

**School Name: Sketches Montessori School**

**MCOP5 Target: RECYCLING PROGRAM AND RESTORING URBAN  
BIODIVERSITY IN OUR LOCALITY**

### **Table of Content**

- **Meet our Team**
- **Composting at Sketches Montessori**
- **Butterfly garden**
- **Clean up drive**
- **Bio enzyme**

## Meet our Team



Hi! I am Varni from Sketches Montessori School and I want to save the world from climate change. Taking part in MCOP is one step closer in achieving that goal...

Hi! My name is Urshita. I have noticed a lot of changes in the environment like many flash floods, mudslides, drought, illness, and the thing that hurts me the most is Antarctica melting. To help the environment, my friends and I are stopping to use everything that contributes to global warming.



Hello! My name is Nishchal and I want to save the Earth from global warming.

Hello! My name is Tanvi Tyagi from Sketches Montessori. I want to make the Earth a sustainable place to live. We are doing our bit to stop climate change.





## COMPOSTING

In mid-July 2023 we did composting in our school for the first time. We didn't know anything about composting until our teacher Ms. Chikkla introduces it to us. She presented us how to do composting. We prepare compost in terra-cotta pots that we got from a company called Green Karma and we also painted the pots for fun.

the pots for fun.

Each day we collect approximately 600 to 700 g. We gather all of the peels from our food preparation and then we take them to the garden. There, we place all of the peels into one of the pots and sprinkle some coco peat over the peels. Weekly, we also sprinkle a powder called compost speedup (The Daily Dump). It takes 40 to 60 days for the compost to decompose properly.



Once decomposed, we take it out of the terra-cotta pot and let it dry in the sunlight. Many decomposer friends like maggots and earthworm help us in the process as well. When the compost is complete dry, it loses almost half of its weight. We sieve the dried compost and then use it in the school garden.

Composting has many benefits, such as better improving soil health, enhancing plant growth, and significantly reducing waste. When we first started composting, we had a lot of fun, and as we continued, we learned that it is very important for the environment. Without composting there would be lesser and lesser biodiversity and nutrients in soil. To help the environment, please start composting!





## THE BUTTERFLY GARDEN

We got the idea of a butterfly garden from a guide from VEDVAN. This year, we decided to create a BUTTERFLY GARDEN.

We then reached out to a specialist, Mrs. Gunjan, from the Joy of Learning foundation. She provided us with the list of plants we needed for a BUTTERFLY GARDEN such as Nimbo, Pattarchatta, Chitrak, Kamini Curry patta and others. After that, we searched for a nursery that could provide us with these plants. We found one near our school called Bharat Nursery. We visited the nursery. It was a beautiful nursery. We brought some plants. We brought the plants back and planted them in our school garden. After planting, we noticed that butterflies started visiting to our garden.



## SAVING BUTTERFLIES FROM EXTINCTION

In Southeast Asia, there is a need to stop the extinction of these pollinating insects, including butterflies, are endangered due to habitat loss, climate change and pesticide use. Conservation efforts involve habitat restoration, research and awareness campaigns to save BUTTERFLIES. The BUTTERFLY GARDEN is our contribution to prevent BUTTERFLIES from extinction.



## OTHER VISITORS IN OUR SCHOOL GARDEN

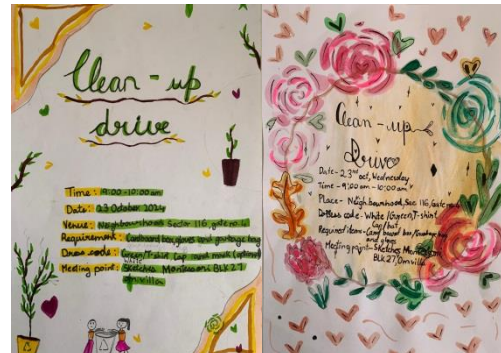




## Waste Segregation

In October'24, we started waste segregation in our school. While we were doing waste segregation, we experienced a mix of emotions- joy and sadness, tiredness and many more. From food waste, we made compost; from paper waste we made papier-mâché. We sent all the plastic waste to an NGO called the Indian Pollution Control Association. We also collect E-waste separately.

We organized a clean-up drive on 23 Oct'24. We planned the event, from sending invitation in the neighborhood to determining how and where it could take place.



For the invitation, we designed posters for the clean-up drive and we had them photocopied for the distribution. We decided to hold the drive in sector 116 (In the school's neighborhood). We went door to door to invite people in our neighborhood for the cleanup drive. We invited the RWA president to support us in the drive. On the clean-up drive day, we arranged all the necessary supplies like gloves, cardboard boxes, sanitizers and other essentials. Many parents from the school community joined us.

We divided ourselves into four groups to cover the area around the school. We collected plastic bottles, wrappers, and plastic containers from the streets. We collected 14.5 kg of plastic from the clean-up drive. We sent all the collected waste to Indian Pollution Control Association.

Through this initiative, we want to send this message “We should be careful and we must think about our future generations”. We hope everyone can do their part to help the world.

We would like to extend our heartfelt thanks to everyone who joined us for the clean-up drive.



## BIO - ENZYME WORKSHOP REPORT

We had organized a BIO - ENZYME workshop on 13 July 2024 at Sketches Montessori School, because we wanted to enlighten people about the harmful effects of bathroom cleaners. BIO - ENZYME has lots of benefits: it has citrus, it cleans properly, it is safe for the environment, it can be easily made at home and it has multiple uses. We had a talk with one of the people from the Joy of Learning Foundation (JLF), M.s Gunjan. She taught us how to make different types of BIO - ENZYMES: Rose, Jasmine, Neem, Citrus and many more. Here's how to make BIO – ENZYME



You need:

1. Citrus peels, (lemon, Orange or a combination of all)

2. Non refined jaggery
3. One empty and clean plastic container (preferably wide mouth) with an airtight lid. (No glass bottles, as may break).
4. Clean drinking water

Two ways to measure ingredients:

1. By weight

Use a weighing scale to weigh the ingredients. Ratio of ingredients is 1: 3: 10 or 100 gms jaggery: 300 gms peel: 1000 gms water.

2. By volume

Use a cup of any size to measure all ingredients in ratio 1: 3: 10 (Jaggery: Peels: Water)



Steps:

1. In the airtight plastic container add the entire ingredients one by one (1 part jaggery, 3 parts citrus peels and 10 parts water.)
2. Do not fill till brim. Leave at least 30% space empty in the container.
3. Close the lid cap. Label the container with ingredients and date.
4. Keep in dark space or in an area with minimal sunlight.
5. Twist the cap of the bottle every day, to let out air. Twice a day for the first 15 days, once a day for the next 15 days. Then do so alternate days, then once a week. Gently stir shake every day.
6. A white layer may form on the top BIO - ENZYME (BE). These are microbes and a good sign. Please shake the bottle and continue.
7. Only if the BE turns black, it needs to be discarded. Start a fresh batch of BE in the same cleaned container. If worms are seen in the BE, add some more

jaggery and keep the bottle tightly closed. If the worms don't disappear even after 15 days, discard the mixture.

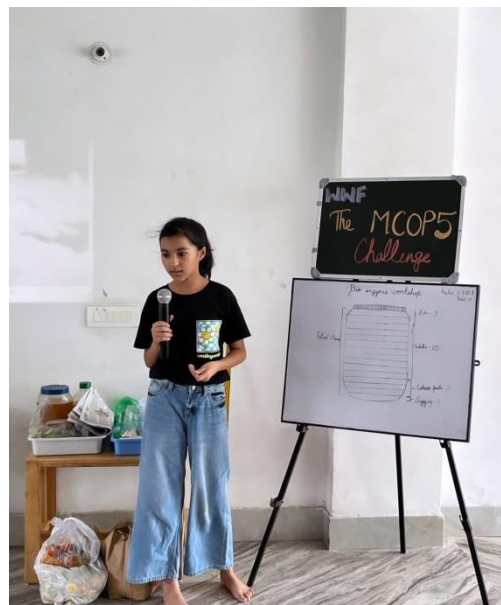
8. The BE will be ready ONLY after 90 days. The peels will settle down and a clear liquid will be seen floating on top.

9. If a starter (a little bit of BE) is added, then the time to make BE is reduced to 45 days.

10. After the time, filter the BE. The clear liquid is BE. Store in a clean airtight bottle and leave some space empty. Use as required.

11. The peels can be used as fertilizer, starter for the next batch, grinded and used as a heavy duty cleaner or simply composted.

- BE can be made of different fruit and vegetable peels (papaya, mango, pineapple, pomegranate, raw turmeric, etc.).
- Avoid sticky things (like lady finger), colored ones (like beetroot, black carrot), smelly ones (like garlic, onion), any rotten|smelly|pest infested fruits, cooked food.
- BE can be made of different flowers (rose, marigold, hibiscus, jasmine) and leaves (neem, aloe Vera, lemon grass, moringa) etc.
- Different BE can be used as skin care (rose, turmeric) and hair care (neem, amla, hibiscus, curry leaves).
- Once the BE is prepared and then strained, the peels can be added to the compost to accelerate composting. The peels can be added to soil to increase soil fertility.





- BE helps to rejuvenate water bodies. One liter of BE cleans 1000 liters of dirty water.



We sent out the invites on social media for the workshop. We prepared for the workshop; we arranged the ingredients like jaggery, citrus peels, and lots of water, flowers and plastic bottles. Around 30 individuals attended the workshop including the school team. We started talking about cleaners and its harmful

effects, and then we told them to smell all of the BIO - ENZYMES we made, one by one. We also showed them how to make BIO - ENZYME and gave them a BE sample to use at home. About 90% of people started making BE after the workshop.

It was a very interactive and knowledgeable session on BIO - ENZYME.

We make and use BIO - ENZYME in school too. We hope this gives others a message for not using harmful cleaners.