

POPULARISATION OF SCIENCE PROGRAMME (PSP)

State- Level Workshop on Hydroponics

A. Objectives:

- (1) To train our small & marginal farmers and florists in the technique of hydroponics
- (2) To generate environmental consciousness amongst the people of the State.

B. Description:

Hydroponic is the method of growing plants using mineral nutrient solutions dissolved in water. In this, technique soil is not needed which is contrary to our belief that plant need soil for their growth. Almost any terrestrial plant will grow with hydroponics.

The Plant are grown in a containers containing nutrient solution. Only small amount of solution are poured in a container so that the roots of the plant are aerated. The solution is changed on schedule or once a week or when concentration is lowered.

The advantages of this technique is that, the water stay in the system and can be reused, thus lower water loss. It is also possible to control the nutrient level, thus no nutrient pollution. Stable and high yields. Pests and diseases are easier to get rid of than in soil because of the container's mobility. It is better for consumption. Hydroponics can be used in places where in-ground agriculture or gardening are not possible.

Workshop on Innovative Experiments In Chemistry

A. Objectives:

- (1) To help create an interest and excitement amongst school students to take up Chemistry as their career.
- (2) Build capacity by engaging young students in the scientific method of analysis developed by hypothesis, experiment, analysis and conclusions.

B. Description:

Chemistry played a very important role in the life and activities of human right from the kitchen to the Laboratory. Therefore, there is a need to create an interest amongst our student to take up this basic subject as in their career. The Vigyan Prasar along with Indian Institute of Technology, Kharagpur has developed a module consisting of many innovative experiments on this subject. The State Council of Science, Technology & Environment, Meghalaya will hold a 2(two) workshops for selected students of Class 10-12 in Shillong, East Khasi Hills and Tura, West Garo Hills.

State- Level Science & Environmental Fair (SSEF)

A. Objectives:

- (3) To inculcate a scientific temper amongst the people of the State, targeting mainly the school children.
- (2) To generate environmental consciousness amongst the people of the State, particularly the school children.

B. Description:

State-level Science & Environmental Fair will be organised at one of the district headquarters, in which school children selected from the Block-level Science & Environmental Fairs will participate. The Fair will also be opened to the general public and will continue for three days. The scheme will provide an opportunity to children from different parts of the State to come together and interact amongst themselves on topics, issues, and problems pertaining to the respective areas from which they belong to. It will also give them an opportunity to learn about the natural set-ups, including bio-diversities, prevailing in different parts of the State. Special interaction sessions will be arranged on these aspects. Lectures on various current scientific topics and environmental issues will be organised during the programme. Also, a local exposure trip to various places of scientific interest and environmental importance will be organised for the participants. Nature camp, environmental game, technology exhibition, science exhibition, exhibition of children's creative skills and environmental march will be included in the programme. A session on explaining "science behind wonders" will also be arranged. A lecture by a prominent scientist will also be included in the programme.

Block-Level Science & Environmental Fairs (BSEF's)

A. Objectives :

1. To inculcate a scientific temper and generate an environmental consciousness amongst school children.
2. To create a general awareness on Science & Technology at the block- level.

B. Description :

The scheme will be implemented in all the C&RD Blocks of the State with the help of the Deputy Commissioners, District Planning Officers and Block Development Officers.

The programme will cover 2 (two) main topics, i.e., Science and Environment, under which various activities will be organised. Under the Science topic, the activities to be included will be the science quiz, science essay competition, science demonstration, and science exhibition for school children. Under the Environment topic, the activities to be conducted will include the environmental quiz, environmental essay competition, environmental march, environmental game, and environmental painting competition. Besides these activities, popular lectures on Science and Environment will be organised. Technology awareness session and a session on explaining "science behind wonders" will also be included in the programme. The programme will be of 2 (two) day duration. The various events/competitions will be organised for two categories of school children viz. Group-A (Class-VIII to X) and Group-B (Class-V to VII).

National Children's Science Congress (NCSC)

A. Objectives :

1. To ultimately generate scientific minded citizens targeting young children, who are the future citizens of the Country.
2. To provide a forum for children to pursue their natural curiosity and quench their thirst of creativity.
3. To relate learning of science to the environment around.
4. To inculcate a scientific temper amongst children through the practice of the method of science, i.e. observation, collection of data, experimentation, analysis and arriving at a conclusion.

B. Description :

National Children's Science Congress is a nation-wide programme organised in the State by SCSTE, Meghalaya, the national organiser being the National Council Science & Technology Communication-Network (NCSTC-Network), New Delhi. The programme is catalysed by NCSTC, Department of Science & Technology, Government of India. In this programme, young children are involved in scientific projects aimed at generating scientific minded citizens. Under this programme, children, both school going and non-school going, in the age group of 10-17 years, are asked to take up projects relating to the problems/ issues in their immediate surroundings. A particular theme is given each year, under which projects are taken up by children.

Science Camps (SCs)

A. Objectives:

1. To popularise and communicate science amongst the people at the grass root-level, particularly amongst school children in rural areas.
2. To inculcate a scientific temper amongst the people at the grass root-level.
3. To create an inquisitiveness and fun in learning science amongst school children.
4. To supplement classroom teachings.
5. To propagate scientific culture in rural areas of the State.

B. Description

The scheme is aimed at creating science awareness amongst the people of the State, especially those in rural areas. For College students, school children, the scheme will play an important role in supplementing classroom science teaching. Science exhibition, explaining 'science behind wonders', fun-science demonstration, science popular lectures, seminar, science debate, science quiz, etc. would be the activities to be included in each of the proposed Camps. Collaboration with different schools and colleges in their initiatives to popularise science and technology is also being done.

During the current financial year the Council will conduct 20 Camps in the State

The programme would be implemented in association with the concerned NGO's, educational institutions, local durbars, etc.

Science Exposure Trip

A. Objective:

1. To provide an exposure to selected school children to the latest scientific developments and achievements in the Country
2. To broaden the scientific outlook of children through the interaction with scientists from different scientific institutions.
3. To promote the inculcation of scientific temper among school children.

B. Description:

In the programme, selected school children from the different districts will be taken separately to places of scientific interest outside the State (i.e. Kolkata, Bangalore, etc.) for exposure and also interaction with working scientists. The programme will be implemented by the respective District Planning Officers in coordination with the State S&T Council. Travel plans will be prepared and coordinated by the Council. Questionnaires will be handed over to the participants to fill-up during the trip and the same along with the report will be submitted by each of them after returning from the trip.

Award For Meritous Students In Science

A. Objective:

1. To recognise the student who have the highest marks in Science in Meghalaya SSLC Board Examination
2. To encourage the students to pursue basic science in their higher studies.

B. Description:

In the proposed scheme, the students who secure the highest marks in Science in the Meghalaya SSLC Board Examination during the current financial year will be awarded. If the number of highest is more than one, the amount will be divided among them equally.

Assistance to Natural Resource Awareness Clubs in Meghalaya

A. Objective:

To promote deeper awareness on bio-resources and to enthuse students about the role of biotechnology in their sustainable utilisation.

B. Description:

The clubs in schools were formed under the initiative of Deptt of Biotechnology, GOI. The project was for 3 years, i.e 2009-2010, 2010-2011 & 2011-2012. Under the project 18 schools in Meghalaya were selected through the Director of Secondary Education and Literacy, Govt. of Meghalaya and minor laboratory equipments, glasswares and chemicals were given to each school to undertake various hand-on activities, laboratory studies, experiments related to bio-resources. However, the project was discontinued by DBT.

It is now being proposed to continue the activities in these clubs under the State Government assistance.