

**National Science Centre**  
(National Council of Science Museums)  
Ministry of Culture, Govt. of India  
Near Gate No.1, Pragati Maidan  
New Delhi-110 001

### **Brief details of course in Summer Hobby Camps 2019**

#### **Exploring Nature**

This camp is designed for students to share and enjoy the natural world. In this camp, students learn about the importance of plants, make herbarium, know about the soil, make soil profile sheet, know about micro world, make plant slide and peep inside it through microscope. They will get an opportunity to know more about the birds, make a bird finder and bird feeder. They also learn about human body and make a working model of lungs and understand about the dental health through hands-on activity.

#### **Scientific Toy Making (Junior) & Scientific Toy Making (Senior)**

During the camps, students make scientific toys/kits on scientific principles covering topics of sound, optics, mechanics, electricity etc. This makes scientific learning enjoyable and promotes thought process to explore newer ideas.

#### **Astro Lab**

If you love pursuit of imagination, if you cannot afford to give up enjoyment of looking & listening from afar and if you think that as space sailor you would peep through this vast universe which seems to be a limitless physical & chemical laboratory, Asto Lab camp can be a sparkler for you to ignite your enthusiasm. This camp is designed to give basic information on Astronomy-the science of celestial body. In this workshop, students learn to locate direction by shortest shadow activity. They will measure circumference of earth, make a refractor telescope, spectroscope and a model on phases of Moon. After completing this workshop students can identify stars, constellations, Planets, Deep Sky Objects in real sky.

#### **Biotechnology**

The course aims to help students to take a closer look at biotechnology through exciting experimental activities. It is expected that the activities will familiarize them about the basic techniques and handling of biotech equipment used to identify, isolate, processing and detection of microorganisms, DNA, proteins, enzymes etc. These experiments are based on hands-on activities in Biotechnology so that they can understand fully the principles involved.

#### **Wonders of Electronics**

During the camp, the students will get an opportunity to learn fundamentals of Electronics, introduction to microcontrollers & hands-on activities with Arduino based projects. They will also learn handling of basic measuring instruments used for designing a circuit. Students will be given exposure about the application of microcontrollers in daily life.

#### **Robotics**

It is a hobby camp covering LEGO robotics and coding activities. It will provide clear step-by-step instructions on how to build several unique robots, as well as extensive programming guidance, from the very basics of block programming. The students will learn application of Robots, basic of movement, controlling of direction etc. The students will also do PCB assembly of robot, programming on computer and fusing program on microcontroller chip.

**For further queries (if any) regarding the above, please contact education cell on 23371297, 23371893, 23371945.**