

## SESSION: REIMAGINING SCHOOLS: SCHOOL LEVEL ACTIVITIES

ACTIVITIES	DURATION (MINS.)	EXPECTED OUTCOME
Concept enrichment through Organic Farming	90 MINUTES	Participants will attempt to know how Organic Farming helps to clarify the concepts of Science, Maths, Social Science and other subjects. Organic farming is suitable to inculcate concept of food security, dignity of labour, team work etc.

### Activity: 1

Facilitator briefs about the Organic farming initiatives in different schools

### How to conduct the activity?

Method: Small group discussion and writing as well as presentation.

### SUGGESTED STEPS:

- ❖ Provide few video clips and photographs of Organic farming practices in schools of Sikkim
- ❖ Divide the participants in groups of 4-5 members as per the strength.
- ❖ Give initial instructions to introduce the purpose of the session
- ❖ Allocate them different subjects i.e., Geography, Maths, Biology, Economics, Civics etc .
- ❖ Give instructions to carry out the activities in the small groups.
- ❖ Provide chart paper, colour pencil, sketch pen and plain paper.
- ❖ Observe the work being carried out by each group and provide necessary help/ handholding wherever required.
- ❖ Give instructions for subject-wise presentations.

### REFLECTIVE QUESTIONS

- ❖ What is an innovation?

- ❖ How can we call Organic farming practices in schools as innovations of schools?
- ❖ Which are the different subject concepts can be clarified through Organic farming practices in schools? how?
- ❖ Is it possible to practise organic farming in every school? How to manage time table and work force?

### **NOTES FOR THE FACILITATOR**

- ❖ Provide ample opportunities and spaces for participants to deeply understand the concept of Organic farming and its usefulness.
- ❖ Facilitator may provide some video and photographs of organic farming practices in schools to the participants and allow participants to brainstorm pertaining to its significance and reason behind its introduction.
- ❖ Encourage participants to think 'out of box'.
- ❖ Facilitator may provide few hints for subject-wise concept clarity through organic farming practices.

### **KEY MESSAGES**

- ❖ Proper organic farming practices in school can help teachers in transacting different concepts beautifully.
- ❖ Organic farming not only inculcates team work, fitness but also clarifies the concepts of food security, dignity of labour and different subject knowledge.

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## **INTRODUCTION:**

The moment we get the word innovation we start thinking about science and technology or some hi-fi sophisticated instrument or changes. Such notion prevails in our mind and hinders to understand the simplicity of the word, but in reality innovation happen when an idea is implemented to give an impact. Innovation is a creative thought or fresh initiative that emphasizes us to look at problem in different way and solve them. In any organisation, Innovation helps the team to grow and deliver better outcomes day by day. Innovation must be replicable at any economical cost and must satisfy a specific need. It is basically 'doing something new or doing something old in a new way'.

In school, Innovation enables all stakeholders to explore research and use all available resources to uncover something new. It fuels the system to thrive and transform. School can become effective learning organisation through original/innovative ideas. It is apparent now that innovation can happen in any place and at any level. For innovation there is no need to spend huge amount of revenue and human resources. It's possible to get desirable impact from judicious implementation of ideas.

. School is considered as miniature society as well as place of learning for different types of learner. With the dawn of 21<sup>st</sup> century, there is expectation explosion from school by various stakeholders. In such a juncture, school need to fulfil the aspirations of stakeholders through different achievement and initiatives. Though to fulfil expectation of stakeholders is a daunting task but not an impossible fulfil.

School can do lots of improvements in different spheres if it uses its resources judiciously. It can bring changes/ impact with the proper utilization/ implementation of ideas. Apart from building and playground, most of the school have open/ barren land which is hardly useful/ productive for school. Innovation can be done in such a barren or unproductive land through proper planning and ideas. Such unproductive land can be transform for revenue generation as well as place of learning.

Being a non-profit organisation where profit is not an important criterion, the impact of organic farming was to measure to what extent it helps to inculcate the concept of chemical free farming, dignity of labour, group work, physical fitness and subject enrichment. Besides above objectives the idea of organic farming was to support school financially (small amount) as well as to transform theoretical knowledge into practical.

## **CORE CONTENT:**

Kripasalyan GSSS Daramdin is situated in the west district of Sikkim. Daramdin is considered as most fertile land of Sikkim. School is located just ½ km above Daramdin market with beautiful location and ample of spaces. Around 3.5 acre of schools land was barren since 14 yrs. In 2017 some teachers and school head decided to use barren land for organic farming.

Initially it was a herculean task to prepare land for cultivation. With the initiatives of students and teachers land got prepared for farming. Land got ready but there was acute shortage of manure for cultivation. Being a rural area school, student collected some manure from their home but was not sufficient and was not a permanent solution.

In second stage, with the support of horticulture department, students and teachers prepared manure from EM ( Effective Microbes), vermi- compost pit, and compost pit. It was a great learning experience for teachers and students to prepare chemical free manure for cultivation. The idea behind the initiation of farming was to challenge the notion of farmers towards viability of organic manure and production as well as to train students to grow sustainable and hygienic products with good market value.

Slowly and gradually students started to understand the need of organic farming production and same message got conveyed to their respective family members. With the involvement of students and teachers not only barren land got converted to cultivable as well as different types of vegetables and crops started to grow. In the process of cultivation, since preparation of land, sowing of seeds, transplantation, weeding, harvesting, selling of products, output form particular brand of seeds, it was a great learning experience for students and teachers to understand time factor, temperature, breeds quality, amount of manure, water requirement as well as labour requirement. It also enable students to learn marketing as well as value of products, parents hard work, dignity of labour as well as team work and patience. In the span of 4 yrs. school manage to grow variety of crops like : Lady finger, pea, carrot, radish, maize, potato, tomato, broccoli, cabbage, cauliflower, beans, coriander leaf, tapioca, bottle guard , bitter guard , turmeric etc. and found lady finger, potato and radish as most suitable and productive crop.

## **SUBJECT-WISE LEARNING EXPERIENCE**

Organic farming became a good learning experience for teachers and students. Teacher demonstrated different theoretical concepts in the field to the students which enhanced students understanding in different topics. Following topics and concepts of different subjects were demonstrated to students:

### **GEOGRAPHY:**

- Climatic conditions of Daramdin as well as of world and its influence in farming.
- Requirement of different temperature for growth of different crops and influence of latitude, longitude and height from the sea.
- Soil and types of soil influence over crop production.
- Producer and consumer of different food grains and its transportation.
- Concept of food security.

### **MATHEMATICS:**

- Calculate total area of school and land under cultivation.
- Production per acre.
- Production cost as well as Profit and loss.
- Different shapes and sizes and production .

### **SCIENCE:**

- Germination of seeds
- Monocot and dicot seeds
- Epigeal and hypogeal germination
- Cotyledons and other parts of seeds useful for germination
- Requirement of water, light and manure for proper growth of seeds.
- Transplantation, insects, weeds, pest, process for protection.
- Different types of leaf, parts of flower, and whole plant.
- Pollination, reproduction, maturation etc.
- Preparation of chemical free manure, pesticides and insecticides from locally available resources.
- Knowledge of High Yielding Variety of seeds and selection procedure.