

## **Planetarium Education (Kindergarten to class 12) Deliverables:**

1. Upto 4 class wise progressive polar Shows in English and Regional Languages for each student in each class (Kindergarten to 12) and in each academic year.
2. Companion Show Book with each show.
3. Quiz and prizes after each show.
4. Class Room Test based on each show and its companion book.
5. Web Downloadable monthly Moon calendars and Sky maps.
6. Free Participation in Science competition of Tryst, annual technical festival of IIT – Delhi.

Planetarium Education - K12 is a holistic and scalable concept that connects the students with the night sky. It is based on the pedagogical efficacy of a full dome digital planetarium system as a Polar and not a Cartesian teaching aid for astronomy. It provides a solution to the inherent impediments associated with astronomy teaching and star gazing. It is companion to STEM Education (Science, Technology, Engineering and Mathematics). It has been designed to implement astronomy in the Indian school system K-12 through ready-made, scale-able, class appropriate, and progressive full dome (no part of the sky missing) planetarium shows developed in Indian ethos and related sky simulation scenarios produced by Leo Planetaria and various third party shows.

The companion book for each show not only improves the understanding of students but can also be linked to on the campus astronomy hands on activities and astronomy Olympiads.

A Quiz after each show helps in gauging the immediate learning outcome of the students. The prizes in the quiz help in motivating the students.

Besides, a class room based test on each show and its companion book for a more comprehensive evaluation can be conducted later on by the school.

The free monthly moon calendar is based on the waxing and waning cycle of the Moon (lunar calendar) and connects the students to the various upcoming festivals related to the Moon. The monthly sky map connects the students with the constellations, planets and deep sky objects that will be available for their viewing in their night sky.

Free participation in the science competition at Tryst - The annual technical festival provides exposure and opportunity to students and their teachers (mentors) to present their ideas/ papers to the professors of IIT and it is very much possible that a student's idea may lead to a new start up.

In house Planetarium Education means that astronomy can be made an integral part of the school curriculum covering whatever little is prescribed by the school/ board on astronomy subject and of course a whole lot more that is there in the cosmos to explore, learn, discover and enjoy.