

Field Trip 2022: Meteorological Centre, Alipore

NOVEMBER 12 2022



Educational trip to the Regional Meteorological Centre, Alipore

*A deep dive into the workings
of meteorology.*

In the second week of November, the students of Class 11 of Delhi Public School, Joka, had the opportunity to visit the Meteorological Centre, Alipore. The first batch of students set off on the 9th of November, followed by the second and third batches on the 10th and 11th. Being a first-time opportunity for many, the prospect of visiting a meteorological site induced excitement and curiosity among the students. On the morning of the educational trip, a buzzing crowd of students was addressed by the Principal, guiding us and encouraging us to learn as much as we could, after which we boarded our buses and set off toward the destination. The objective of the trip was to enhance our knowledge of meteorology and learn how concepts of physics and geography were applied to practical use.



A pleasant bus ride brought us to the Meteorological Centre where we were greeted by the Deputy Director General, Mr. Satyabroto Bandopadhyay. All of us were buzzing with curiosity and could not wait to explore the premises. The Regional Meteorological Centre set up by the Ministry of Earth Sciences consists of the main building and an Observatory, which faces an open area holding various equipment required to gauge weather details. To top it all off, the place is full of lush greenery and thus a lovely ambience. It was a beautiful, pleasant day and all these factors fit in perfectly to lend a cheerful aspect to the surroundings.

As we stepped off our buses and gathered in front of the observatory, we were divided into three groups that were to now be taken to the equipment area.

Once there, we were met with meteorologists Mr Abhishek Gayal and Ms Manika Kar who began explaining to us the utility and functioning of the machinery. An engaging and informative guide, Mr Gayal demonstrated to us the following instruments:



01 THERMOMETERS IN A STEVENSON SCREEN

We began with a Stevenson Screen, containing inside it two thermometers that are used to mark the maximum and minimum temperature of the day. We were encouraged to try and read the thermometer measurements ourself and we found the current air temperature to be 30 degree celcius.

02 THERMOGRAPH AND HAIR-HYGROGRAPH

The Thermograph and a Hair Hygrometer record the variations in temperature and humidity respectively on an attached graph sheet and are checked every 3 hours. My interest was piqued by the Hygrometer which made use of human hair, stripped of fat, to determine the change in humidity as it lengthens at high humidity and contracts at low humidity.

03 ORDINARY RAIN GAUGE AND SELF RECORDING RAIN GAUGE

An Ordinary Rain Gauge and a Self Recording Rain Gauge are both used to measure rainwater. The latter automatically records the level of rainwater in millimetres on a chart present inside the device.

04

OPEN PAN EVAPOROMETER

An Open Pan Evaporometer is used to determine the humidity levels of a day, this is checked twice a day at 8:30 am and 5:30 pm respectively. We were informed that this device is also used in agricultural fields to provide valuable data.

05

ANEMOMETER AND WIND VANE

Anemometer measures wind velocity by estimating the amount of wind speed against a surface. On the other hand, a Wind Vane measures wind direction and is also known as a weathercock.

06

AUTOMATIC RAIN GAUGE SYSTEM AND TIPPING BUCKET RAIN GAUGE

The Automatic Rain Gauge system is a satellite-based device used to measure rain rate as informed by Mr Gayal. It also makes use of a solar panel. Behind it was attached a Tipping Bucket Rain Gauge used for precise measurement of rainfall intensity and duration.



Once all three groups had been shown the various interesting instruments, we were led to the Weather Station where we saw various barometers; mainly the two types- Fortin and Kew. the former records temperature in Fahrenheit whereas the latter does so in inches, millimetres or centimetres. Lastly, we enjoyed an interactive session where the meteorologists explained to us the basics of satellite observations and upper-air observations of weather conditions and enlightened us about the importance of meteorology.



After this elucidating tour, we all gathered for a group photograph as a cheerful end to the trip. Soon the buses were ready and we boarded the buses, this time carrying with us a bag of new-found knowledge and tired smiles indicating an opportunity well utilised.

