

Report on Astronomy Club Workshop – 4

“Astronomy compels us to look upwards and lead us from this world to another.”

Date: 25th July 2025

The fourth astronomy session held for students of classes VI to IX continued to offer an exciting integration of science, history, and experiential learning. The session was divided into two interactive modules: Exploring Jantar Mantar and Basics of Rocket Science.

In the first module, students were introduced to Jantar Mantar as an ancient astronomical observatory, learning about its historical significance, purpose, and architectural marvel. They identified and studied various Yantras (instruments) present at Jantar Mantar, including Ram Yantra and Samrat Yantra, understanding their practical applications. Through a hands-on activity, students constructed models of the observatory and learned how to measure altitude and azimuth using Ram Yantra and calculate time using Samrat Yantra.

The second module focused on Rocket Science Level 1, introducing students to the basics of rocketry and the science behind rocket propulsion. Students explored the components of a rocket, the principles of Newton's Laws, and the use of water pressure in hydro rockets. Rocket propulsion is based on Newton's third law of motion- “For every action, there is an equal and opposite reaction.” When a rocket expels gas out of its engine at high speed (action), it moves in the opposite direction (reaction). They then built their own hydro rockets in teams and conducted launch experiments using special launchers, applying their learning in a fun, practical way.

The session concluded with a deep understanding of rocket launch, their deployment and exploring other worlds. The workshop successfully encouraged students to apply scientific principles through observation and experimentation. It also sparked curiosity among students to explore the options of aeronautical engineering.

