

Microbial Literacy Initiative - an Outreach Program 2022

Vanasthali Public School, Noida
organized under the aegis of Academy of Microbiological Sciences,
Association of Microbiologists of India

REPORT

An Outreach Program was organized by the Academy of Microbiological Sciences (AMSc) and Association of Microbiologists of India in association with the University of Delhi Colleges - Deen Dayal Upadhyaya College (DDUC), Gargi College (GC), Kirori Mal College (KMC), Ramjas College (RJC) and Phixgen Pvt. Ltd., Noida was organized at Vanasthali Public School, Noida (VSPN) on 18.04.2022 from 9:00 AM – 12:00 PM (Annexure 1 a & b – brochure & banner). Around 57 students from classes VIII-XII participated in the program (Annexure 2).

The program was initiated by Dr. Charu Dogra Rawat (RJC) by giving a brief introduction of the Academy of Microbiological Sciences (AMSc) and Association of Microbiologists of India and proactive role that Academy of Microbiological Sciences has undertaken, during recent years, to propagate microbial literacy in the Society and among School Children. The opening remarks were given by Ms. Shilpa Kale, Principal, VSPN who welcomed the program convenor Prof. Rup Lal and his team including Dr. Charu Dogra Rawat (RJC), Dr. Gauri Garg Dhingra (KMC), Dr. Jasvinder Kaur (GC), Dr. Shailly Anand (DDUC) and student volunteers, Ms. Ankita and Ms. Yogita (DDUC). Ms. Kale highlighted the significance of knowing and understanding about microbes particularly after the entire world is witnessing the havoc created by the Coronavirus.

Dr. Charu Dogra Rawat then gave an introduction of the Microbiology Literacy Initiative, stated the purpose of this workshop and made the students aware of the pervasiveness of microbes, which are present everywhere, in, on and around us. She emphasized on the importance of microbiology literacy and understanding that need to be propagated in the society and among children that will help to reduce 'information asymmetry' that exists between the field experts and other members of the society. Information of many activities, such as creation of basic microbiology knowledge resources, conduction of outreach programs etc. that are undertaken under the Initiative were also shared.

The introduction was followed by Prof. Rup Lal's talk on 'Microbes and Us' in which he talked about the ubiquitous nature of microorganisms. He interacted with the students and explained how microbes are majorly beneficial but the general public perceives them as only harmful. With simple examples, he made the students understand how important it is to know the role of microorganisms in our day-to-day lives. He emphasized how the

microbiome governs the functioning of the body hand-in-hand with lifestyle and dietary habits. He also addressed queries raised by the students.

The talk was followed by session on 'Seeing the unseen' conducted by Dr. Jasvinder Kaur and Dr. Charu Dogra Rawat. Through pictures, microscopic slides and culture plates students were made aware of morphological differences between microbes in the context of how they appear in textbooks, under microscopes (simple, STEM/TEM) and on culture plates in the laboratories. The session also revealed the basic concepts of bacterial classification based on Gram staining, biofilms and cultured/non-cultured microorganisms.

Dr. Gauri then introduced the students to the use of micropipettes in microbiology in the session 'Dealing with the microvolumes'. The working and principle of the instrument was explained to the students. The application of micropipettes in the laboratory for the use of preparations of chemicals, media, enzymes was told.

Last session of the program was a DIY activity, 'DNA extraction from the kitchen' conducted by Dr. Shailly and the student volunteers Ms. Ankita and Ms. Yogita. The students isolated DNA from tomato. Using simple household material such as salt, dishwashing soap and sanitizer, DNA was extracted from tomato which could be seen suspended as threads in the solution. The importance of DNA as the genetic material and coding for proteins that govern various functions in a cell was also highlighted.

"Interaction with students' session saw many queries coming from the enthusiastic students that were amicably addressed by the team. Seeing the overwhelming response from the students, 10 interjector prizes of Rs. 100 each were given to the students.

The students as well as the teachers who attended the program gave very positive feedback and showed eagerness to visit microbiology lab. Prof. Lal thanked Prof. R.C. Kuhad, Chairman, Academy of Microbiological Sciences (AMSc) for his whole-hearted support to conduct this program. He also emphasized that all participants should join hands in strengthening the ongoing activities on Microbial Literacy.

Glimpses of the Program





