Dr. AMBEDKAR COLLEGE, DEEKSHABHOOMI, NAGPUR
Department of Physics

Name of the Programme : **"National Physics Day Celebration: Physics Charades: A Fun Learning Activity"**

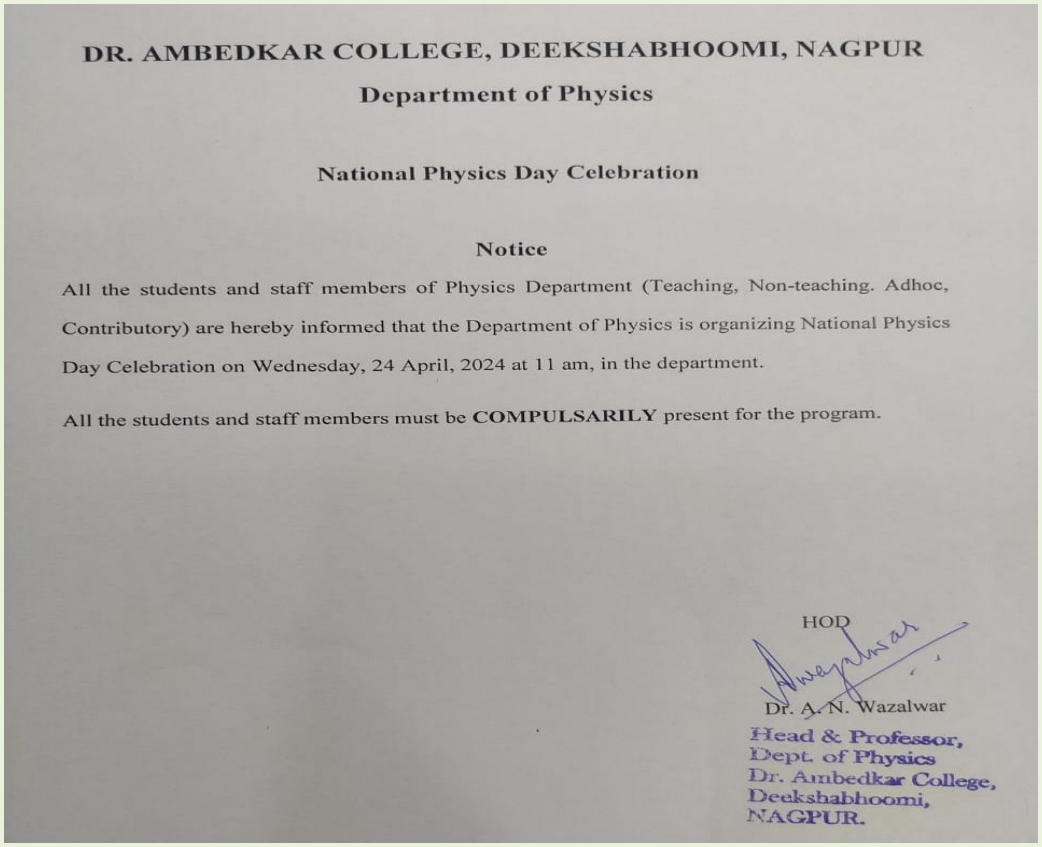
Date of the Programme : 24/04/2024

Number of Participants : 25

Hosted by : Dept. of Physics

Resource Person : Dr. Pritee Wakudkar

Notice



DR. AMBEDKAR COLLEGE, DEEKSHABHOOMI, NAGPUR

Department of Physics

National Physics Day Celebration

Notice

All the students and staff members of Physics Department (Teaching, Non-teaching. Adhoc, Contributory) are hereby informed that the Department of Physics is organizing National Physics Day Celebration on Wednesday, 24 April, 2024 at 11 am, in the department.

All the students and staff members must be **COMPULSARILY** present for the program.

HOD

Dr. A. N. Wazalwar
Head & Professor,
Dept. of Physics
Dr. Ambedkar College,
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Dr. AMBEDKAR COLLEGE, DEEKSHABHOOMI, NAGPUR
Department of Physics

National Physics Day Celebration: Physics Charades A Fun Learning Activity

Introduction:

World Physics Day is celebrated on April 24th each year. This day honors the contributions of physics to our understanding of the universe, technological advancements, and everyday life. It's a time to appreciate the work of physicists around the globe and to promote awareness and interest in physics among people of all ages. Physics has had a profound impact on virtually every aspect of modern life, from the devices we use to the way we understand the cosmos, making World Physics Day an important celebration for both the scientific community and the public. On this auspicious day department of Physics has engaged one of the interesting activity called Physics Charades. Physics charades is an innovative and interactive activity that combines the excitement of the classic game of charades with the educational value of physics concepts. This activity engages participants in non-verbal communication while promoting a deeper understanding of fundamental principles in physics. It is particularly useful for students who benefit from visual and kinesthetic learning styles. By acting out concepts such as gravity, magnetism, and refraction, participants not only have fun but also reinforce their knowledge in a creative and memorable way.

Objectives:

- To engage students in understanding and demonstrating key physics concepts.
- To promote teamwork, communication, and critical thinking.
- To provide an alternative approach to learning physics through active participation.

Materials:

- A list of physics concepts (gravity, friction, magnetism, etc.).
- A timer for each round (optional).
- A classroom or open space to allow movement.

Procedure:

1. Divided participants into teams. First team named as Dr. Isaac Newton and second team was Nicola Tesla.
2. One person from a team acted out a physics concept without speaking or using props.
3. The rest of the team tried to guess the concept within a time limit.
4. Points were awarded for correct guesses, and the team with the most points at the end won.
5. Rotated roles so that each participant has a chance to act out a concept.

Key Concepts Acted Out:

1. **Gravity** – Participants demonstrated the concept of gravitational pull by acting as if an invisible force was dragging them downward. This helped reinforce the idea that gravity is a force that pulls objects toward the center of the Earth.
2. **Friction** – By pretending to push an imaginary object while moving slowly and showing resistance, participants illustrated how friction opposes motion, providing a tactile sense of what the concept represents.
3. **Magnetism** – Acting out the forces of attraction and repulsion, participants simulated how opposite poles of a magnet pull toward each other, while like poles push apart, highlighting the invisible forces at play in magnetism.
4. **Inertia** – The concept of inertia was portrayed by participants continuing to move forward after pretending to stop, showing how objects resist changes in their state of motion, reflecting Newton's First Law of Motion.
5. **Pendulum** – A swinging arm movement mimicked the periodic motion of a pendulum, helping participants visualize how energy is transferred in oscillatory motion.
6. **Reflection** – Participants bounced imaginary light rays off of surfaces, demonstrating how light reflects off mirrors or other shiny surfaces, helping to visualize the behavior of light.
7. **Acceleration** – Gradually increasing the speed of movement illustrated how objects accelerate when a force is applied, linking the action to Newton's Second Law of Motion.

8. **Electricity** – Acting out electricity flowing through a wire with buzzing sounds helped participants understand the concept of current and how electricity powers devices like light bulbs.
9. **Refraction** – Changing direction sharply while moving, participants acted as light bending as it passes through mediums like air and water, showing how light can change speed and direction.
10. **Sound Waves** – With hand motions that mimicked the compressions and rarefactions of sound waves, participants demonstrated how sound propagates through different mediums.

Learning Outcomes:

1. **Enhanced Understanding**: By acting out these concepts, participants gained a clearer and more intuitive understanding of abstract physics principles. The physical nature of the game made these ideas more tangible and relatable.
2. **Teamwork and Communication**: The activity fostered communication and collaboration among participants, as they worked together to guess and explain the physics principles. It also helped students develop skills in non-verbal communication.
3. **Critical Thinking**: Participants needed to think critically about how to represent complex ideas using only body movements. This promoted creativity and problem-solving skills as they found ways to convey scientific concepts without words.

Conclusion: Physics charades proved to be a fun, engaging, and educational way to explore physics concepts. The activity promoted a better understanding of fundamental physics principles through physical movement and teamwork. By blending learning with play, participants were able to grasp challenging ideas in a more interactive and memorable manner. This activity could be used in classrooms, study groups, or even as a fun review before exams.

This method makes learning physics more accessible and enjoyable, fostering both understanding and enthusiasm for the subject.

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Department of Physics

Physics Charades Activity 2024

20 responses

Publish analytics

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Department of Physics

Name of the Student

20 responses

Aditya Narendra Chapare

Yashashree More

Nehal mankar

Mohinishende

Saksham Meshram

Manthan wanjari

Khushi Sanjay moharle

Payal balu bhide

Payal Bhide

Yash G. Thakare

Khushi jayant shende

ASHISH DHURVE

Archita Jageshwar Bhotmange

Arpita rajput

Roshani kanoje

Nusrat Rahman

Urvashi

Anushka lilhare

Khushi D. Kumari

HARSH SIDDHARTH DHAMGAYE

Dr. AMBEDKAR COLLEGE, DEEKSHABHOOMI, NAGPUR
Department of Physics

Group of Student

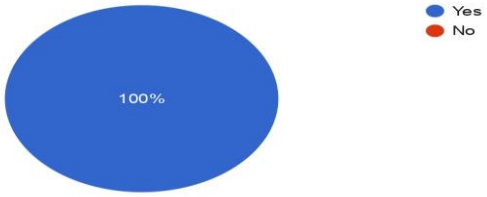
Copy

20 responses

Do you like the Physics Charades Activity?

Copy

20 responses



10/17/24, 3:59 PM Physics Charades Activity 2024

How this activity was different from regular guest lectures organized in the Department?

20 responses

Yes

It was very interesting

Good

It's great

its good

It is different as well as enjoyable

It was fun to do that activity with teacher and friends

Different and enjoying

Unique

It was fun to play such activity

Because it was interesting game

It's was fun and very interesting

Different because organisation is better'

I don't know

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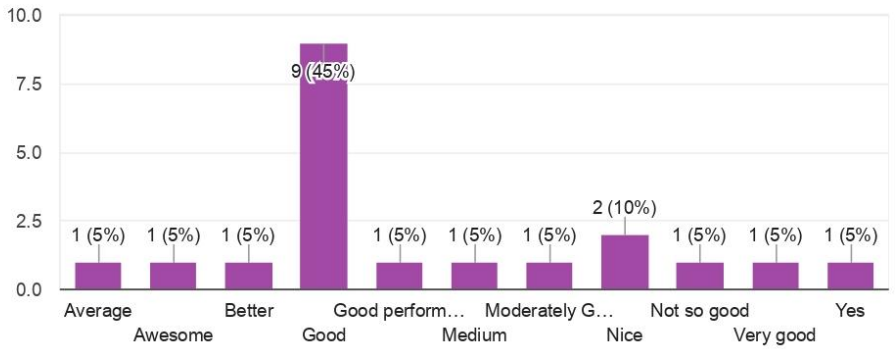
How was your performance in the activity? Copy

20 responses



Would you like such activities to be conducted in the Department on regular basis? Copy

20 responses