MADAMPAM, KATHAPRAM P.O. KANNUR – 670631
(Govt. Aided Teacher Education Institution affiliated to Kannur University)
Recognized by NCTE and included under UGC 2(f) & 12B category

Re- accredited by NAAC with 'A' Grade (Third cycle) RUSA 2.0 beneficiary, Ranked Third in the KIRF for TEIs

PROGRAMME PORTFOLIO 2024-25

Department of
Natural Science





**P.K.M. COLLEGE OF EDUCATION
MADAMPAM**

DEPARTMENT OF NATURAL SCIENCE

2024-2025

P.K.M. COLLEGE OF EDUCATION, MADAMPAM

DEPARTMENT OF NATURAL SCIENCE

ACTIVITY REPORT 2024-2025

Objectives

- To acquaint with the theoretical back ground in teaching learning process.
- Develop skills in teaching like skill of introducing a lesson, skill of explanation, illustrating with examples, class management, skill of questioning, skill of board writing, skill of using learning aids, teaching methods, class management, organizing different school activities etc.
- Develop research skills and research culture among the student teachers by preparing and publishing field manuals, books, booklets etc.
- Develop competent natural science teachers with subject competency, organization skills, communication skills, ICT Skills, leadership quality, laboratory skills, skills in organizing different curricular and co-curricular activities etc.
- Develop socially committed Natural science teachers with scientific sensitivity, attitude interest and creativity in all works and activities.
- Student teachers get critical thinking, analytical skill, creativity skills, organization skills, leadership quality etc. through different co-curricular activities such as role play, projects, seminars etc.
- The student teacher develops presentation skills and communication skills through different presentations and seminars.

- By doing outdoor activities like project, surveys, planting tree saplings, campus cleaning help the learner to get opportunity to spend with nature and gain naturalistic intelligence.
- To make environmental awareness among the Student Teachers and public. To promote eco-friendly lifestyles.

Strategic plan

- By different sessions the student teachers will get critical thinking, analysis, creativity skills, organizing skills , develops ways of expression, communication skills etc.
- Through the different projects the student teachers get opportunity to develop research skills, leadership skill, co-operation, organization skill, interpersonal skill, collection of data, analysis, interpretation, report writing etc.
- By preparing science related albums the student teachers will get skills in collecting data, analyzing, organizing, presenting and reporting etc.
- Surveys, field trips project works etc. were also helps the student teachers to acquire different skills.
- Seminars and presentations will improve the presentation skills and confidence among the student teachers.
- Both theoretical and practical curricular and co-curricular activities definitely develop different skills and this makes efficient natural science teachers with ethics and positive attitude.

Course learning outcomes

- By theoretical activities, discussions, demonstrations, panel discussions, online teaching etc. student teachers get a sound knowledge on the theoretical back ground of the teaching learning processes, become subject competent.

- By the practical sessions such as microteaching discussion, demonstration and criticism lessons the student teachers develop different skills in teaching learning process, student management , class management, organizing different programmes, science clubs, exhibitions, games, conducting projects, role plays debates and several curricular and co-curricular activities.
- By preparing science related albums the student teachers develop skills in collecting data, writing skills, skills in analysis, organizing skills, editing skills etc.
- By doing action research and preparing articles and presenting papers the student teachers develop research skills.
- By conducting survey, field trips, projects the student teachers get deeper knowledge in different methods and acquire different skills such as leadership skills, interpersonal skills, data analysis, interpretation etc.
- By doing environment related activities the student teachers develop naturalistic consciousness.
- Student teachers develop competency in article preparation, editing, team work etc. through publishing departmental publications.

Activities planned

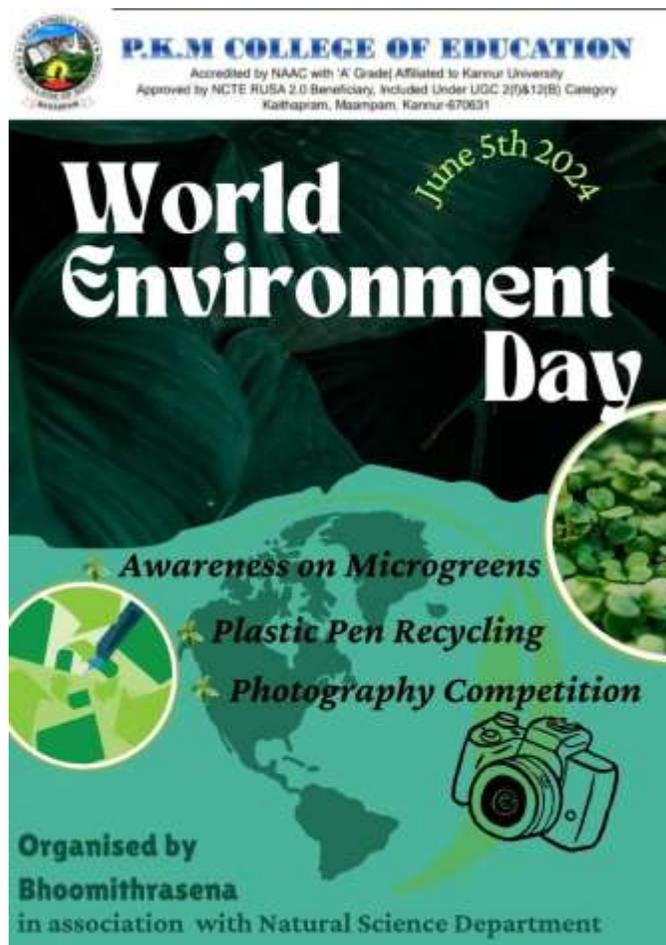
- Science Magazine
- Publications
- Biologists Album
- Project
- Seminar
- Workshop

- Question Bank
- Assignments
- Seminar
- Day observance
- Ecofriendly activities
- Waste management
- Content analysis
- Practical records
- Discussion, demonstration and criticism. Sessions.
- Teaching aids preparation
- Action research
- Resource unit
- School internship.

Many curricular and co-curricular activities were done by the Natural Science department.

The details were given below

WORLD ENVIRONMENT DAY CELEBRATIONS- 2024



5th June 2024, Bhoomithrasena club and Natural science department Celebrated Environment day based on the theme "Land Restoration, Desertification and Drought Resilience." The programme was started at 3.20 pm. Welcome speech delivered by Mrs. Jomol Jose, Assistant Professor in Natural Science. The programme was inaugurated by the college Principal Dr. Jessy NC. Bhoomithrasena student coordinator Sona introduced plastic pen collection box for recycling. Sisira talked about the importance of microgreens and a video was presented about how to cultivate microgreens. Sona delivered the vote of thanks and the programme ended at 4.30 PM.





PHOTOGRAPHY COMPETITION

Also conducted a photography competition on the theme Ecosystem. Many students were participated in the competition and the prizes were distributed to students.



The programme was an effective one as it provided valuable insights and corporation of the all students. This programme helped the students to improve the awareness about environment. This is ended up being a successful one.

WASTE DISPOSAL AND MANAGEMENT AWARENESS PROGRAMME

Department of Natural Science & Bhoomithrasena Club of PKM College of Education was conducted an awareness campaign on waste disposal and management in nearby houses and institutions on October 2nd, 5th & 6th 2024. Prepared a leaflet on waste management practices and distributed this in nearby houses, offices and institutions. Conducted awareness programme to community people in nearby area. Also propagated waste management messages and e- posters regarding pollution through social media. 50 students were participated in this programme. Covered a large community area to propagate the message proper waste management.





P.K.M. COLLEGE OF EDUCATION

MASSAPALAM, 647704 (TAMIL NADU), INDIA. Website: www.pkmcollege.org. Dist. - Tamil Nadu
Education Institution affiliated to Bharathidasan University, Thiruvananthapuram by UCIU and included under 2(F)(ii) &
2(B) category as notified by MHRD with 'A' Grade, AICTE U-9 beneficiary

BHOOMITHRASENA CLUB



വിവിധ തരം മാലിന്യ സംസ്കരണ രീതികൾ



* ജൈവ മാലിന്യം റിംഗ് കമ്പോസ്റ്റ് ബയോഗ്യാസ് പൈപ് കമ്പോസ്റ്റ്



* അജൈവ മാലിന്യം Recycling, ഹരിതകർമ്മ സേനയെ ഏൽപ്പിക്കുക, ശാസ്ത്രീയമായി സംസ്കരിക്കുക

* ഇലക്ട്രോണിക് വേസ്റ്റ് Recycling

മാലിന്യങ്ങൾ വലിച്ചെറിയാതിരിക്കുക

മാലിന്യങ്ങൾ ഉറവിടത്തിൽ തന്നെ സംസ്കരിക്കുക

ചപ്പു ചവറുകൾ കത്തിക്കരുത് വളമായി ഉപയോഗിക്കാം

മാലിന്യം ഉണ്ടാകും, മാലിന്യ സംസ്കരണ ശീലവും ഉണ്ടാകണം !





RELEASING OF BIOLOGISTS ALBUM & EXHIBITION OF DIGITAL COLLAGE

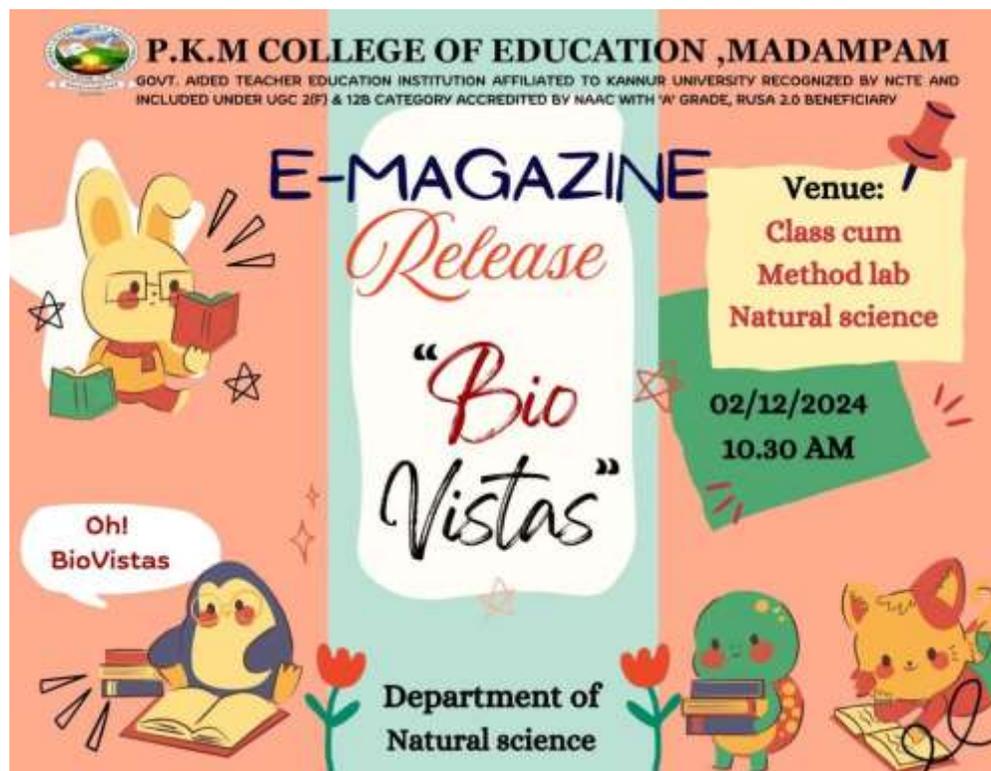


On September 30th Department of Natural Science released Biologists Album & Digital Collage. 8 Natural Science student teachers were prepared 8 Biologists Albums including different biologists from various fields. This helped the student teachers to know and study more about different biologists or scientists. These 8 albums were published by the faculty in charge Mrs. Jomol Jose. Also published and conducted an exhibition of digital collage on Science Teacher. This work helped the student teachers to visualize who will be a science teacher and helped to develop their digital skills.





SCIENCE MAGAZINE – BIO VISTAS RELEASING



Science Magazine named Bio Vistas was release on 2nd December 2024 at Natural Science Class. The gathering was welcomed by Fathimathul Zuhara M, Student Co-ordinator. Later the Student Editor Miss Sonima Krishnan C given a brief description about the magazine. Later the faculty in charge Mrs. Jomol Jose released the e-magazine. This magazine covered a wide range of topics and information such as need and significance of science, neuroscience, science behind the sleep, genetics, homosexuality, current pandemics, climate change and its effects, environmental pollution, landslides etc. So this magazine is a treasure of knowledge and it will definitely make changes in the readers. The function ended by the vote of thanks by the student co-ordinator Miss Presna Prem.





ROLE PLAY



Conducted a role play on constructivism on 13th January 2025. Constructivism is a learning theory that emphasizes the active role of the learner in building understanding and knowledge, rather than passively receiving information. It suggests that individuals construct their own interpretations and meanings based on their experiences and interactions with the world. Natural Science student teachers Fathimathul Zuhara M & Ajina P.P. were played the role

play. They performed well the discussions between a teacher and student about the constructivism.

PROJECT – ALLELOPATHIC EFFECT OF ALTERNANTHERA SESSILIS AND ALTERNANTHERA BRASILIANA

B.Ed. Natural Science students were done a project work as a part of their B. Ed. Curriculum. *Alternanthera* species offers a promising group as it is rich source of several medicinally important compounds like phenols, tannins, etc. In this context, the present study was focused on the chemical analysis of two *Alternanthera* members which are used in the traditional medicine for treating various ailments. The study reinforces the use of these plants as a source of drugs as well as to provide scientific basis to the traditional healers for using the plants in developing further medicinal strategies.

SEMINAR PRESENTATIONS

P.K.M COLLEGE OF EDUCATION MADAMPAM

SEMINAR PRESENTATIONS

MODERATOR

MRS. JOMOL JOSE
HEAD OF THE DEPT. OF NATURAL SCIENCE

CLASS CUM METHOD LAB NATURAL SCIENCE

OCTOBER 22, 23, 24, 28

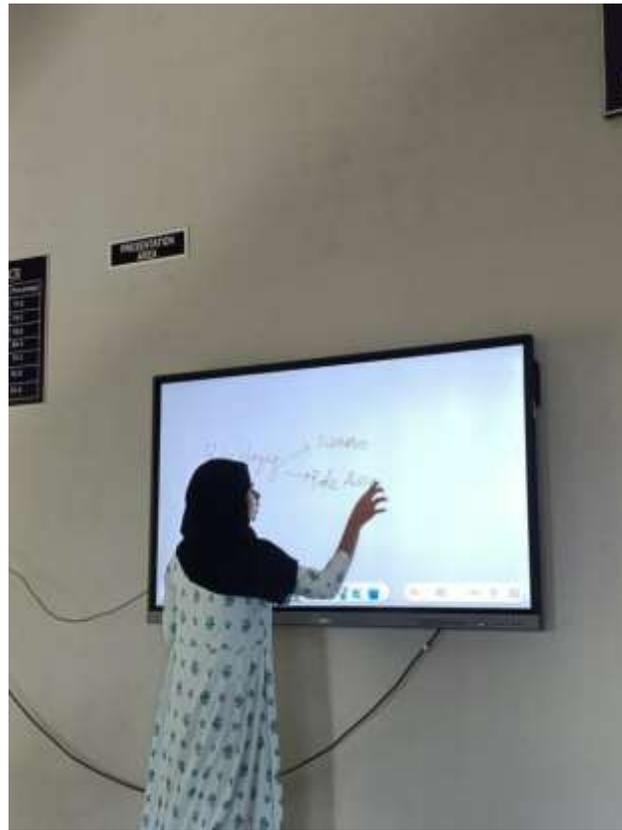
1.30 PM

| Name | Topic |
|----------------------|--|
| AJINA P P | TOPIC: MAXIMS OF TEACHING |
| AKSHAYA C | TOPIC: DISCOVERY APPROACH OF TEACHING |
| ATHIRA N | TOPIC: PROBLEM SOLVING METHOD |
| CHITHIRA P | TOPIC: BRAIN STORMING & QUESTIONING TECHNIQUES |
| FATHIMATHUL ZUHARA M | TOPIC: ROLE PLAYING SEMINAR & DEBATE |
| PREBNA PREM | TOPIC: PROGRAMMES LEARNING |
| RADHU RADHAKRISHNAN | TOPIC: LEARNING RESOURCES |
| SONIMA KRISHNAN C | TOPIC: TEACHING AIDS |

All eight Natural Science student teachers were taken seminars on eight topics in pedagogic subjects. The presentations were done from 22nd October to 28th October 2024. All sessions were highly interactive and informative.









INTERACTIVE SESSIONS BY M.Ed. SCHOLARS

Two M.Ed. Scholars from Kannur University Centre Dharmasala (Natural Science) who were doing their internship at PKM College of Education, Madampam has taken two sessions for the Natural Science B.Ed. Students. They have taken importance of science and technology and qualities of a science teacher. The sessions were highly informative and interesting.



PAPER PRESENTATION

Fathimathul Zuhara M & Sonima Krishnan C. Department of Natural Science were participated in an International Seminar conducted by St. Joseph's College of Education, Mysore and presented a research paper.



FIELD TRIP TO WAYANAD

On 10th february 2025 8 Natural Science B.Ed. students and Natural Science optional teacher were went to wayanad for a field trip. The objective was to explore the biodiversity and ecosystems in wayanad. Started our journey at 7 am from the college. Reached wayanad at 10.30am. First visited Banasura Sagar Dam. Later visited Pazhassi Raja Museum and Tomb. Then visited Nagaravanam at mananthavady with a pool of biodiversity. Student teachers were explored the places and find out different ecosystems and biodiversity. Noted the rich biodiversity in Nagaravanam. Returned at college by 7.30pm. The entire field trip given a good real experience to the student teachers about the Nature and Biodiversity.

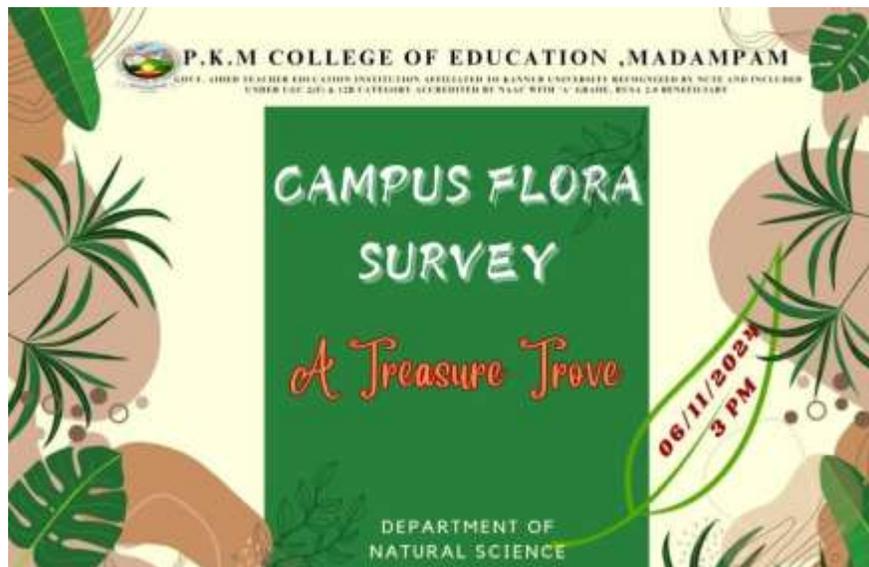






SURVEY – A TREASURE TROVE

Conducted a survey on plant diversity in the campus. 15 students were participated in this programme. Found many plant varieties among herbs, shrubs and trees. Documented the details of each plant with its common name, scientific name, economic or medicinal value and its uses with photograph. Later published this booklet in the name "A Treasure Trove".







VERMI COMPOST AND RING COMPOST

Vermi compost plant was prepared for disposing organic wastes from the agricultural land of the institution. By using inoculum, cow dung, earth worms and organic wastes this vermi compost plant was prepared. We use the compost produced from vermin compost plant for vegetable farming. We also use the organic compost from the ring compost and slurry from the biogas plant for organic farming. So we dispose all bio-degradable waste in the institution itself.



GREEN PROTOCOL

Throughout the year we had used ecofriendly materials in the campus. We used steel glasses, bottles, fiber plates for every programmes conducted in the campus. We use boquet made from eco-friendly materials only Also we reuse the welcome flower made by paper. We use cloth banner for each and every programmes. We use earthen pots for planting small plants. Each programme documented as digital. We had propagated green protocol culture in our campus.

3. GREEN PROTOCOL



GREEN PROTOCOL



ZERO WASTE MOVEMENT

Our institution put forward this theme. All activities are based on this theme. All students and staff members were acted according to this theme and made our campus zero waste campus.

