



Government of Maharashtra



## **RAJARAM COLLEGE, KOLHAPUR**

### **BEST PRACTICE – I**

#### **“LAB ON WHEELS”**

##### **OBJECTIVES OF THE PRACTICE:**

- To develop interest amongst school students about science-technology and its applications.
- To develop a curiosity in them by briefing them about landmark discoveries.
- To update them about the recent developments made in different sciences.

##### **THE CONTEXT:**

Being a premier institution in the region, we decided to reach out to the schools located in rural areas for providing better exposure to emerging avenues and horizons in the arena of science and technology. On occasions like the science day, school going children visit our college campus and departmental laboratories along with their parents or teachers. ‘Lab on wheels’ is a science popularization activity through exhibition of posters, models, working experiments, power point presentations and scientific videos.

## **THE PRACTICE:**

The activities conducted under this practice in the last five years are:

### **2017-18**

Venue- D. C. Narke Vidyaniketan Jr. College and High School, Taluka Karveer,  
Dist Kolhapur

Student participation- 26

Teacher participation- 2

Departments involved-Physics, Electronics, Chemistry, Botany, Zoology,  
Microbiology and Home Science.

### **Nature of Activities-**

- Demonstration on types of waves, gravitational waves, heat waves (Crooke's radiometer).
- Model Exhibition on robotics and remote sensing.
- Presentation of foreign fruits like pear, lichi, dragon, kiwi and others.
- Bird watching at Rankala lake.
- exhibition regarding Food adulteration, crystalgrowths and chemistry of colours.
- Blood group testing.

### **2018-19**

Venue-ShripatraoChougule High school andJunior College, Kotholi-Malwade,  
Panhala Teshil.

Student participation- 50

Teacher participation- 2

Departments involved-Microbiology, Botany, Physics, Chemistry, Mathematics, Geology, Zoology.

### **Nature of Activities-**

- Celebration of Science Fest 2K19.
- Exhibition of Models, Posters, PPT, and Science documentary videos
- Presentation of Skits on science related topics.

### **2019-20**

Venue-Cyrus Poonawala International school, PethVadgaon

Student participation-33

Teacher participation- 3

Departments involved-Mathematics, Zoology, Geology, Physics, Chemistry, and Psychology.

This activity was carried out jointly with Space development Nexus, private agency for space science popularization.

- Project presentation on MARS colonization.
- Fibanacco series and application of differentiation and Integration in the physical phenomena.
- Rock formation process, posters on different strata of Earth's atmosphere
- Survey and analysis on stress management.

### **EVIDENCE OF SUCCESS:**

Schoolchildren were inspired by & quot; Lab on wheels. & quot; It also helped pupils learn about contemporary scientific advances. All science topics were under one roof, so rural students were glad to learn them. New science and education trends were also introduced to them. Thus, they learned how science improves lives and society. Our students also profited from this practice. They

were trained to present their projects independently. Science spurred students to study and pursue careers in it. Science was efficiently communicated to high school and junior college students. The intended kids were interested in science subjects.

Although, we could not continue this practice due to Covid -19 in the years 2020-21 and 2021-22, we

held many alternative activities on our campus under the title “Science Popularization”.

**PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED:**

- A customized vehicle for mobile laboratory is necessary
- Inadequacy of funds



Government of Maharashtra



## **RAJARAM COLLEGE, KOLHAPUR**

### **7.2 Best Practices**

#### **Best Practice- I**

# **“Lab on Wheels”**

## 1. Title of the Practice:

# “Lab on Wheels”



## 2. Objectives of the Practice:

- ✓ To develop interest amongst school students towards science and technology.
- ✓ To develop a curiosity in them by briefing them about landmark discoveries.
- ✓ To update them about the recent developments made in different sciences.
- ✓ To make them aware how science helps in betterment of life in society.
- ✓ To educate them about the new branches of science and changing trends in education.
- ✓ To instill in them to choose basic sciences as career option.

Rajaram college had a tradition of keeping the laboratory open for school students in all science subjects. But it was noticed that only few students from the city school could take benefit of it. So, the science committee decided to take its laboratory out of the campus and reach different schools from the remote areas to give better access and popularize basic science amongst different highschool level classes of the school.

The first such attempt was done in 2017 by reaching Radhabai Shinde English, which was in the immediate vicinity of the college. The experience was delightful for our college students and the excellent feedback from the school teachers, parents and other local citizens encouraged us to reach the schools in the remote areas to make students in the villages to get familiarised with current trends in learning science.

## 3. The Context

Lab on wheels is a science popularization activity. It refers to the Mobile Laboratory. The main aim of this activity is to reach the schools in the remote areas. This is done by organizing

science exhibition at schools that send invitation to us. The exhibitions are in the form of posters, models, working experiments, power point presentations and even scientific videos. The activity is conducted by the college students for the high school students.

#### **4. The Practice:**

##### **Evidence of Success:**

**Academic year 2017-18**

**Number of student's participation: 26**

**Teacher participation:2**

This year lab on wheels visited D. C. NarkeVidyaniketan Jr. College & High School, Near Kuditre factory, Taluka Karveer, Dist Kolhapur, for science popularization. The school is 15 km away from Rajaram College Campus. Physics, Electronics, Chemistry, Botany, Zoology, Microbiology and Home Science department participated in this tour.

Physics department demonstrations were done on the theme of waves. Demonstration on types of waves, gravitational waves, heat waves (Crooke's radiometer), Light Mill was done. This helped the students to understand the concept of waves.

Electronics department exhibited models on robotics and remote sensing. There projects were apple of everyone's eye. The students demonstrated working models of line follower robot, self balancing robot, obstacle avoiding robot, and blue tooth controlled car and obstacle dectection and ranging using ultrasound waves.

Botany department explained the students about significance of foreign fruits like pear, lichi, dragon, kiwi and others. Their location, habitat, growth rate and its nutrition value was also told to the students.



Zoology students guided the high school boys and girls about the birds at Rankala lake. Students were surprised to know the wide variety of species of birds, out of which few were local and others were migratory. The beautiful pictures in the poster covered wide variety of species like Northern shoveller, Marsh harrier, Marsh sandpiper, Northern shoveller, Marsh harrier, Marsh sandpiper and local species of gray heron, Indian pond blue heron, black headed ibis, purple swamphen, red munia and tricolored munia.

The **scientific reason behind migration of birds** is that they cannot change their temperature along with outside temperature and with the change in outside temperature, their body temperature fluctuate. Hence, to protect themselves from such harsh summer or winter conditions, they go for **migration**.



The chemistry department exhibition included various chemical reactions explanation, Food adulteration demos, crystal growths and chemistry of colours. It was very nicely explained by our teacher to the curious students.

Microbiology came up with blood group testing kits. The villagers rushed to the place to get blood group tested. They registered their acknowledge to our budding pathologists. Students also showed few microbial cultures to them. The purpose of culturing and its process was also explained. Highschool could follow the properties of bacteria, creation of antigens for laboratory use and testing of antiobiotic sensitivity.

Home Science came us with fermented foods. The process of fermentation, its nutrition value was very well explained by PG students.



**Glimpse of the activity:**







**Outcome of the activity:** Students, teachers and nearby village school teachers were benefitted. The residential school students were highly impressed.

*Mr. H. U. Patankar*

**Co-ordinator  
Science Committee**

## Academic year 2018-19:

**Number of student's participation: 50**

**Teacher participation:2**

Lab on wheels is an extension activity for popularizing basic sciences. It is aimed to reach the remote areas and/ or rural areas to make those students aware about the recent developments. The main intention is to create interest amongst school students to learn science. To impress upon them that science can be learnt with fun and is needed in day to day life . The rural areas are deprived of essential infrastructure and are also are not well exposed to important concepts in different sciences. It ends in rote type of learning and creates disinterest amongst pupils. Hence, popularization becomes essential.

Secondly, our college students are also benefitted by this activity. It helps them to communicate science effectively. Important is they learn how to share their gained scientific knowledge with their juniors. It creates a scientific dialogue amongst students of different branches. Our students also realize how to apply the learnt concepts and make it applicable in daily life. The science must even reach common masses to eradicate the false beliefs and superstition too, which is high prone in rural areas.

This year 50 students from various branches of science participated in this activity on 25/1/19 from 11.00am to 6.00 pm. This year Microbiology took a lead role in arranging this activity. They were accompanied by Dr. K. K. Patankar and Dr. Y. C. Attar as resource persons. The lab on wheels reached ShripatRao Chougule High school and Junior College, Kotholi-Malwade, PanhalaTeshil. It was celebrated as Science Fest 2K19 at the senior college belonging to the same institute. There was a variety in science popularization. Our college students from Physics, Chemistry, Mathematics, Geology, Zoology, Botany, Environmental Sciences, Microbiology and others came out with models, posters, working models and even basic experiments, Skits, PPT, Science documentary videos. The topics shared were of current issues like Energy Conservation, Developments in atomic structures, Popular Fibanacco Series and magic numbers, Brain and Kidney models and their interrelations, Food Adulteration, Poster on Reptiles, Popular fruits rarely seen in rural places like Kiwi, Fashion fruit, Litchi etc and their medicinal significance, health and hygiene, Impact of Microbial world in daily life and many other applications. Microbiology Students performed a skit on scientific awareness of health and hygiene. Microbiology and Maths students narrated the inspiring stories of Microbiologist Louis Pasteur and Mathematician Ramanujam.

**Outcome of the activity:** The scientific ideas were effectively conveyed to the high school and junior college students. The rural students showed interest in learning the various concepts of science. They students were engrossed in clarifying their doubts. The junior college teachers also took keen interest and were repeatedly giving us the good remarks. All basic sciences were

assembled under one roof. High school teachers realized the importance of this and are expecting a special training program from us.

**Glimpse of this Activity:**





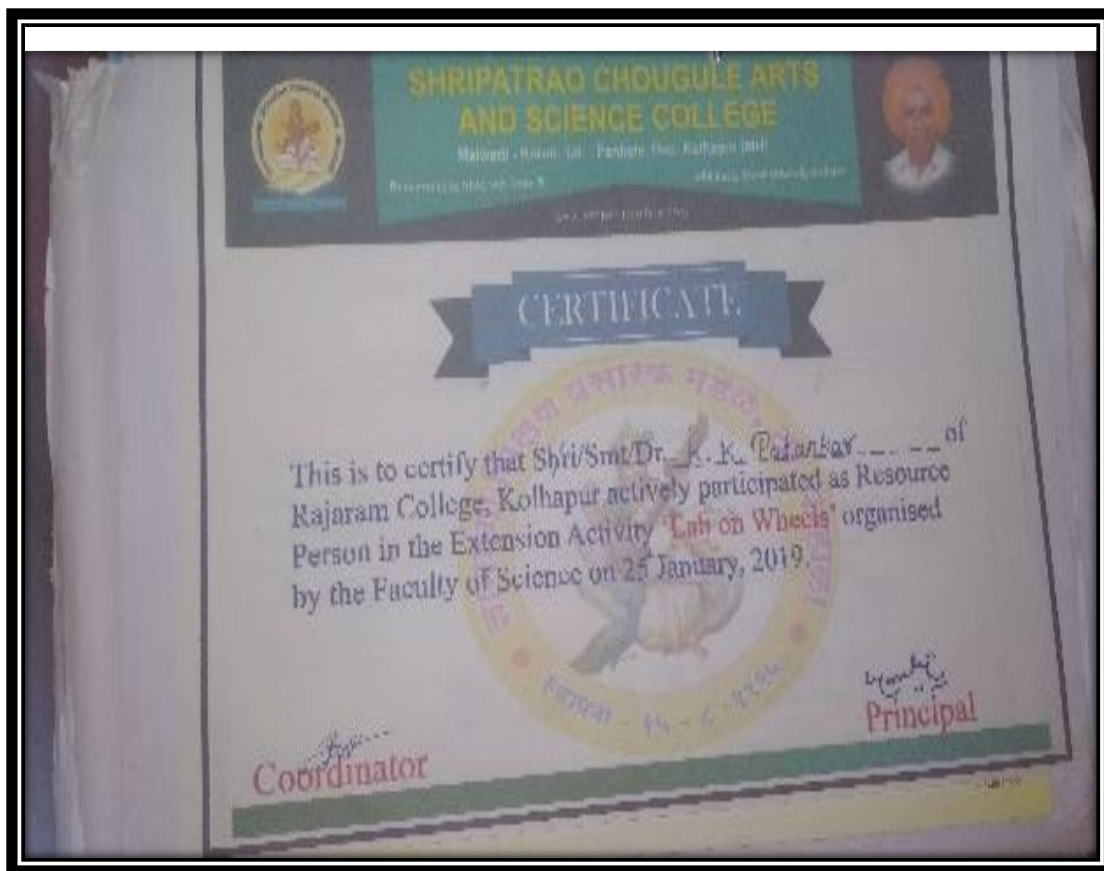
## 'Lab On Wheels'

an Extension Activity for  
Popularizing Basic Sciences.  
Its aim is to reach the Students  
of remote and rural areas to make  
them aware about the recent  
developments in Sciences



श्रीपतराव शिंदे हायस्कूल व ज्यु. कॉलेज, कोतोली-मालवडे येथे लॅब ऑन व्हील्स उपक्रमाचे उद्घाटनप्रसंगी मान्यवर.





**Outcome of the activity:** Students were trained to present their projects. They could learn how to effectively present their work. This also helped them in interacting with faculty from other institute and also they were surprised to know how curious the rural school children to know above the advancement in science and technology.

*Mr. N. K. Patankar*

**Coordinator  
Science Committee**



## **Academic year 2019-20**

**No. of students participated: 33,**

**No of students from SDNx (Knowledge Partner ): 7**

**Teachers from our college: 2 and From SDNx :1**

This year our lab on wheels reached Cyrus Poonawalla International school on 1<sup>st</sup> March 2020 as a part of National Science Day celebration at their School. This activity was carried out jointly with Space development Nexus, private agency for space science popularization.

Departments participated in the event were Physics, Chemistry, Mathematics, Geology, Zoology and Psychology.

Students presented spectacular projects on MARS colonization, Wireless Medi Robot, Quadacopter, MARS cloud Generator, Model Rocketry Project from Space Science.

Michelson interferometry and Understanding LIGO, Moment of Inertia experiment, Mould effect, Normal shift, coupled oscillations, optical fiber communication, thermodynamical application.

Mathematics and Statistics department came forward with Fibanacco series and application of differentiation and Integration in the physical phenomena. Explanation of tools used by Statistician for data analysis was demonstrated by statistics final year students.

Zoology department was a center of attraction for all local public; the entire cycle of the production of raw silk by means of rearing caterpillars (larvae), particularly those of the domesticated silkworm was very nicely explained by the students.


Geology department too contributed and explained the rock formation process, posters on different strata of Earth's atmosphere and also displayed the models of seven crystal system.

Psychology department made a survey and analysis on stress management.








**RAJAWADE COLLEGE, KOLHAPUR**  
 Vidyanagar, Kolhapur-423011 (India)  
 Phone: 02312-252441 Fax: 02312-252442

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Date: \_\_\_\_\_ Page: \_\_\_\_\_


To: The Principal  
 Rajawade International School  
 Vidyanagar, Kolhapur.

Re: Request to arrange Release Programme Program "Let's go, World" for High school and Junior college students year 2020.

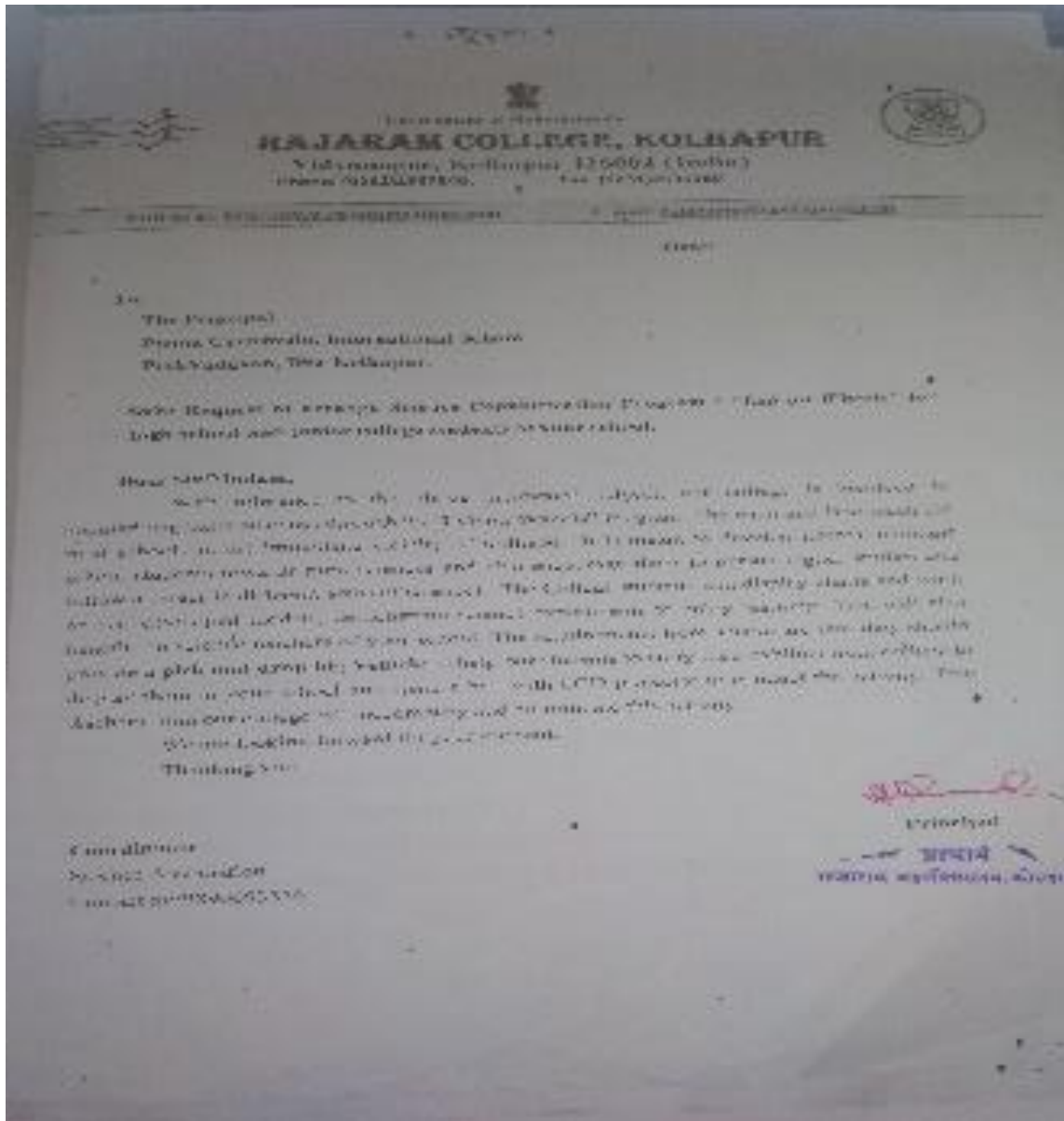
**Dear Sir/Madam,**

We are excited to be able to contribute to the success of your organization and the success of your students. The main objective of this program is to provide the students with the opportunity to learn and grow in a safe and secure environment. We are looking forward to your response and to the success of your students.

We are looking forward to your response and to the success of your students.

  
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 \_\_\_\_\_  
 \_\_\_\_\_

Fundation  
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**Outcome of the activity:** The school has maintained a rapport with the coordinator and shares their innovative ideas and also request inputs from our college to enhance their effective teaching and conceptual learning of Science and technology.

*M. H. Patil*  
**Coordinator  
Science Committee**

## **5. Problems Encountered and Resources Required:**

- Hiring a vehicle for mobile laboratory.
- A permanent solution to laboratory settings on wheels is genuine need.
- Continuous involvement of maximum faculty is necessary.
- The continued involvement of all students is always a challenge.
- School visits in first term will be beneficial.
- Government funding is needed to conduct the activity on a large scale.

**Academic year 2020-21**

## **Science Popularization Evidences**

[https://youtu.be/vWg966B\\_WMI](https://youtu.be/vWg966B_WMI)

<https://youtu.be/S-Lg8YAAgbM>

<https://youtu.be/BVQPJCmtgmQ>

<https://youtu.be/bKTIAPLBA6Y>

<https://youtu.be/RIBzAg72Z2o>

<https://youtu.be/5wdsCGngBT4>

<https://www.youtube.com/watch?v=ieQGdmhLOCg&t=8s>


<https://youtu.be/ctbSZF2CBtg>

Academic year 2021-22


## Practice I: Science Popularisation Activity

Name of the activity: “Hands on Training of Scientific Toy Making and Sky Watching Programme”

Quality Education...  
For Personality...  
For Nationality...



Government of Maharashtra's



**RAJARAM COLLEGE, KOLHAPUR**

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**Science Association and IQAC Cell of  
Rajaram College, Kolhapur**

**Organizes**

One Day Workshop on

**“Hands on Training of Scientific Toy Making and Sky  
Watching Programme”**

**Resource Persons:**

Ms. Shivani Pethe-Kane (Scientist; IUCAA, Pune)  
Mr. Atharv Pathak (Scientist; IUCAA, Pune)  
Dr. Aviraj Jatrakkar (Asst. prof. & Alumnus of RCK)

**President of the Function:**  
**Hon. Prin. Dr. S.B. Maharaj-Patil**

Venue: Shahu Auditorium, Room No. 1, Rajaram College, Kolhapur

Date: 11<sup>th</sup> Dec., 2021 Time: 3:00 pm

Kindly confirm your participation through registration. For registration use the following link:  
<https://forms.gle/CyFWLTTADIwt3vWK6>

**Dr. K.K. Patankar**  
Convener

**Dr. S.S. Taware**  
Organizing Secretary

**Dr. S. B. Maharaj-Patil**  
Principal, Rajaram College, Kolhapur

#Financially Supported by IAPT, Maharashtra, RC-08

Science Association and IQAC cell

Rajaram College, Kolhapur

Organizes One Day Workshop on

“Hands on Training of Scientific Toy Making and Sky Watching Programme”

on 11<sup>th</sup> Dec., 2021

Venue: Shahu Auditorium, Main Building, Room No. 1, Rajaram College Kolhapur

Schedule

Session	Details	Time
Session 1	Inaugural Session: Introductory Speech: <b>Dr. K.K. Patankar</b> Presidential Talk: <b>Hon. Prin. Dr. S.B. Maharaj-Patil</b>	3:00 to 3:10
Session 2	Speaker 1: <b>Ms. Shivani Pethe-Kane</b> Subject: “Hands on Training: Scientific Toy Making”	3:15 pm to 5:15 pm
Vote of Thanks		
Session 3	Speaker 2: <b>Mr. Atharv Pathak</b> Topic: “Basics of Astronomy”	5:30 pm to 6:30 pm
Break for next session preparation		
Session 4	Resource person: <b>Mr. Atharv Pathak</b> & <b>Dr. Aviraj Jatrakar</b>	7:30 to 9:00 pm
Concluding Remarks of Programme		

Convener  
Dr. K.K. Patankar

Organizing Secretary  
Dr. S.S. Taware

Principal,  
Rajaram College, Kolhapur  
Hon. Dr. S.B. Maharaj-Patil





Government of Maharashtra's



## **RAJARAM COLLEGE, KOLHAPUR**

Shivaji University Road, Vidya nagar, Kolhapur, Maharashtra 416004

### **CERTIFICATE**

**This is to certify that, Dr./Mr./Ms. {{Full Name}} of {{Other Identifier}}** has successfully Participated in One Day Workshop on “**Hands on Training of Scientific Toy Making and Sky Watching Programme**” on 11<sup>th</sup> Dec., 2021, organised by Science Association and IQAC cell, Rajaram College, Kolhapur in collaboration with IUCAA, Pune.

**Dr. K.K. Patankar**  
Convener

**Dr. S.S. Taware**  
Organizing Secretary

**Dr. S. B. Maharaj-Patil**  
Principal, Rajaram College, Kolhapur

# INDIAN ASSOCIATION OF PHYSICS TEACHERS MAHARASHTRA REGIONAL COUNCIL- RC-08

## ACTIVITY REPORT

The report must contain the following:

- 1. Name of the activity:** “Hands on Training of Scientific Toy Making and Sky Watching Programme”
- 2. Date / Duration:** 11<sup>th</sup> Dec., 2021 / 3:00 to 9:00 pm
- 3. Venue of the activity:** Shahu Auditorium, Room No. 1, Rajaram College, Kolhapur
- 4. Organizing institute along with collaborations, If any:** Rajaram College, Kolhapur with IUCAA, Pune
- 5. Sponsors, if any (IAPT, RC-08 or any other funding agency):** *IAPT, Maharashtra, RC-08*

**6. Summary of the activity:**

Science and technology are required for progress of the country. Conceptual learning of science can be made easier through experiments. Experiments can be enjoyed by the Lerner if they are presented in the form of toys. Hence with this idea in our mind, Rajaram College has proposed to organize “Hands on Training of Scientific Toy Making and Sky Watching Programme”.

The objectives are as follows:

- To make physics learning easier to students
- To helps students, to devise their own toys
- To enhance their creativity
- To develop scientific attitude and improve their observation skills
- To explore the sky and enjoy the beauty of universe.
- 

- 7. Name of the Coordinator / convener /organizer:**Convener – Dr. K.K. Patankar  
Asst. Prof. Physics,

**Organizing Secretary** – Dr. S.S. Taware

Asst. Prof. Zoology

**Address:** Rajaram College, Vidynagar, Kolhapur- 416004

**Email:** [ketakiketan@gmail.com](mailto:ketakiketan@gmail.com)

**Mob. Number:** 9890693356



**Rajaram College, Kolhapur**  
**Science Association**  
**Organized E-poster Competition on “Science in Everyday life”**  
**as “National Science Day – 2022” Celebration**

**REPORT**

Science Association, Rajaram College Kolhapur, organized **E-poster Competition on “Science in Everyday life” as “National Science Day – 2022” Celebration** on 28<sup>th</sup> February, 2022 at 11:00 am on Online platform (Google meet). For this programme, 21 E-Posters were received from B.Sc. Part I, II and III students.

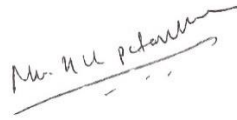
This programme was inaugurated in presence of Dr. Ketaki Patankar (Co-ordinator, Science Association), Dr. Shital Taware (Member & Organizer), Hon. Guest and Examiner, Dr. Vidya Deshmukh (Professor in Physics, R. P. College, Osmanabad), Dr. Yogesh Gaikwad (Assistant Professor in Zoology, T.C. College of Art, Commerce and Science, Baramati) and faculty and students of Rajaram College Kolhapur. Dr. Ketaki Patankar madam introduced the theme of the E-poster competition and highlighted urge and purpose of national science day celebration in academics. During Inaugural Programme, Dr. Vidya Deshmukh delivered brief lecture on National Science Day theme of 2022 - “Integrated Approach in Science & Technology for Sustainable Future.

E-poster evaluation began at 11:15 am under the guidance of our external evaluator & guest and continued till 1:45 pm. During this session out of 21 posters, 11 posters were presented by students on various topics like; Science in everyday life, Role of micro-organism in street food, day-to-day use of periodic elements, microbiology & Health, etc. during this complete session all students were interacted with experts with some interesting questions concerned with prepared posters.

Dr. Yogesh Gaikwad concluded this evaluation session with positive remarks for student’s creativity and enthusiastic approach towards science and its applications. He also added some valuable suggestion regarding further improvement and development of specific target oriented scientific approach in students. After these concluding remarks, Dr. S.S. Taware

proposed vote of thanks followed by feedback form (Google form link) was given to all participants.

In this E-Poster competition, based on evaluators report, Mr. Alnakar Kumarmangalam Kamble of B.Sc. III Physics secured first place with 16 out of 20 points, Ms. Pallavi Chandrakant Wakarekar of B.Sc. II secured second place with 15.5 out of 20 points, while Ms. Pradnya Prashant Shinde of B.Sc. I secured third place with 15 out of 20 points.



**Co-ordinator,  
Science Association,  
Rajaram College, Kolhapur**

**Rajaram College Kolhapur**  
**Science Association**  
 Celebrating "National Science Day - 2022"  
 E-Poster Competition on theme "Science in Everyday Life"

Sr. No.	name of Student	E-mail id	Class	Roll No.	Subject	Poster Title/Topic
1	Aditya Ashok Pawar	<a href="mailto:adityapowar482@gmail.com">adityapowar482@gmail.com</a>	B.Sc. I	31	Chemistry	Fermentation in Everyday Life
2	Ayushi Santoshraj Shinde	<a href="mailto:ayushishinde693@gmail.com">ayushishinde693@gmail.com</a>	B.Sc. I	303	Microbiology	Science in Everyday Life
3	Dhanashri Dashrath Chavan	<a href="mailto:dhanashreechavan5404@gmail.com">dhanashreechavan5404@gmail.com</a>	B.Sc. I	260		Science in Every Day Life
4	Pritam Manohar Patil	<a href="mailto:mysticumbreon021@gmail.com">mysticumbreon021@gmail.com</a>	B.Sc. I	166	Chemistry	Day-to-day use of some periodic elements
5	Ritesh Rajendra Patil	<a href="mailto:riteshpatilrp1310@gmail.com">riteshpatilrp1310@gmail.com</a>	B.Sc. I	161	Microbiology	Fermentation in Everyday Life
6	Sakshi Pankaj Ghodasara	<a href="mailto:ghodasarasakshi21@gmail.com">ghodasarasakshi21@gmail.com</a>	B.Sc. I	245	Microbiology	Microbiology in Everyday Life
7	Siddhesh Shivaji Gurav	<a href="mailto:siddheshg931@gmail.com">siddheshg931@gmail.com</a>	B.Sc. I	132		Science in Everyday Life
8	Swati Sanjay Chikodi	<a href="mailto:chikodiswati@gmail.com">chikodiswati@gmail.com</a>	B.Sc. I	7	Physics	Uses Of Laws Of Physics In Everyday Life
9	sanika Mohan Jatrata	<a href="mailto:sanikajatrata@gmail.com">sanikajatrata@gmail.com</a>	B.Sc. I	285		
10	Radhika Vijay Nagtile	<a href="mailto:radhikashinde2530@gmail.com">radhikashinde2530@gmail.com</a>	B.Sc. I	270		Science in Everyday Life
11	Riteshraj Bharat Shetage	<a href="mailto:shetageriteshraj@gmail.com">shetageriteshraj@gmail.com</a>	B.Sc. I	35		Science in Everyday Life
12	Pradnya Prashant Shinde	<a href="mailto:pradnya270503@gmail.com">pradnya270503@gmail.com</a>	B.Sc. I	258		Science in Everyday Life
13	Nikita Nitin Bhalerao	<a href="mailto:nikibhalerao2003@gmail.com">nikibhalerao2003@gmail.com</a>	B.Sc. I	259		Science in Everyday Life
14	Laxmi ShankarappaMelkeri	<a href="mailto:laxmimelkeri1774@gmail.com">laxmimelkeri1774@gmail.com</a>	B.Sc. II	2021SS024		Science in Everyday Life
15	Pallavi Chandrakant Wakarekar	<a href="mailto:pallaviwakarekar23@gmail.com">pallaviwakarekar23@gmail.com</a>	B.Sc. II	270	In. Microbiology	Microbiology and Health
16	Rutuja Vivek Patil	<a href="mailto:patilrutu1804@gmail.com">patilrutu1804@gmail.com</a>	B.Sc. II	265	In. Microbiology	Microbiology in Agriculture
17	Maithili Uday Mane	<a href="mailto:maithilimane63@gmail.com">maithilimane63@gmail.com</a>	B.Sc. II	263	In. Microbiology	Role of Micro-organism in Street Food
18	Kasturi Kiran Donkar	<a href="mailto:donkarkasturi@gmail.com">donkarkasturi@gmail.com</a>	B.Sc. II	345	In. Microbiology	Micro-organism in Kitchen
19	Alankar Kumarmangalam Kamble	<a href="mailto:alankar.kamble15@gmail.com">alankar.kamble15@gmail.com</a>	B.Sc. III	2021TS010	Physics	Science in Everyday Life
20	Swati Balawant Dawar	<a href="mailto:swatidawar6361@gmail.com">swatidawar6361@gmail.com</a>	B.Sc. III	104	Chemistry	Green Chemistry
21	Arti Dinkar Zirmite	<a href="mailto:artizirmite27@gmail.com">artizirmite27@gmail.com</a>	B.Sc. III	27	Physics	Science in Everyday Life

**Celebrating "National Science Day - 2022"**  
**E-Poster Competition on theme "Science in Everyday Life"**

**RESULT**

Sr. No.	Name of Participant	Class	Roll No.	Subject	Topic	Marks out of 20
1	Alankar Kumarmangal amKamble	B.Sc.III	2021TS010	Physics	Science in Everyday Life	16
2	Pallavi Chandrak antWakarekar	B.Sc.II	270	In. Microbiology	Microbiology and Health	15.5
3	Pradnya Prashant Shinde	B.Sc.I	258		Science in Everyday Life	15
4	Rutuja Vivek Patil	B.Sc.II	265	In. Microbiology	Microbiology in Agriculture	14.5
5	Laxmi Shankarappa Melkeri	B.Sc.II	2021SS024		Science in Everyday Life	14.5
6	Arti Dinkar Zirmite	B.Sc.III	27	Physics	Science in Everyday Life	14
7	Maithili Uday Mane	B.Sc.II	263	In. Microbiology	Role of Micro-organism in Street Food	13
8	Swati Sanjay Chikodi	B.Sc.I	7	Physics	Uses Of Laws of Physics In Everyday Life	13
9	Kasturi Kiran Donkar	B.Sc.II	345	In. Microbiology	Micro-organism in Kitchen	12.5
10	Pritam Manohar Patil	B.Sc.I	166	Chemistry	Day-to-day use of some periodic elements	12.5
11	Ritesh Rajendra Patil	B.Sc.I	161	Microbiology	Fermentation in Everyday Life	10.5
12	Swati Balawant Dawar	B.Sc.III	104	Chemistry	Green Chemistry	0
13	Nikita Nitin Bhalerao	B.Sc.I	259		Science in Everyday Life	0
14	Riteshraj Bharat Shetage	B.Sc.I	35		Science in Everyday Life	0
15	Radhika Vijay Nagtile	B.Sc.I	270		Science in Everyday Life	0
16	sanika Mohan Jistrate	B.Sc.I	285		Science in Everyday Life	0
17	Siddhesh Shivaji Gurav	B.Sc.I	132		Science in Everyday Life	0
18	Sakshi Pankaj Ghodasara	B.Sc.I	245	Microbiology	Microbiology in Everyday Life	0
19	Dhanashri Dashrath Chavan	B.Sc.I	260		Science in Everyday Life	0
20	Ayushi Santoshraj Shinde	B.Sc.I	303	Microbiology	Science in Everyday Life	0
21	Aditya Ashok Pawar	B.Sc.I	31	Chemistry	Fermentation in Everyday Life	0

NAME:-Pallavi Chandrakant Wakarekar,

CLASS:-S.Y(BS,c) Industrial microbiology, Rajaram college, Kolhapur.

ROLL NO:-270

E MAIL ID:-pallaviwakarekar23@gmail.com/

## Microbiology and health



Microorganisms are present every where in which some are useful and some are harmful. We should prevent the harmful organisms that infect us which cause bad effects on our health, we can avoid these with help of maintenance of good sanitary practices.

Microbiology plays an ideal role in this, with help of Microbiology we can differentiate the good and bad microbes in environment.

The precautionary measures to be taken:-



Cover the mouth while sneezing and coughing



Wash the vegetables before use.



Wash your hands properly with hand wash.

The normal micro flora of our body prevent colonization by pathogens by competing for attachment & nutrients.

Good microbes contribute to digestion, produce vitamin K, promote development of immune system and detoxify harmful chemicals.

### PROBIOTICS:-

1. Probiotics help balance the friendly bacteria in your digestive system.
  2. Probiotics supplement improve some mental health.
- the commercial example of probiotics intake is YAKULT.  
And in even in home the source of probiotics is curd, butter milk etc.




Microbiology carries out identification, detection and diagnosis of microorganisms which helps to create awareness about diseases

**Nowadays in this pandemic stay safe from novel corona virus** □


- Wear mask. Use sanitizer, eat healthy and nutritious food, drink microbes free water.
- Maintain social distance.






# SCIENCE IN EVERYDAY LIFE


Name – Pradnya Prashant Shinde.  
Class – B.sc1 Roll No. 258 pradnya270503@gmail.com




Tea/Coffee keep us awake. Adenosine present in coffee. It is associated with lower risk and stroke. Tea and coffee boost your immune system.



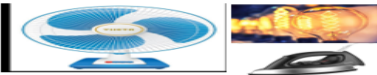
Smartphones have become widely used source of information.




Science is at bottom of emotion. Affective science is study of emotion.




Photosynthesis is biological process that convert sunlight into chemical energy. During this plant transform water, sunlight, CO<sub>2</sub> into oxygen and simple sugars.



Electricity is phenomenon associated with stationary or moving electric charge. We use electricity for lighting, heating, machinery, etc.



Mask can help protect against respiratory infection that are spread through droplet route.



In fermented food role of microbes are essential. This food improve availability of nutrients, easy to digest.

**Conclusion – Science is an important part of our daily life. We see science, touch science, feel science.....**

SCIENCE ARE INFINITE.....!!

Estd. in 1880



Government of Maharashtra's

**RAJARAM COLLEGE, KOLHAPUR**

**Science Association  
Celebrating**

NAAC 'A' Grade



**“National Science Day - 2022”**

**CERTIFICATE**

This is to certify that, **Mr. Alankar Kumarmangalam Kamble** of **B.Sc. III Physics** has actively Participated and secured **first Rank** in the E-poster Competition on theme of **“Science in Everyday Life”** on occasion of **“National Science Day - 2022”** celebration on 28<sup>th</sup> February, 2022, organised by Science Association, Rajaram College, Kolhapur.

**Dr. S.S. Taware**  
*Organizing Secretary*

**Dr. K.K. Patankar**  
*Co-ordinator  
Science Association*

**Dr. Y. C. Attar**  
*IQAC Co-ordinator*

**Dr. S. B. Maharaj-Patil**  
*Principal, Rajaram College, Kolhapur*

Estd. in 1880



Government of Maharashtra's

**RAJARAM COLLEGE, KOLHAPUR**

**Science Association**

**Celebrating**

NAAC 'A' Grade



**“National Science Day - 2022”**

**CERTIFICATE**

This is to certify that, **Ms. Pallavi Chandrakant Wakarekar** of **B.Sc. II Industrial Microbiology** has actively Participated and secured **second Rank** in the E-poster Competition on theme of **“Science in Everyday Life”** on occasion of **“National Science Day - 2022”** celebration on 28<sup>th</sup> February, 2022, organised by Science Association, Rajaram College, Kolhapur.

**Dr. S.S. Taware**  
Organizing Secretary

**Dr. K.K. Patankar**  
Co-ordinator  
Science Association

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Quality Education...  
For Personality...  
For Nationality...

**"National Science Day - 2022"**

**CERTIFICATE**

This is to certify that, **Ms. Pradnya Prashant Shinde** of **B.Sc. I** has actively Participated and secured **third Rank** in the E-poster Competition on theme of "**Science in Everyday Life**" on occasion of "**National Science Day - 2022**" celebration on 28<sup>th</sup> February, 2022, organised by Science Association, Rajaram College, Kolhapur.

**Dr. S.S. Taware**  
Organizing Secretary

**Dr. K.K. Patankar**  
Co-ordinator  
Science Association

**Dr. Y. C. Attar**  
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**Dr. S. B. Maharaj-Patil**  
Principal, Rajaram College, Kolhapur

Estd. in 1880



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NAAC 'A' Grade



Quality Education...  
For Personality...  
For Nationality...

**"National Science Day - 2022"**

**CERTIFICATE**

This is to certify that, **Ms. Rutuja Vivek Patil** of **B.Sc. II Industrial Microbiology** has actively Participated and secured **Consolation Prize** in the E-poster Competition on theme of "**Science in Everyday Life**" on occasion of "**National Science Day - 2022**" celebration on 28<sup>th</sup> February, 2022, organised by Science Association, Rajaram College, Kolhapur.

**Dr. S.S. Taware**  
Organizing Secretary

**Dr. K.K. Patankar**  
Co-ordinator  
Science Association

**Dr. Y. C. Attar**  
IQAC Co-ordinator

**Dr. S. B. Maharaj-Patil**  
Principal, Rajaram College, Kolhapur

## Student Attendance:

Attendance for: Class List on 2022-02-28

Names2022-02-28 10:42Arrival time  
digvijay ambitkar?11:16 (0min) [11:16]  
nikita bhalariao?10:53 (15min) [11:08]11:08 (2min) [11:11]11:17 (0min) [11:17]11:20 (0min) [11:20]  
Babasaheb Bhosale?11:17 (0min) [11:17]  
anita bodake?11:11 (1min) [11:11]  
swati chikodi?10:51 (18min) [11:32]11:32 (0min) [11:32]11:34 (23min) [11:56]12:00 (0min) [12:00]12:16 (0min) [12:16]12:20 (0min) [12:20]12:32 (0min) [12:32]12:42 (0min) [12:42]  
kasturi donkar?10:50 (81min) [13:43]  
yogesh gaikwad?10:59 (173min) [13:56]  
sakshi ghodasara?10:58 (11min) [11:11]  
utkarsha jadhav?11:16 (0min) [11:16]  
285-sanika jatrate?11:02 (7min) [11:11]  
alankar kamble?10:53 (2min) [10:54]10:59 (55min) [13:35]13:35 (3min) [13:38]13:38 (1min) [13:39]  
ketaki ketan?10:49 (185min) [13:56]  
maithili mane?10:51 (68min) [13:43]  
yash mane?10:55 (15min) [11:11]  
laxmi s melkeri?10:50 (83min) [12:41]12:48 (8min) [13:43]  
radhika nagtile?10:56 (14min) [11:11]  
pritam patil?10:55 (55min) [13:43]  
ritesh patil?10:53 (61min) [12:10]12:16 (0min) [12:16]12:46 (0min) [12:46]13:24 (0min) [13:24]13:3  
rutuja patil?10:51 (26min) [11:25]11:50 (29min) [12:50]13:20 (0min) [13:20]13:23 (1min) [13:36]13:  
sanika patil?11:16 (0min) [11:16]  
aditya powar?11:01 (6min) [11:07]11:28 (0min) [11:28]11:47 (0min) [11:47]  
snehal salunkhe?11:14 (0min) [11:14]  
ayushi shinde?10:57 (0min) [10:57]10:57 (3min) [10:59]11:00 (10min) [11:11]11:19 (0min) [11:19]11:  
pradnya shinde?10:49 (78min) [13:43]  
pallavi wakarekar?10:53 (44min) [12:39]12:40 (8min) [13:43]13:44 (0min) [13:44]  
dr. kunal wananje?11:00 (92min) [12:32]11:08 (3min) [11:10]11:11 (5min) [11:16]12:33 (69min) [13:  
you?11:17 (138min) [13:35]  
arti zirmite?10:59 (10min) [11:11]12:47 (0min) [12:47]12:58 (0min) [12:58]13:01 (0min) [13:01]13:0



महाराष्ट्र शासन  
स्थापना - १८८०

# राजाराम महाविद्यालय, कोल्हापूर

विद्यानगर, सागरमाळ, कोल्हापूर - ४१६००४

E-Mail: [rajaramcollege@gmail.com](mailto:rajaramcollege@gmail.com)

दूरध्वनी: ०२३१-२५३७८४०

फक्स: ०२३१-२५३१९८९

जा. क्र. रामको / आस्था-१ / २०२-२२/

दिनांक: २६/०२/२०२२

To,  
Dr. Vidya Deshmukh,  
Professor in Physics  
R. P. College, Osmanabad

**Subject:** Invitation as a subject expert for E-poster competition.

**Respected Madam,**

It gives us immense pleasure to invite you as a subject expert to evaluate E-poster on theme "Science in Everyday Life", submitted by our students on occasion of "National Science Day - 2022" celebration. This E-poster competition is organized by Science Association, Rajaram College, Kolhapur on 28<sup>th</sup> February, 2022 at 11:00 am on online platform (Google Meet).

Looking forward to your acceptance and presence on occasion.

Principal,  
Rajaram College, Kolhapur



महाराष्ट्र शासन  
स्थापना - १८८०

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जा. क्र. रामको / आस्था-१ / २०२-२२/

दिनांक: २६/०२/२०२२

**To,**

**Dr. Yogesh B. Gaikwad,**

Asst. Professor in Zoology,

Tuljaram Chaturchand College of

Art, Commerce & Science, Baramati

**Subject:** Invitation as a subject expert for E-poster competition.

**Respected Sir,**

It gives us immense pleasure to invite you as a subject expert to evaluate E-poster on theme "Science in Everyday Life", submitted by our students on occasion of "National Science Day – 2022" celebration. This E-poster competition is organized by Science Association, Rajaram College, Kolhapur on 28<sup>th</sup> February, 2022 at 11:00 am on online platform (Google Meet).

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Principal,  
Rajaram College, Kolhapur



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स्थापना - १८८०

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दूरध्वनी: ०२३१-२५३७८४०

फक्स: ०२३१-२५३१९८९

जा. क्र. रामको / आस्था-१ / २०२-२२/

दिनांक: २८/०२/२०२२

To,  
**Dr. Vidya Deshmukh,**  
Professor in Physics  
R. P. College, Osmanabad

## Subject: Letter of Appreciation

Respected Madam,

Our sincere thanks for accepting and honoring our invitation as subject expert to evaluate E-poster on theme "Science in Everyday Life", submitted by our students on occasion of "National Science Day – 2022" celebration on 28<sup>th</sup> February, 2022 at 11:00 am on online platform (Google Meet).

It was a real honor and privilege to have a vibrant person like you as examiner for this E-poster presentation. Your presence and interaction have influenced and motivated our students and participants.

Looking forward to many such fruitful interaction in the future.

Principal,  
Rajaram College, Kolhapur





महाराष्ट्र शासन  
स्थापना - १८८०

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जा. क्र. रामको / आस्था-१ / २०२-२२/

दिनांक: २८/०२/२०२२

To,  
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Tuljaram Chaturchand College of  
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### Subject: Letter of Appreciation

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