DECODING THE EARTH: FIELD VISIT AT CSIR- NGRI

Department of Geography
The Hyderabad Public School, Begumpet

CSIR – National Geophysical Research Institute (NGRI), Hyderabad

6–9 October 2026 | Class IX



VISIT OVERVIEW

An educational visit organised by the Department of Geography for Class IX students to connect classroom learning with the study of Earth processes and geophysical research.

THE HYDERABAD PUBLIC SCHOOL
BEGUMPET

CSIR – NGRI
HYDERABAD VISIT

6th – 9th October, 2026 | **Class IX**

To understand the Earth system, learn about geoscientific research and explore the work carried out at CSIR-NGRI.



Group 1 – Class IX



Group 2 – Class IX

Conducted by:
The Department of Geography,
The Hyderabad Public School, Begumpet.

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DEPARTMENT OF GEOGRAPHY

CSIR – NGRI HYDERABAD VISIT

6th – 9th October, 2026 | Class IX



Group – 3 | Class IX



Group – 4 | Class IX

PURPOSE OF THE VISIT

To provide hands-on learning and exposure to geophysical research and the various processes related to Earth's systems.

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CSIR – NGRI HYDERABAD VISIT

Mechanics of Earthquakes & Seismology

Class IX



Interactive session on Earthquakes & Seismology



Seismograph – Recording Earth's Movements



Seismological Observatory, CSIR-NGRI

What Students Did

- Visited the seismology division, where scientists demonstrated how seismic waves are recorded and analyzed.

Learning Outcomes

- Observed real-time seismographs tracking tectonic movements.
- Learned how epicenters and foci are located.
- Understood the Richter and Modified Mercalli scales through practical examples.
- This demystified tectonic hazards and plate tectonics taught in the classroom.

Science in action...
understanding a safer tomorrow.

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DEPARTMENT OF GEOGRAPHY

FIELD VISIT REPORT | CSIR–NGRI, HYDERABAD

WATERSHED MANAGEMENT & BASIN HYDROLOGY

Class IX | Experiential Learning in Physical Geography

An essential component of physical geography is understanding hydrological cycle dynamics and water resource conservation.







LEARNING OUTCOMES

- Experts introduced students to hydrological models of river basins.
- Students explored how groundwater recharge is monitored.
- Learners observed how watershed boundaries are delineated.
- The visit highlighted rainwater harvesting and basin-level conservation strategies in semi-arid regions such as Telangana.

LEARNING BEYOND THE CLASSROOM

Connecting geographical concepts with practical demonstrations to build awareness of sustainable water management.

The Hyderabad Public School Begumpet

Department of Geography

CSIR-NGRI Hyderabad Visit

Ground Penetrating Radar (GPR) Studies

As a part of the CSIR-NGRI Hyderabad visit by the Department of Geography, The Hyderabad Public School, Begumpet, with class IX students, a session on **Ground Penetrating Radar (GPR)** technology was conducted.

To introduce cutting-edge geophysical exploration tools, students were given a walkthrough of near-surface geophysical investigations using GPR technology.



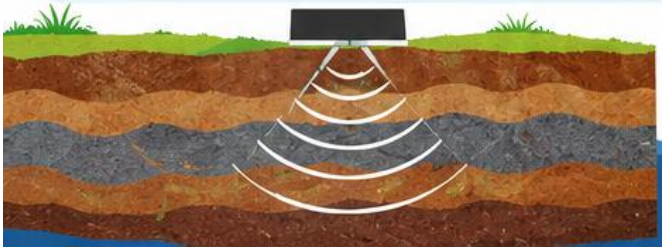


Key Learning Outcomes

Learned how electromagnetic pulses are used to image subsurface structures without excavation.

Understood its applications in civil engineering and archaeological mapping.

Explored its role in groundwater exploration.



Exploring the Invisible Beneath Our Feet

THE HYDERABAD PUBLIC SCHOOL, BEGUMPET

DEPARTMENT OF GEOGRAPHY | CLASS IX

CSIR–NGRI HYDERABAD VISIT

THE NGRI ROCK MUSEUM & LITHOLOGICAL EXHIBITS







A guided tour introduced students to NGRI's curated collection of geological specimens and the diversity of rocks that shape the Indian Peninsular Shield.

LEARNING OUTCOMES

- Examined igneous, sedimentary and metamorphic rocks.
- Explored ancient cratonic rocks and mineral composition.
- Connected rock specimens with the rock cycle.

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DEPARTMENT OF GEOGRAPHY | CLASS IX

CSIR–NGRI HYDERABAD VISIT

STUDENT ENGAGEMENT & LEARNING IMPACT







Throughout the visit, students engaged with scientists through thoughtful questions on tectonic activity, geological time scales and sustainable water use. Hands-on demonstrations encouraged observation, collaboration and real-world understanding of geographical concepts.

KEY LEARNING OUTCOMES

- Connected classroom concepts with scientific applications.
- Strengthened observation, inquiry and peer discussion.
- Explored geology, groundwater and sustainable water use.

Experiential Learning • Scientific Inquiry • Geography in Action

The Hyderabad Public School
Begumpet

CSIR-NGRI
Hyderabad

Visit to CSIR-NGRI Hyderabad

A learning journey in the world of Earth Sciences





After the successful visit to CSIR-NGRI Hyderabad conducted by The Department of Geography, the students of Class IX of The Hyderabad Public School, Begumpet, had an enriching interaction with the Vice Principal and Principal. They shared their experiences, learning and key takeaways from the visit.

Key Takeaways

- Understanding Earth's geological processes
- Exploring cutting-edge research and technologies
- Gaining real-world insights into sustainable resource management
- Building curiosity, confidence and scientific thinking

From the rocks beneath our feet to a sustainable future above — Geography connects it all.

LEARN • EXPLORE • MAKE A DIFFERENCE