

Bangalore Association for Science Education
Jawaharlal Nehru Planetarium
Sri. T Chowdaiah Road, High Grounds
Bengaluru – 560 001

SUMMER PROGRAMMES - 2019

Bangalore Association for Science Education (BASE) will be conducting several activity-based summer programmes covering a wide age group of students. The programmes comprise lecture-demonstrations, discussion-based interactive sessions, working on the computers, etc. The schedule is as follows:

1. Astro-computing

This five-day computer-based programme introduces students of classes VIII to X to methods adopted by astronomers to locate positions of asteroids, understand rotation of the Sun and other celestial motions using CLEA software. The batch commences on **April 10** and ends on **April 14**. Number of participants is limited to 20.

Time: 10:30 am to 1 pm

2. Tiny-Tots Programme

This is a five day activity-based science programme for students who have passed classes III, IV and V, that includes simple science demonstrations and model making. The activities are moderated through discussions by resource persons. The first and second batches commence on **April 2** and end on **April 7**. The third and fourth batches will be organised from **April 23** to **April 27**. Number of participants is limited to 25 in each batch.

3. Fun with Science

This is a five-day programme for students who have passed classes VI and VII. Students are taught the basics of science through demonstrations and hands-on activities. The batch commences on **April 10** and ends on **April 14**. Number of participants is limited to 30 in each batch.

4. Summer Course for high school students

This is for students of classes IX and X. It is an intensive programme consisting of theory classes, laboratory and computer sessions, demonstrations and film shows. About forty sessions on the theme **Classification of Things** has been scheduled. The course introduces the participants to various principles of classification in various disciplines in science. This programme commences on **April 17** and ends on **May 4**. Number of participants is limited to 40.

5. Universe in the Class Room:

This is a three-day programme for High School students and above. The programme consists of introduction to astronomy to students with hands on activities, models, demonstrations and movies. The first batch of the programme will be conducted from **April 19** to **21**. Number of participants is limited to 40. Second batch may be organized if there is a demand.

6. One Day Workshops for students

Two one-day workshops will be conducted for students of classes VIII - IX. These are activity-based programmes that introduce students to concepts in mathematics and science. The workshop will be held on Sundays between 10:30am and 3:30pm on **April 28th** and **May 5th** on the topic '**Prime Numbers**' and '**Science of Toys**' respectively. Number of participants is limited to 40.

7. Fundamentals of astronomy

This is a short course describing basics of astronomy and astrophysics from solar system to galaxies. The sessions are on Saturdays and Sundays from 10:30 to 12:00 noon. Open to people of all age groups (VIII & above) enthusiastic to learn A B C of the universe. Interactive sessions with demonstrative models for clarifying the concepts. Commences on 7th April; attendance compulsory for all sessions.

8. Principles of Indian astronomy

The is a three-day programme introduces to the techniques used in the Sanskrit texts like Siddhanta Shiromani of Bhaskaracharya. From basics of night sky to prediction of eclipses drawing parallels from modern spherical trigonometric methods. Class X and above can participate this workshop on 17th, 18th and 19th of May from 4:00 to 5:30pm.

9. Day time Astronomy

A three day workshop for high school students will be held on **19th, 20th and 21st of April** between 10:30 am and 12:30 pm. Includes activities with gnomon, Sun projection, measuring the angular size of the Sun and other hands on activities.

10. From Web of Life to Universe

This is a two-week long programme for college students. This is aimed at motivating PUC and B.Sc., students towards research both in Physical and Life Sciences. Lectures for these courses are given by scientists from research institutes. The lectures introduce the students to fundamental ideas and frontier areas of research in various fields. Special lectures by medical practitioners about relevance of physics and biology to medical science also are scheduled. This programme is *tentatively scheduled* to commence on **May 21** and end on **June 1**. Number of participants is limited to 25.

11. Zero Shadow Day – workshop

It is a one-day workshop where students observe Zero Shadow event and work with data observed from Bhopal, Chennai and Mangaluru and calculate diameter of earth and longitude of places.

12. Telescope Assembly Workshop

JNP is proposing to organise a Telescope Assembly Workshop in second fortnight of May. Participants will assemble a 6" Newtonian telescope with mount and take it with them. Registration fee is expected to be Rs.23,000/-. Interested participants may register their names in the office by paying a token fee of Rs.1000/-.

*No refreshments are arranged for any of the above programmes.
Applicable time schedule is given in the accompanying table for the above programmes.*