



NATIONAL PUBLIC SCHOOL, KENGERI, BENGALURU

Report on Grade 10 Educational Trip

An educational trip to the Jawaharlal Nehru Centre for Advanced Scientific Research [JNCASR] was organized by NPS Kengeri for the students of Grade 10 on 17th July 2026. The objective of the trip was to give students first-hand exposure to cutting-edge scientific research, interaction with scientists, and an understanding the real-world applications of concepts learned in the classroom. The trip was both informative and inspiring, and it gave a glimpse into how science works beyond textbooks.

The day began with an interactive session by JNCASR scientist Dr Arun Panchapakesan. As a senior biologist, he delivered an engaging lecture on "Recent Advances in Human evolution theory". He explained topics like DNA, gene editing, and how research at JNCASR is helping in medicine and agriculture. Another great Nano scientist Dr Vinayak Pattar demonstrated fascinating physics experiments that made complex concepts easy to understand. Among those, in Magnetic Levitation: the students saw how superconductors can levitate above magnets, demonstrating the Meissner effect. In Diffraction of Light: Using lasers and gratings, scientists showed how light bends around obstacles to form patterns. In Scattering of Light: The Tyndall effect and Rayleigh scattering were explained with live demos, helping us understand why the sky appears blue. The experiments sparked curiosity and many questions from students. The lecture included real lab images and videos. The Q&A session was very interactive and motivated many students to consider careers in Biology, Physics and Research.

The students visited the Bharat Ratna Gallery inside the campus which showcases the life, work, and contributions of all Bharat Ratna awardees, with a special section dedicated to Bharat Ratna Prof. C.N.R. Rao, the founder of JNCASR. The gallery inspired the students with stories of Indian scientists and their dedication to the nation.

In the chemistry section, the students saw a periodic table display with actual element samples. The scientists also explained atomic structures using 3D models. The students learnt about properties of elements, bonding, and how materials are designed at the atomic level for new technologies.

The most exciting part was the visit to the Electron Microscopy Lab where the students were shown how an electron microscope works and how it can magnify objects millions of times more than a light microscope. The scientists showed the students, images of cells, nanomaterials, and crystal structures captured using the microscope. This gave a real understanding of nanoscience.

The trip to JNCASR was an enriching experience for all Grade 10 students. It bridged the gap between classroom learning and real research. The students came back with greater respect for scientists and with a stronger interest in STEM. It was truly a day of learning, discovery, and inspiration.