LOCAL NATURE-BASED LEARNING PROGRAMME

Second Term Report






NOVEMBER 2023 - JANUARY 2024

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Acknowledgments

This project is supported by the Rainmatter Foundation and Freshworks. Nature Classrooms provided valuable inputs in the process of study design and analysis. The team thanks the Greater Chennai Corporation for their encouragement and interest in nature education.

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Overview

In the second term of the Local Nature-based Learning Programme, we conducted 24 sessions with 147 students from the 8th class in five different schools (Table 1). These sessions contained five primary activities designed for the students- Ant Walk, Bird Calls, Frog Calls, Nature Journaling, and Midline Feedback Survey. Compared to the first term, there were more indoor activities in the second term owing to the rainy weather. We created a set of new materials to encourage students to engage with the activities and to take the resources back with them at home. The material created consisted of posters on Common Ants of Chennai, Common Frogs of Chennai, Frog Life Cycle, NCF Bird Flashcards, and photographs to tell stories about ants and frogs depicting various interesting behaviours. Along with this material, we used tools and equipment to aid the activities, such as pre-recordings of local bird calls and frog calls, Bluetooth speakers for listening sessions, headphones, magnifying glasses, and art material. In addition, the second term also included four internal training sessions with educators who led the activities in schools. In this report, we describe the methods and outcomes of these activities, some successes, and some of the challenges faced during this period, as well as the next steps in the programme.

No.	School Name	Zone	Parks	Distance to Parks	Class Strength
1.	Chennai High School, Manikanda Street	North Chennai	Robinsons Park	230 m	27 9 Girls 18 Boys
2.	Chennai Urdu High School	North Chennai	Robinsons Park	600 m	41 15 Girls 23 Boys
3.	Chennai Boys Higher Secondary School, Nungambakkam	Central Chennai	Independence Day Park	230 m	15 Boys
4.	Chennai Girls Higher Secondary School, Nungambakkam	Central Chennai	Independence Day Park	350 m	42 Girls

5.	Chennai Middle School Gandhigramam Kalakshetra Colony	South Chennai	Corporation Park, Beasant Nagar (Near Kalakshetra)	10 m	22 9 Girls 13 Boys

Table 1: List of schools and students engaged in the Local Nature-based Learning Programme

Internal training sessions

Through this programme, we have been evolving new activities to link children's natural surroundings in their campus and nearby parks to their literacy and science learnings. To deliver this effectively to them, we have been conducting internal training sessions anchored by Yuvan - for the team to experience the activities themselves, gain the relevant knowledge to facilitate it, and discuss ways to make it more engaging for children. We have had four training sessions this term- ant observation, identifying and describing local bird calls, identifying and describing local frog calls, and methods of nature drawing. Facilitators then were able to take the knowledge and skills gained in the training sessions and discuss the best ways to take it to children. These training sessions will also be modelled for future training sessions for GCC teachers.

Ant Walk

In-school Campus Session

Materials/Tools Used: Common Ants of Chennai Poster, visual aids, magnifying glasses, and journals.

The educators started the session with stories about the ecological importance of ants, as biological pest control, how they help in soil aeration by transferring air to soil and roots of plants, and bioturbation (transfer of nutrients from one place to another). We also shared common behaviours of common ant species and children learned to draw the morphological structure of ants. The primary objective of this activity was to acquaint the students with simple Nature Journaling techniques and increase their observation skills. The students were given a task to observe around 10 species of ants on the school campus. One example of drawing an ant by using a simple 3-circle technique with the description of the size, colour, behaviour of ants was done in class. We had visual aids related to ant tournaments (fight between two ant soldiers of the same species where the winner takes over the habitat), ants and aphid relationship, and live rafting (a behaviour exhibited by ants in floods when ants want to move from one place to

another, all the ants clump together and float in the water protecting the queen, larvae, and eggs in the centre and the workers use their legs as paddles and moves to another location) to anchor and invoke students' wonder and attention.

Image 1: Students observing and journaling ants during Ant Walk session at CMS Gandhigramam

Image 2: Students journaling ants using tools introduced to them in the Ant Walk activity

Image 3: Students observing and journaling ants during the Ant Walk session at Nungambakkam Girls Higher Secondary School

Image 4: Commons Ants of Chennai, a poster created for the Ant Walk session

Bird Calls of Chennai

Indoor Session

Materials/Tools Used: Bird flashcards, bird calls from ebird, Bluetooth speaker, headphones, and journals.

Students were oriented with the importance of bird calls by giving the examples of many indigenous communities living in and around forests who rely on bird alarm calls to avoid danger such as the presence of a large predator and a lot of incidents where birds tend to find disasters like tsunamis or gas leakage before us. The primary objective of this activity was to increase students' listening skills, identify local bird calls, and improve descriptive writing. We started with an example of a bird call and let the students describe the bird calls and fill in the simple sound observation table having adjectives that described the nature of the call, “Words I hear” or “sounds like”, and the name of the bird. Students were introduced to calls of about 8-10 local bird species such as the Black Kite, White-throated Kingfisher, and Flameback by using their pre-recorded calls. We also had a bird call quiz and winded up by giving them suggestions to listen to local bird calls at their home and also to use the bird flash cards.

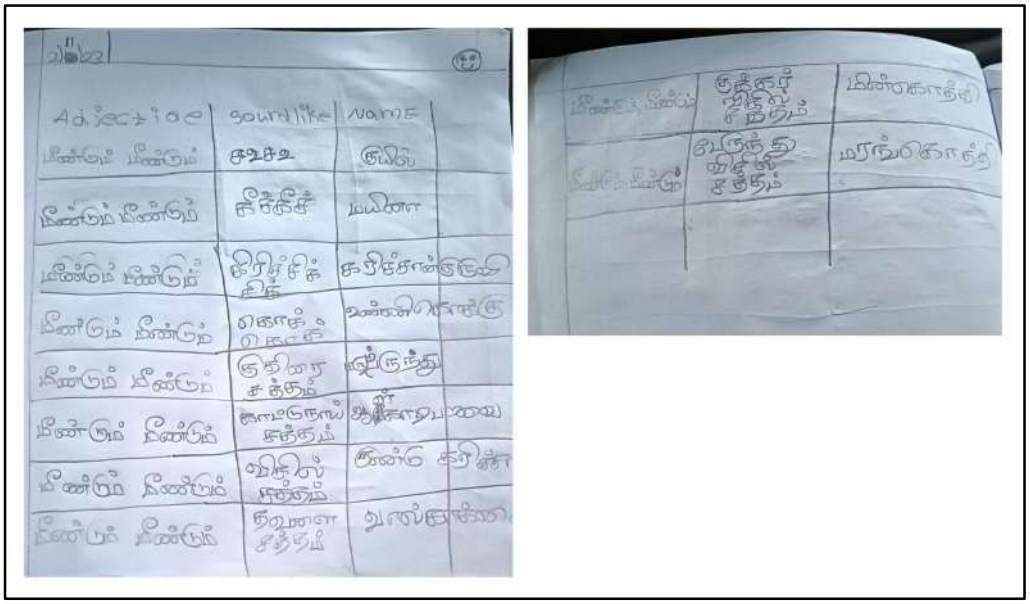


Image 5: A page from a student’s journal describing different bird sounds that were heard by the student

Image 6: Students trying to mimic and identify bird calls during the Bird Calls session at Chennai Boys Higher Secondary School, Nungambakkam

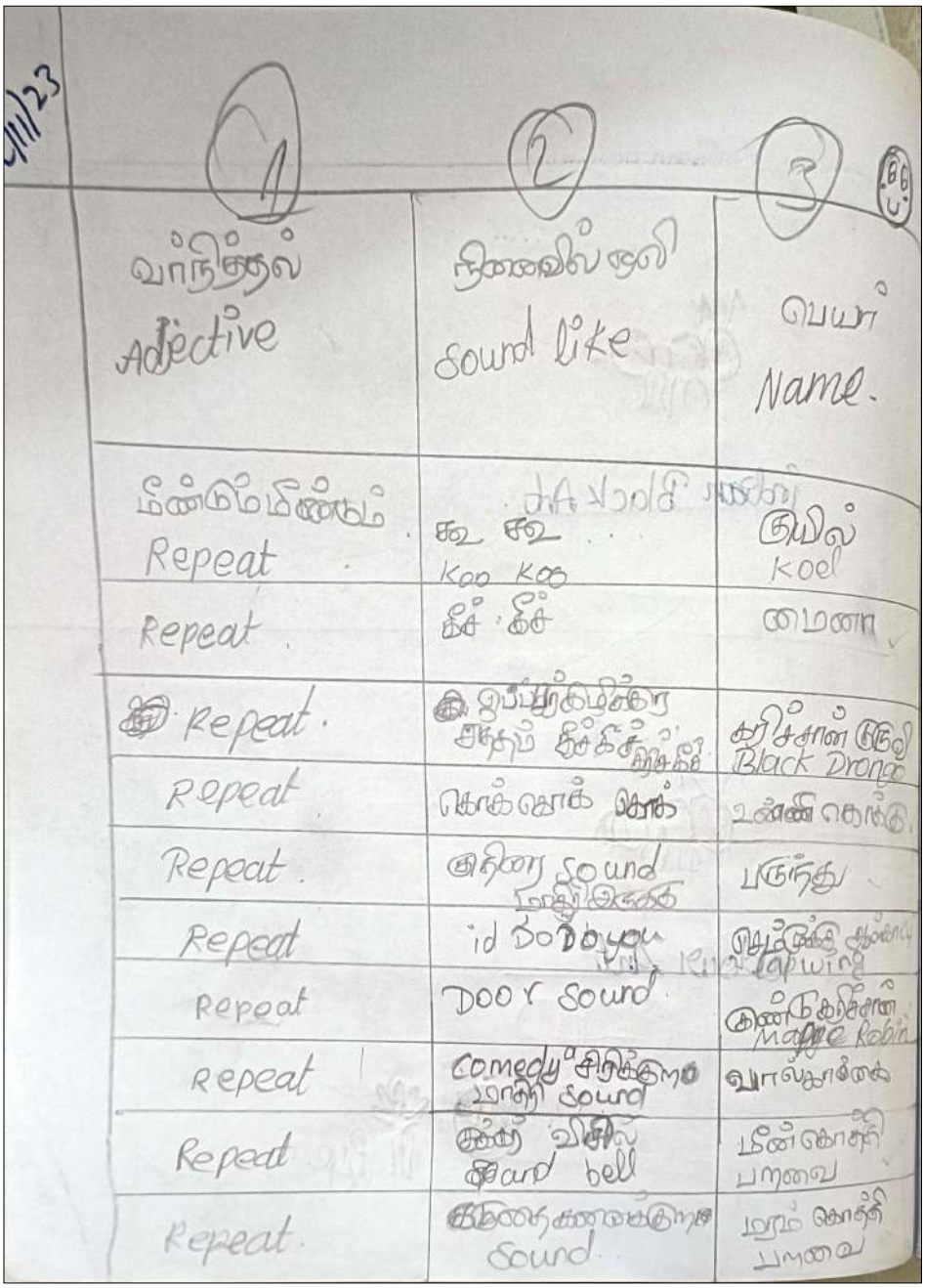


Image 7: Student's observation table of bird calls showing children describing different bird calls by relating to something they have previously heard for example Black-rumped Flameback sounds like a bus conductor's whistling sound.

Frog Calls of Chennai

Indoor Session

Materials/Tools Used: Common Frogs of Chennai Poster, visual aids, Bluetooth speaker, headphones, and journals.

This activity is similar to the bird calls activity. The students were introduced to Chennai's common frog calls for this session. We chose a repetition of the activity but a different species to acquaint the students with the sense of hearing and since it was the monsoon season, students could listen to these calls easily too. About 8-10 local species of frogs such as Jerdon's Bullfrog, Asian Common Toad, and Indian Cricket Frog were introduced to the students and their pre-recorded calls were played. Students were able to identify the frog calls by filling in the observation table having adjectives, "Words I hear" or "sounds like", and the name of the frog. Frog stories using visual aids such as a poster of the life cycle of a frog and images of tree frog's egg sacs were also shared to grasp students' attention.

Image 8: Educator explaining the different frog calls during the Frog Calls session at Chennai Urdu High School

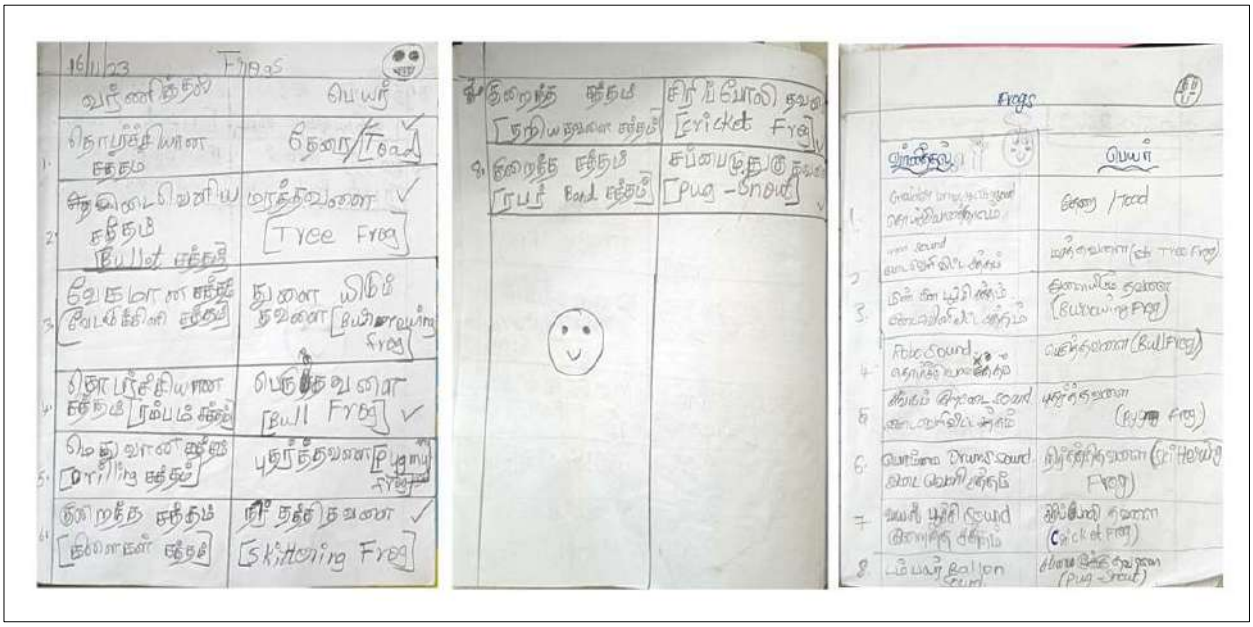


Image9: Pages from the student journals showing the frog observation tables

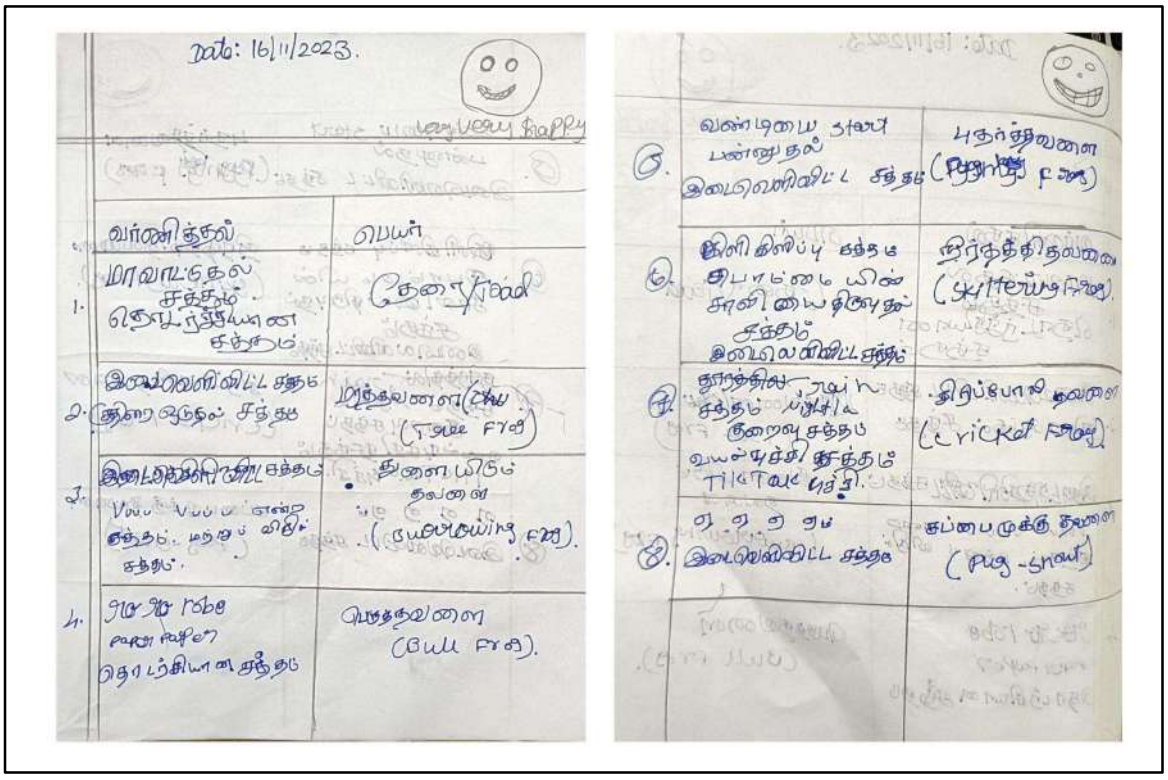


Image 10: Student's Frog Calls Observation table showing children describing different frog calls by using different parameters of sound like loudness, pitch, musicality etc.

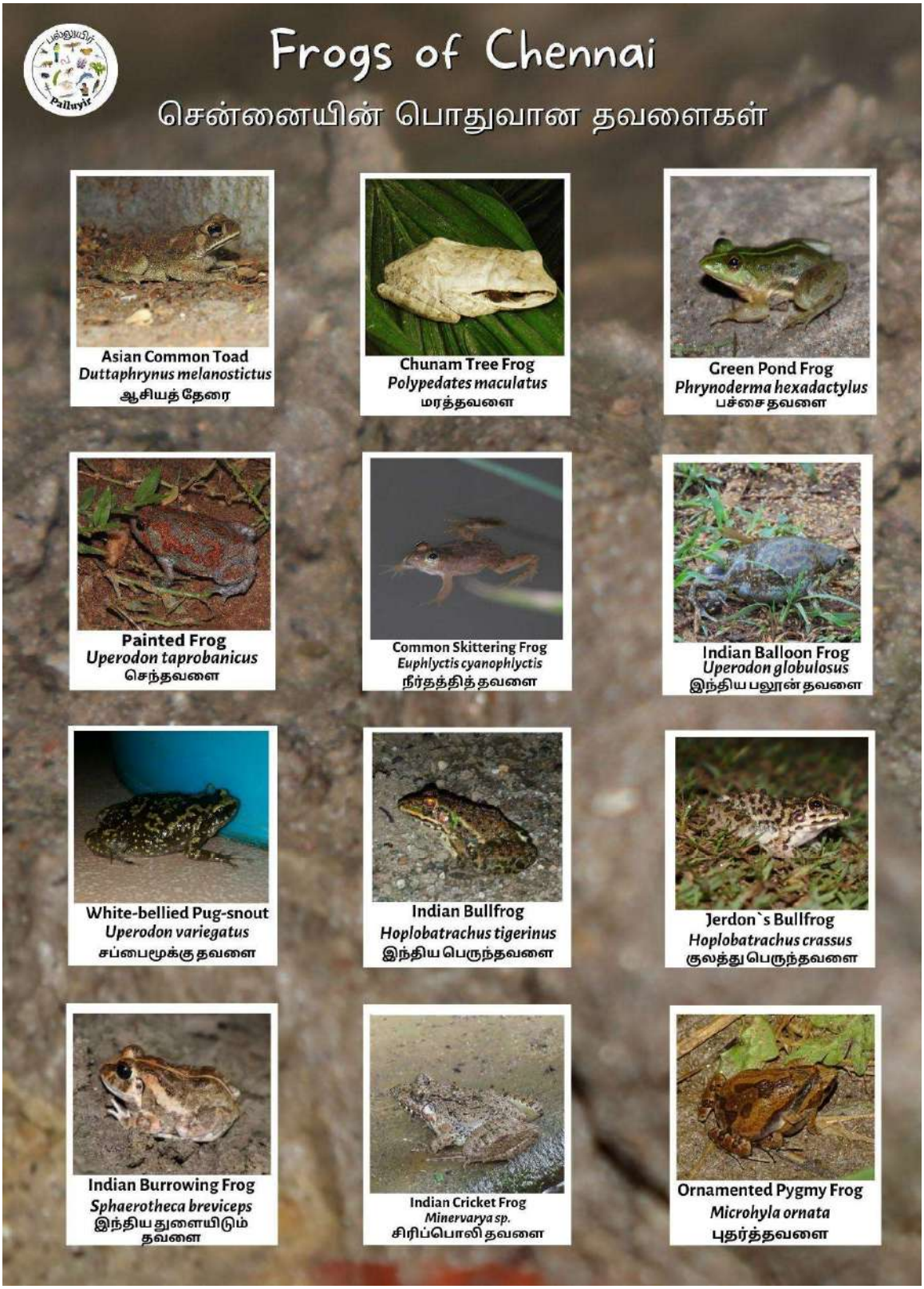


Image 11: Frogs of Chennai poster created for the Frog Calls session

Nature Journaling/Drawing Butterflies

Indoor Session

Materials/Tools Used: Common Butterflies of Chennai Field Guide, art supplies and A4 sheets

Students were previously introduced to simple nature journaling techniques. This session has a level of advancement which helps to increase students' observational skills and journaling techniques (sketching and colouring). Students were taught to sketch a common butterfly seen around them (Peacock Pansy) with four basic steps viz. 1. guiding lines 2. guiding shapes 3. broad details, and 4. fine details. Students were also introduced to a few simple colouring techniques. While the students were sketching, we shared a few facts and stories about butterflies such as their flight pattern, behaviour, and colouration to engage students and draw more attention to the activity.

Image 12: Students sketching Peacock Pansy during the Nature Journaling Session at CMS Gandhigramam

Image 13: A finished sketch of Peacock Pansy from a student's Nature Journaling activity

Insights from students' journals

As a part of the programme, we have been using journals that are used by each student we interact with. These journals are used by the students to add their responses and to add written notes and drawings. These journals not only function as a valuable tool to gauge the development of each student and to evaluate their responses but also hold evidence of children's intrinsic motivation to learn language. For example, children learned and recorded new ways of describing sounds. You can see the efforts taken by them to describe the sound- does it sound like a car, or like a whistle? which in a way also reflects their listening skills or the lack of it. For example, one child would describe the sound differently, whereas another would miss it. At the same time, the journals become a space to practice fundamental writing skills. At times when students were not able to write something, they would seek help to learn spellings and sentence structures from peers as well as us educators.

Concluding remarks and broad outcomes

A clear outcome and direction that came from the programme was that observation of local nature created a strong motivation to learn and in general be curious in most children. Specifically, these motivations could be seen towards language learning and scientific concepts, but also towards other people's perceptions, group work, new ideas, and ways of seeing. This seemed to be connected to the diversity of relevant and meaningful stories and stimuli nature can offer, and multiple learners/ways of learning it supports simultaneously. It also can provide very rich 'language nutrition' and intellectual/cognitive stimuli more than what they usually receive in their learning contexts.

In the material we distributed, the students had something to take back home such as knowledge and familiarity with bird calls, frog life cycles and calls, names, and characteristics of different ants. Through all of these main activities conducted in the second term, we saw clear evidence of improvement in the drawing skills, listening skills, and writing skills of students. Challenges to this pedagogy included crafting an effective way of integrating it with the existing schooling system, and the children's existing socio-political landscape. More specific observations elaborating on this follow in the coming sections. Additionally, throughout this programme, the parks and school campuses were used as local-nature learning spaces.

Image 14: Interpretation of Peacock Pansy, a butterfly species, as drawn by students

Midline Feedback Survey

As we entered almost the middle of the span of the year's programme, we decided to conduct a midline feedback survey to analyse the students' level of engagement, and what they liked or did not like about particular activities carried out so far in the first and second term. This survey not only helped us identify some popular activities among students but also to understand what they would like to do in the future and the level of their involvement. The survey was a short set of six questions, some of which were open-ended and some were multiple-choice (Annexure I). The structure of the questionnaire was explained to them and the students filled in their responses in the presence of educators whom they could approach if they had any doubts. Later, the sheets were collected, and the data was entered or organised, translated into English, and analysed using basic exploratory methods.

Image 15: Facilitator explaining how to fill in the feedback survey at Chennai High School, Old Washermanpet

The survey started with a fun and simple question- what was their favourite animal, plant, or insect? The responses show that many students cited ants and frogs as well as trees about which they had learned during the activities conducted under the programme such as the Velvet Sugar Ant and Ashoka Tree. The word cloud below showcases the vast variety of species they mentioned. Many students chose butterflies as their favourite, the other commonly chosen group being trees and plants. The students also seemed to prefer animals and plants that were familiar to them and often domesticated such as dogs and cats. Some students were very specific about

certain things that they like such as “a butterfly that has different colours in light and darkness” or a “tree with a worn-out bark”.

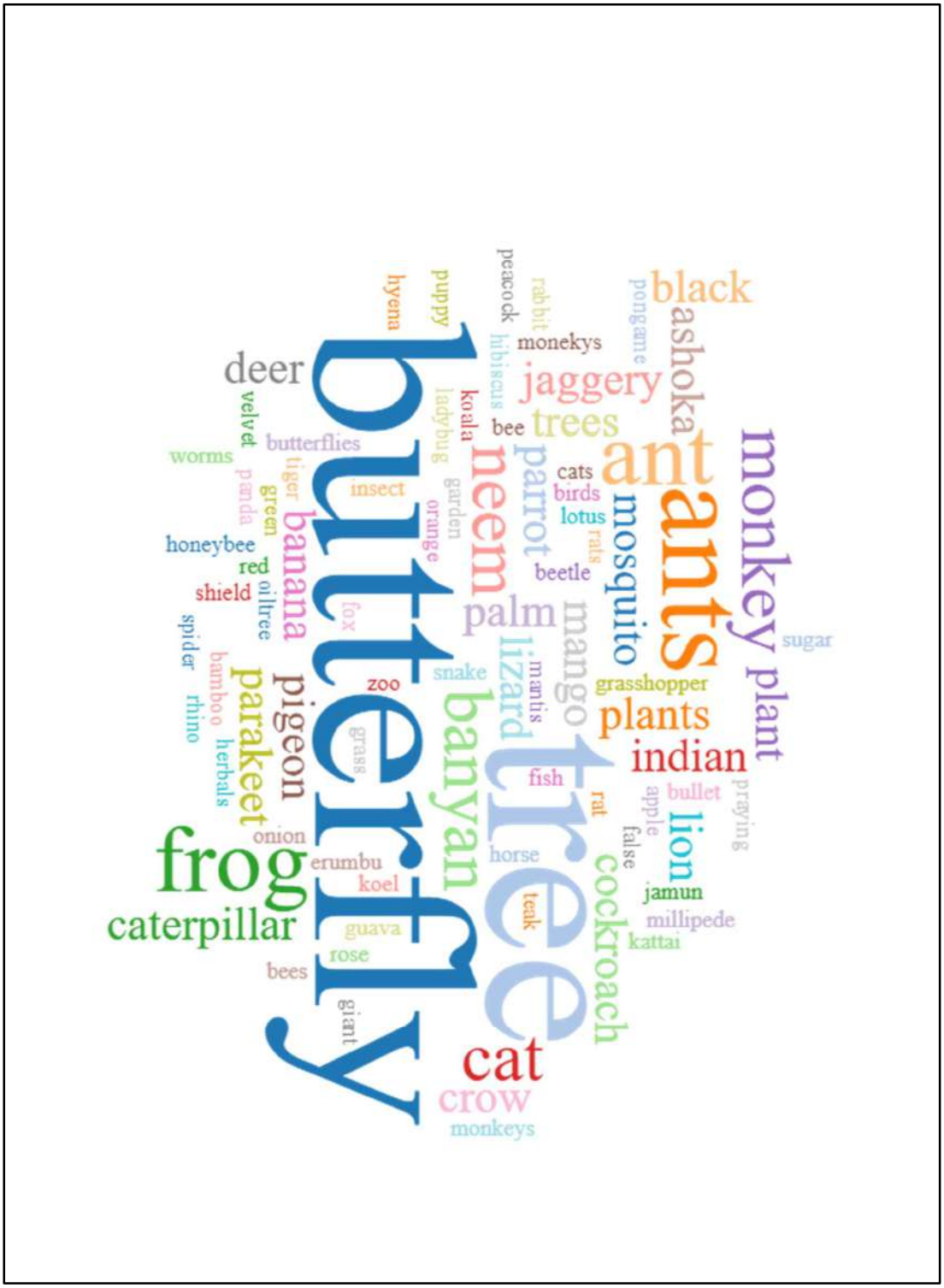
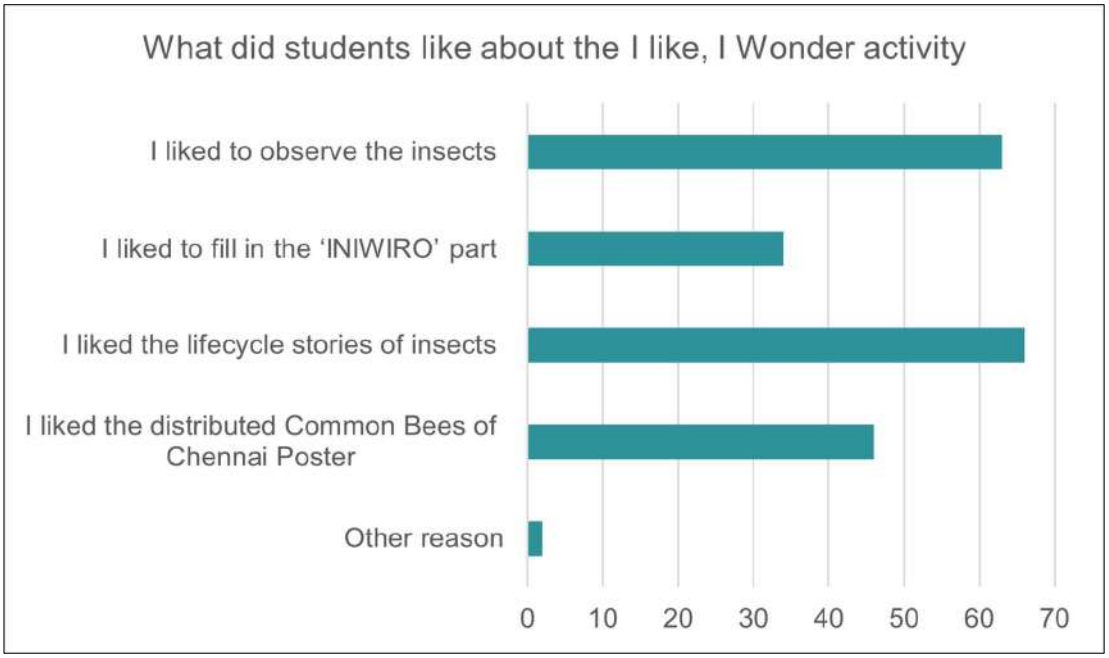
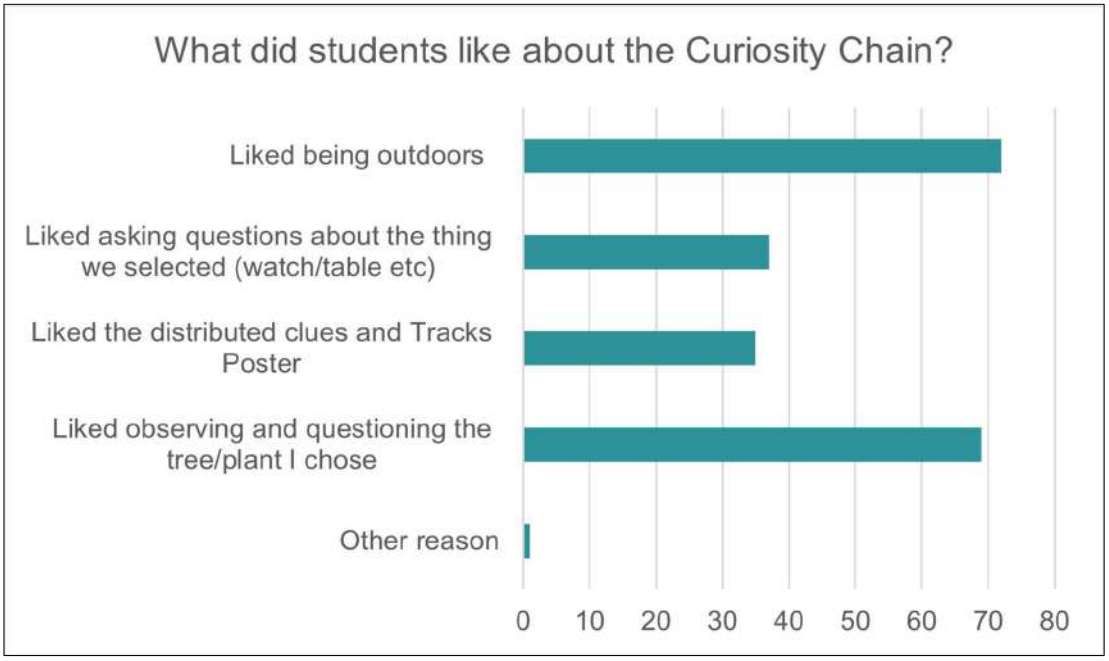
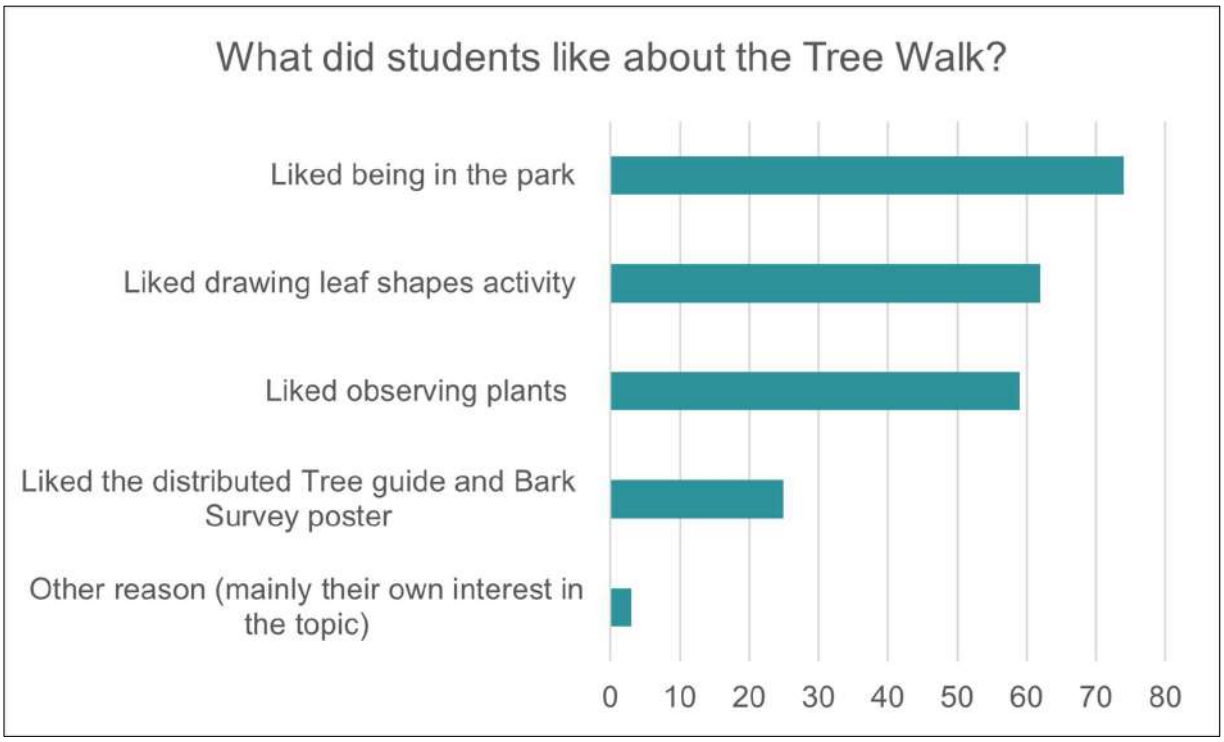


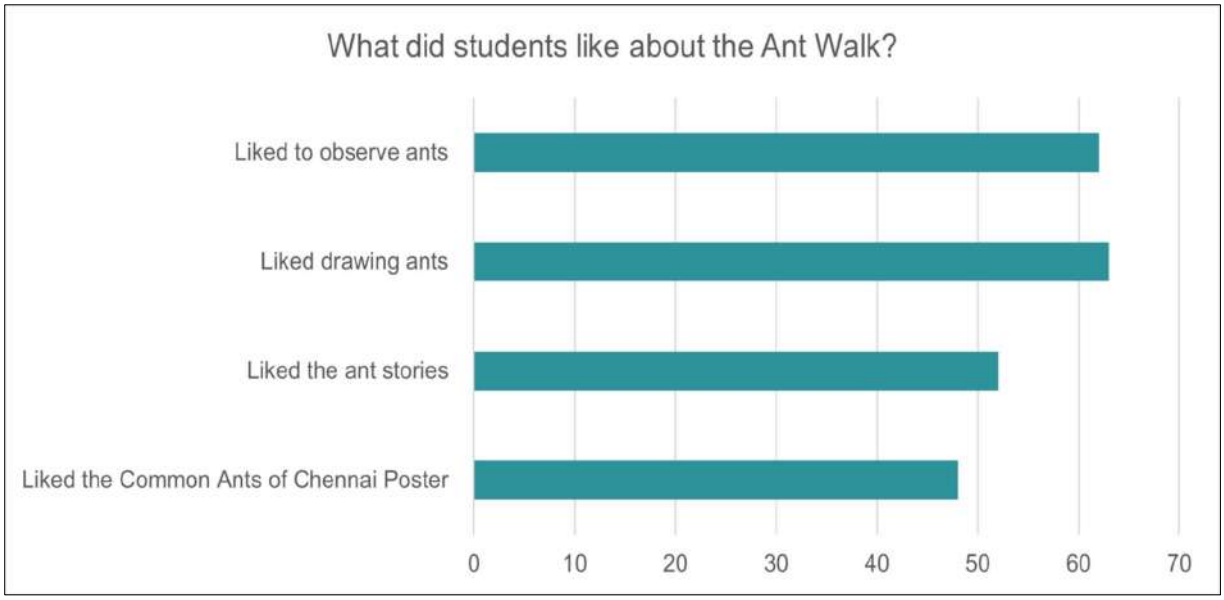
Image 16: Word cloud of students’ responses about their favourite animal, plant, or insect

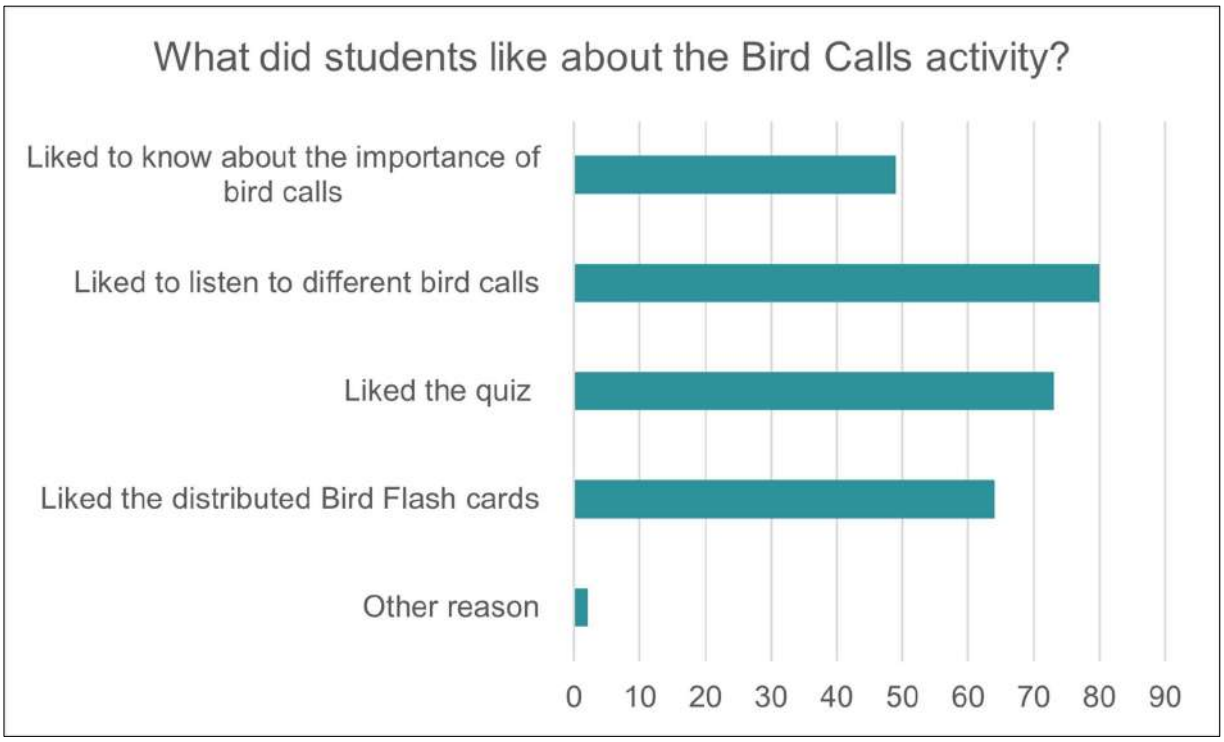
The responses about what they liked about all the sessions conducted so far with them (first term and second term) are depicted in the graphs below. It is evident from the data, that students liked activities that were focused on observation or experiencing things, and simply being in the space of the park was very important too. In both the Bird Calls and Frog Calls activities, getting to listen to different sounds was most liked by the students.

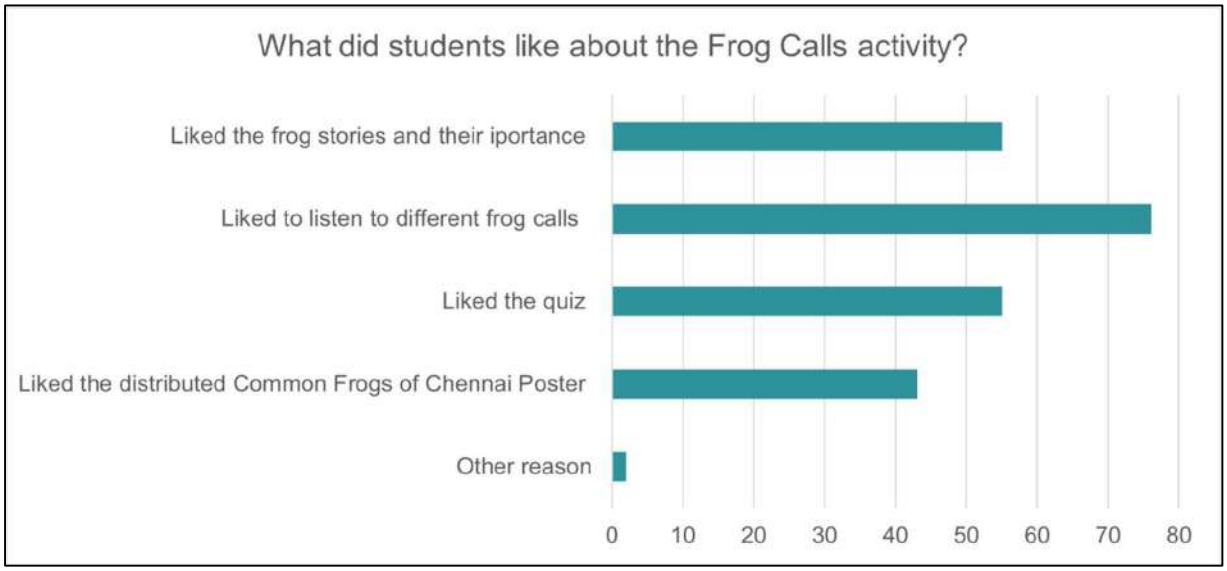





What did students like about the Tree Walk?
Liked being in the park
Liked drawing leaf shapes activity
Liked observing plants
Liked the distributed Tree guide and Bark Survey poster
Other reason (mainly their own interest in the topic)
0
10
20
30
40
50
60
70
80

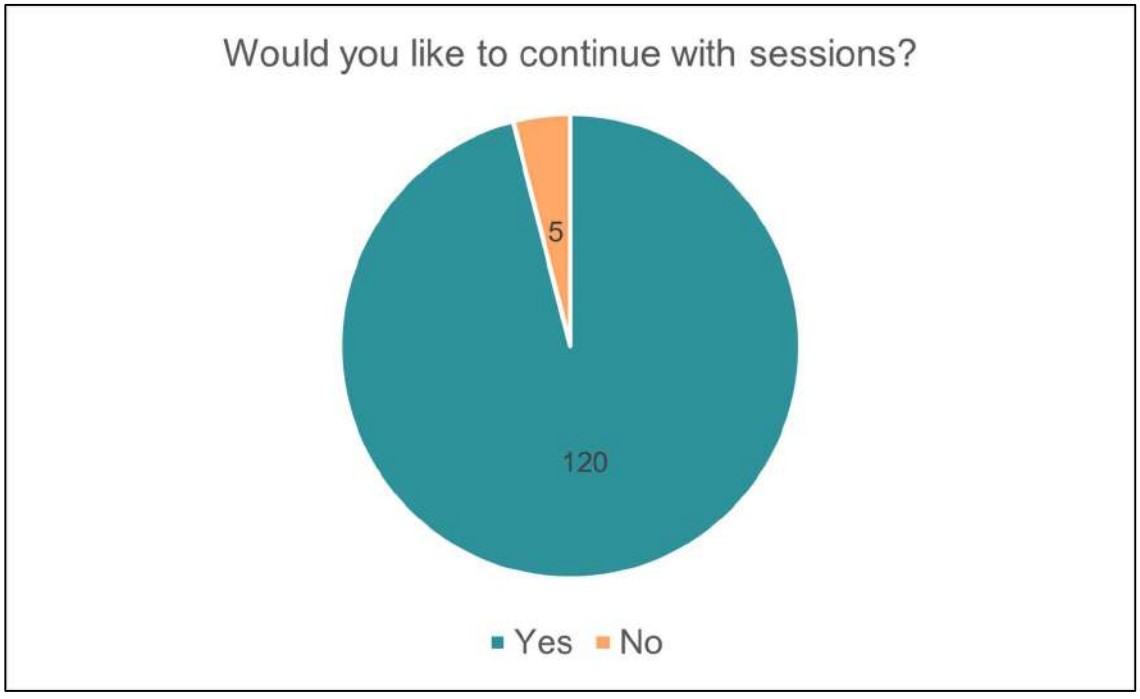

What did students like about the Ant Walk?
Liked to observe ants
Liked drawing ants
Liked the ant stories
Liked the Common Ants of Chennai Poster
0
10
20
30
40
50
60
70

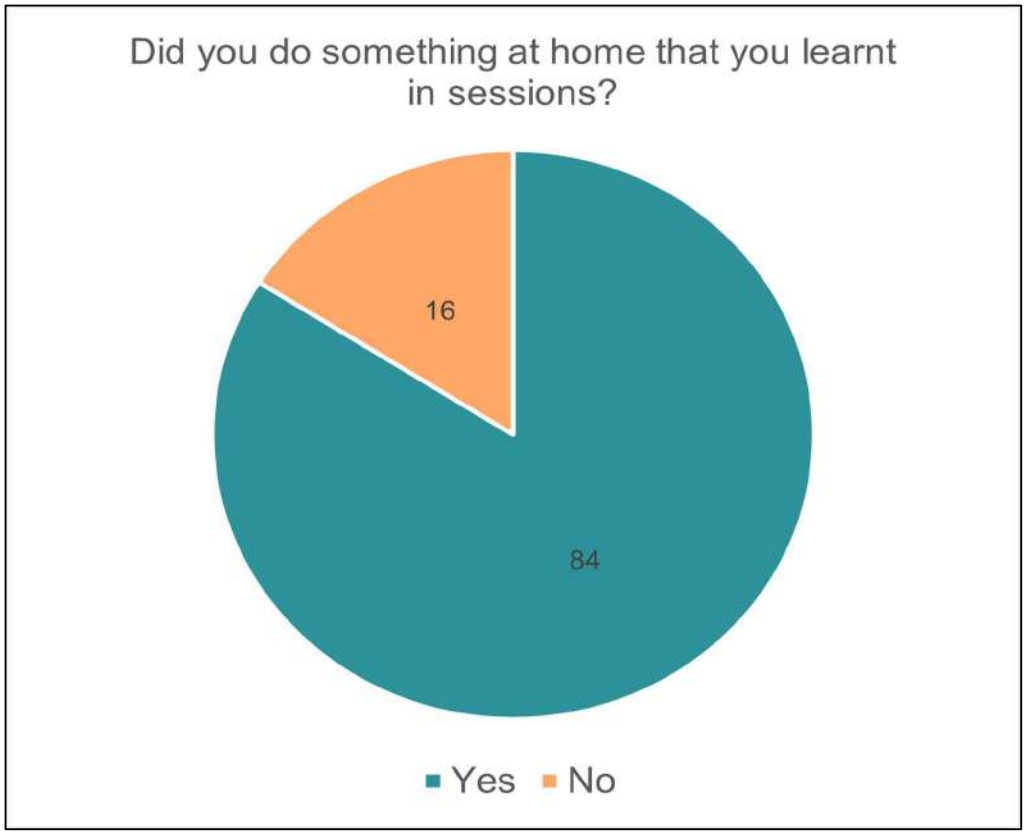

What did students like about the Bird Calls activity?
Liked to know about the importance of bird calls
Liked to listen to different bird calls
Liked the quiz
Liked the distributed Bird Flash cards
Other reason
0
10
20
30
40
50
60
70
80
90

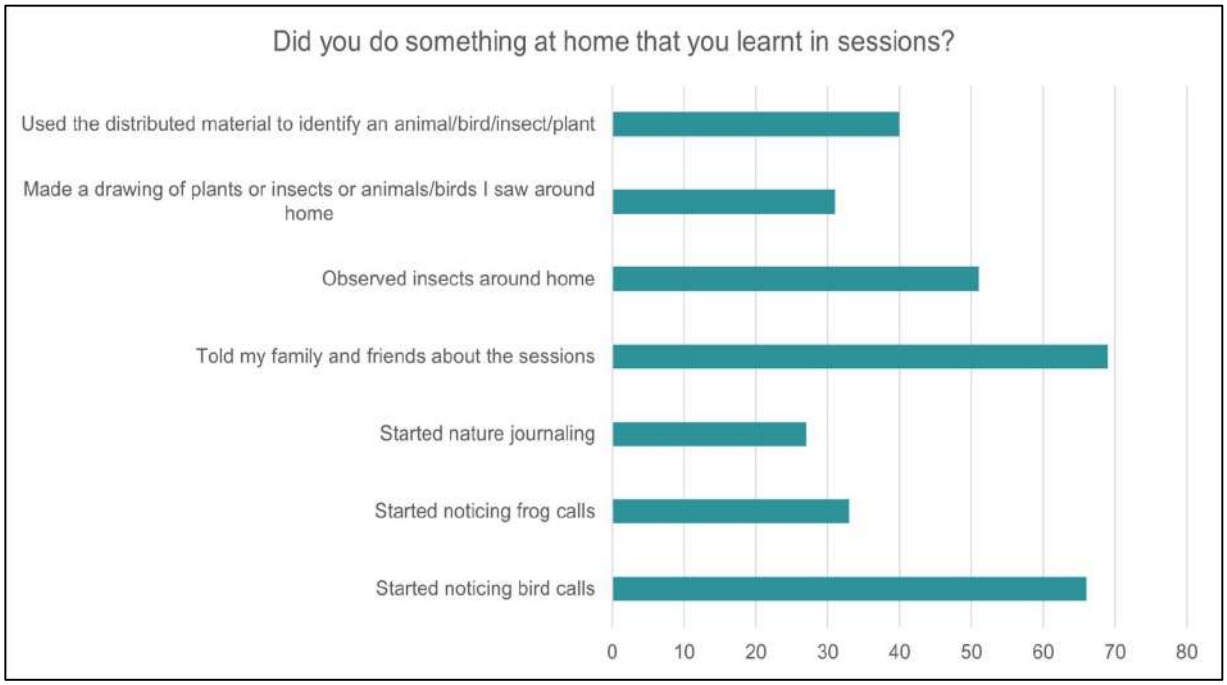

What did students like about the Frog Calls activity?
Liked the frog stories and their iportance
Liked to listen to different frog calls
Liked the quiz
Liked the distributed Common Frogs of Chennai Poster
Other reason
0
10
20
30
40
50
60
70
80

To receive critical feedback from the students, we also asked them what they did not like about these sessions. Many students responded to this question by saying that they did not like the writing part of the activities. This was the second most common response after the reason that the activities overlapped with their free time or break or PT classes. This information also helps us to triangulate with our other data from observations made by educators that are described further in a separate section in this report. The results of the midline feedback survey will also help us design future activities. The most motivating finding was that very few students said that the reason for them not liking sessions was because they were bored or disinterested. The majority of the students said that they would like to continue with the sessions.

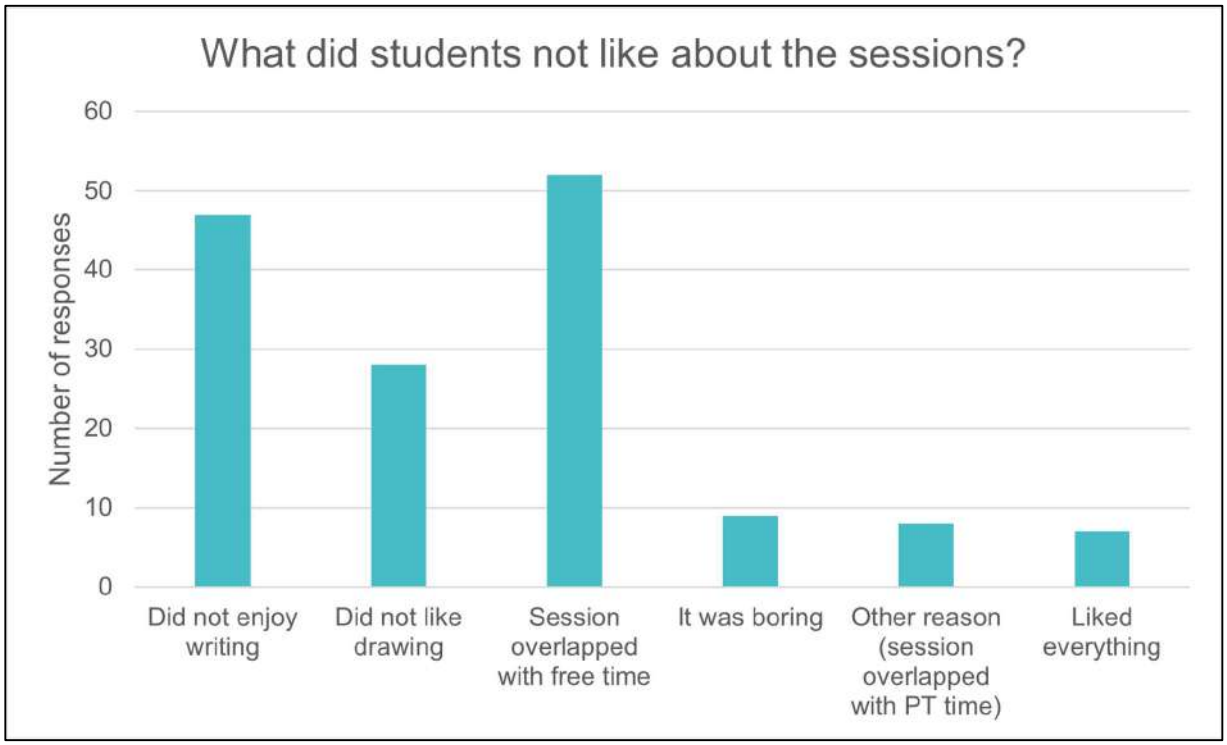
Going beyond what they do with educators in schools and parks, many students also did things at home that they had learned during the activities. The most selected responses about what they took home were that they started listening to bird calls and that they told their friends and family about the experiences they had during the activities. The least selected response was that they started nature journaling at home. Given that the tool is newly introduced and requires skills such as writing and drawing, it is not surprising that this is something that they have not done at home as much as some of the other activities.




Did you do something at home that you learnt in sessions?
16
84
Yes
No


Did you do something at home that you learnt in sessions?
Used the distributed material to identify an animal/bird/insect/plant
Made a drawing of plants or insects or animals/birds I saw around home
Observed insects around home
Told my family and friends about the sessions
Started nature journaling
Started noticing frog calls
Started noticing bird calls
0
10
20
30
40
50
60
70
80

Moreover, the questions about what they would like us to do in the future show their level of interest and involvement in these activities (Table 2). Many students reported that they would like the sessions to be longer but some also wanted a break in between. Many students also said that they would like to go on a trip to the jungle or other places outside. Some wanted the sessions the include more about seashore and marine animals, and some, flowers. Some of the responses showed how much the students have started valuing these activities. For example, one student says, “I like to teach whatever I learned in these sessions to school students in the future” and another says that programme could be made into a subject. As planned earlier, towards the end of the programme, we would be conducting another round of the baseline survey which would also help us get a clearer idea of the outcomes of the porgramme by comparing pre and post-programme changes in students.



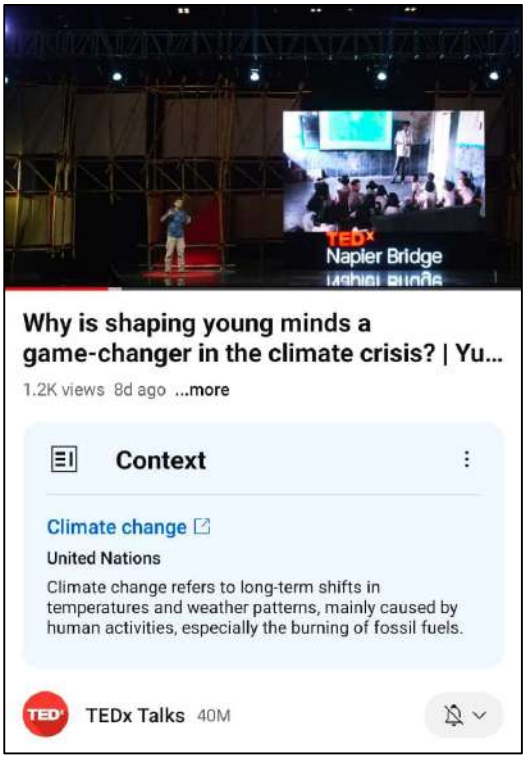
What would students like to be done in the future?	
“It would be good if you took us for a tour” “Take us to places where wild animals live. Take us to bird sanctuaries/ places where birds live. Take this class at least twice or thrice a week” “To make this a subject?” “Extend the duration of sessions” “Give us a water break” “It would have been great if we had one insect sound activity” “I want all the students to get this experience, and I would like to visit different places and spend more time”	“Many activities, more details, much interesting news about this, learned about many topics” “About sea, dolphin, shark and whale” “Animal protection welfare” “I would try to create awareness on cutting down trees” “Tell us more about flowers” “To know about soil” “I like to teach whatever I learned in these sessions to school students in the future”

Table 2: Students responses to what they would like to do in the future with the programme

Our Work in Media

1. [Corporation school students engaged in nature-based learning in public parks - The Hindu]

2. [Why is shaping young minds a game-changer in the climate crisis? | Yuvan Aves | TEDxNapierBridge (youtube.com)]



Educators' Observations

From the initiation of the Local Nature-based Learning Programme, the educators have been regularly recording their observations of the students and their response to activities conducted. These notes are made at the end of each session and in addition to being descriptive, they are also reflective in terms of factors related to students' responses to activities, the usefulness of the activities and materials, and any challenges. These observation notes were analysed using codes, such as interpersonal skills and curiosity and wonder, that initially emerged out of the pedagogy and expected outcomes of the programme. More codes were added as certain patterns emerged from the observations, such as reading and writing skills and gender-based differences in response to activities. Following is the list of codes formed by the second term and their brief description.

Code Number	**Code**	**Brief description**
Code 1	Interpersonal Skills	Instances of students exhibiting social skills, teamwork, or the lack of it.
Code 2	Curiosity and Wonder	When were students curious, when and how did they show wonder
Code 3	Independence	Independent thinking and engagement in activities
Code 4	Critical Thinking	When and how did students show evidence of critical thinking
Code 5	Nature Connectedness	Observations that show how and when students feel connected to nature
Code 6	Bullying and teasing	Instances of bullying and teasing and of fear during the sessions
Code 7	Engagement with resource material and educators	The ability to comprehend the information provided to students differed across different individuals based on the situation as well as the activity involved.
Code 8	Reading/writing skills	Observations related to students' capacity to read and write, to comprehend and express
Code 9	Gender	Observations that were related to students being boys or girls

Code 10	Use of tools in sessions	Objects like magnifying glass, speakers, etc- how did they lead to curiosity or not. Did it generate excitement? What were some challenges etc
Code 11	Teachers' involvement	Instances when teachers have shown an interest in the sessions and engaged with it and with educators
Code 12	Copying from others	Students copying answers from each other
Code 13	Art skills/drawing skills	Any observation related to art skills in terms of improvement or challenges and usefulness

Table 3: List of codes used for qualitative analysis of educators' observation notes

Analysis of the observations shows that in connection to **interpersonal skills**, although most students worked independently, they also helped one another out when needed. They work in teams but don't hesitate to reach out to the facilitators independently, sometimes even expressing their concerns about their classmates. Girls seem to exhibit interpersonal skills more by being interactive. For the Curiosity Chain activity, teachers and students helped each other to form a question. working in groups, and volunteering to help with the activities. When anyone was inquisitive, they would communicate with the educators and ask questions to know more. There were also incidents where students asked their peers if they had doubts or needed help. Even though there were incidents where students had misunderstandings with each other, they tried to solve it by themselves. There was one incident where students encouraged equal participation of all students in the class. Overall, most of the students were actively engaged, and they would interact and help each other out when needed while participating in the activities.

When it comes to **curiosity and wonder**, there were certain animal groups that seemed to generate more excitement and interest. Insects as a group seem to be connected to curiosity as being something that elicits wonder. Ants, moths, beetles, and butterflies garnered interest. For example, while sharing the ant stories, students came up with questions about the ant tournament. They asked if it was like a tennis singles match, meaning a duel. They also asked if other ants around would be cheering on as the other two fight.
Language was a barrier to expressing curiosity and wonder, but students tried to come up with terms or questions nonetheless. The curiosity chain and 'INIWIRO' activity helped students form questions and, in the process, add to their curiosity. The Frog Calls and Bird Calls activity was engaging, and the students grasped it well.

The sessions involving descriptive writing (ant walk, frog calls, and bird calls) were very engaging, and the kids came up with very imaginative and creative descriptions for them. They keenly observed the anatomical, visual, and behavioural patterns of ants and were able to describe them quite well. When nudged with a few questions, they were able to think and reason out things like why spiders choose certain spots to cast their webs (fractal dimensions). We observed that the children seem to have an innate **curiosity** to observe nature around them. In most ant walk/ frog call/ bird call sessions, the students were familiar with and right away were able to identify certain species from the posters we had distributed and also tell us stories about them (e.g. brood parasitism by the Asian Koel). They were excited to take and show us the tadpoles they spotted on the school grounds too. Certain students, when asked to pick team names for the quiz, they wanted to choose the frog's name from the poster. The children were familiar with many bird calls and were also able to mimic them very well. Some students said that they catch butterflies and thought it does not hurt the butterfly. Post the session, the kids seemed to have developed a certain love and connection for the things they observed, as they started watching without disturbing the species. When one student asked why the ants were biting him, his friend was quick to respond, asking if he would stay put when his house was being stamped on. We also observed another student, carrying a dead ant, saying he was going to go bury his friend. A lot of students approached us post-session or in the next session to tell us that they used the posters or were able to identify and observe what they learned in the previous sessions.

Engagement with resource material and educators reflected in gradual improvement in the use of resource material and instances that motivated students to pursue their interests by engaging with the material and educators, even after the sessions were conducted. Most of the students were able to use the materials provided well after orientation. The quiz conducted during the “sound mapping” session served as a reliable indicator of the student's understanding of the ideas presented. Even during the outdoor sessions, some students referred to their guides and posters. A couple of difficulties were faced by students in going through it initially. As their understanding of the session and usage of the materials improved, it also reflected in their performance.

The significance of **writing in the learning process** is evident, as students could connect with the notes they took during the sessions and relate to the calls. Some found difficulty with spelling in both Tamil and English, prompting some to seek correct spellings and sentence structures. Nature observation was able to create an innate interest in most children for language acquisition. Some students struggled with articulation, taking time to form proper questions or sentences. The conventional emphasis on '*thooya thamizh*' (pure Tamil) in the education system hindered them from expressing their thoughts, though a few managed to convey their thoughts in one or two words. Some were conscious about their handwriting and made their classmates write. While some opted for drawing over writing, which signifies diverse approaches to written expression.

Cyclone-related Challenges

Cyclone-related damage added to our challenges in this term. Due to heavy rains from the Northeast monsoon, several sessions got postponed during November, and due to the cyclone and flooding in December, our second-term sessions have been pushed into the third term. Rains impacted outdoor space usage, so we had planned bird calls and frog call identification and description sessions, which were done indoors. The cyclone also flooded Palluyir’s office space in Velachery, causing several lakhs worth of damage to electronics, furniture, stationery, and printed materials meant for children. We have had to request funding from several entities to repurchase and reprint these materials and move our office to a less flood-prone area.
With help from the Rainmatter Foundation and some crowdfunding, we were able to move our office space and also replace all the damaged and lost materials. The journals of students from

three schools, however, were submerged and irretrievable. For these schools, we are using worksheets which are distributed and collected back from children during the sessions.

Future Steps

We wish to continue this programme and study with schools in the future to deepen our understanding of the scope of nature-based learning (NBL) in school education. Based on a teacher training workshop we conducted on NBL last year for GCC teachers from 45 schools, we observed that most science and mathematics teachers are keen on integrating nature-based learning into their teaching practice. To support this, we would like also to begin a teacher-training/interaction programme on a fortnightly or monthly basis where we conduct sessions with teachers around NBL and also ideate and discuss with them how to implement it for their students. Several GCC schools also have active eco clubs with enthusiastic teachers and students keen on furthering its purpose. Towards this, we would also like to support active eco clubs in GCC schools through resource materials and activities. Lastly, through this year's study, it has been clear that engagement with local nature is showing marked improvement in children's language skills and motivation to learn language. Therefore, with GCC's help, we would like to add an NBL component to the *Ennum Ezhuthum* policy for foundational literacy and numeracy started by the government. We believe this will add more momentum to the success of this policy.

We also plan to draft a detailed curriculum for teachers to help them implement NBL in a self-directed way for different classes aligned with different skills and academic objectives.
Lastly, the current study, if scientifically published, will also add credibility across the state and at the policy level to adopt NBL for well-being of all children.

Annexure I

Midline Feedback Survey Questionnaire

Name:
Class/Standard:
School:
Date:

1. What's your favorite animal or plant or insect that you have seen recently?

2. Which session did you like the most? (can select multiple) (MCQ) and why? (MCQ) (select from options below)

Tree walk
a) I liked observing plants
b) I liked drawing leaf shapes activity
c) I liked being in the park
d) I liked the distributed Tree guide and Bark Survey poster
e) Other reason_____

Curiosity Chain
a) I liked asking questions about the thing we selected (watch/table etc)
b) I liked being outdoors
c) I liked observing and questioning the tree/plant I chose
d) I liked the distributed clues and Tracks Poster
e) Other reason _____

I notice, I wonder, it reminds me of
a) I liked to observe the insects
b) I liked to fill in the 'INIWIRO' part
c) I liked the lifecycle stories of insects

d) I liked the distributed Common bees of Chennai Poster

e) Other reason _____

Ant walk

a) I liked to observe ants

b) I liked drawing ants

c) I liked the ant stories

d) I liked the Common Ants of Chennai Poster

e) Other reason _____

Bird Calls

a) I liked to know about the importance of bird calls

b) I liked to listen to different bird calls

c) I liked the quiz

d) I liked the distributed Bird Flash cards

e) Other reason _____

Frog Calls

a) I liked the Frog stories and Importance

b) I liked to listen to different frog calls

c) I liked the quiz

d) I liked the distributed Common Frogs of Chennai Poster

e) Other reason _____

3. What did you not like about the sessions? (MCQ)

a) I did not enjoy the writing part
b) I did not enjoy the drawing activity
c) Session extended the school time or overlapped with free time
d) It was boring
e) Other reason_____

4. Did you do anything that you learned in sessions back at home? Yes/No What was it?-

a) Started noticing bird calls
b) Started noticing frog calls

c) Started nature journaling
d) Told my family and friends about the sessions
e) Observed insects around home
f) Made a drawing of plants or insects or animals/birds I saw around home
g) Used the distributed material to identify an animal/bird/insect/plant

5. Would you like to continue having these activities? Yes/No.

6. What would you like the sessions to have in the future?

பெயர்:
வகுப்பு:

பள்ளி:
தேதி:

1. சமீபத்தில் நீங்கள் பார்த்த, உங்களுக்கு பிடித்த விலங்கு அல்லது தாவரம் அல்லது பூச்சி எது?

2. எந்த நிகழ்வை நீங்கள் மிகவும் விரும்பினீர்கள்? ஏன்? (பல தேர்ந்தெடுக்கலாம்)

நம்மை சுற்றியுள்ள மரங்கள்

அ) நான் தாவரங்களை கவனித்தலை விரும்பினேன்
ஆ) இலை வடிவங்கள் வரையும் செயல்பாடு எனக்கு மிகவும் பிடித்திருந்தது
இ) நான் பூங்காவில் இருப்பதை விரும்பினேன்
ஈ) வழங்கப்பட்ட மர கையேடு மற்றும் பட்டைகளிலே தேடிப்பார் போஸ்டர் மிகவும் பிடித்திருந்தது
உ) வேறு காரணம்_____

கேள்வி சங்கிலி

அ) கடிகாரத்தைப் பற்றிய கேள்விகளைக் கேட்பது எனக்குப் பிடித்திருந்தது

ஆ) எங்களை வெளியில் அழைத்துச் சென்றது எனக்குப் பிடித்திருந்தது

இ) நான் தேர்ந்தெடுத்த மரம்/செடியை கவனித்து கேள்வி கேட்பது எனக்கு பிடித்திருந்தது

ஈ) வழங்கப்பட்ட குறிப்புகள் மற்றும் தடயங்கள் போஸ்டர் மிகவும் பிடித்திருந்தது

உ) வேறு காரணம்_____

நான் கவனித்தேன், நான் ஆச்சரியப்படுகிறேன், இது எனக்கு நினைவூட்டுகிறது

அ) நான் பூச்சிகளைக் கவனித்தலை விரும்பினேன்

ஆ) 'INIWIRO' பகுதியை நிரப்புவது பிடித்திருந்தது

இ) பூச்சிகளின் வாழ்க்கை சுழற்சி பற்றிய கதைகள் எனக்கு பிடித்திருந்தது

ஈ) வழங்கப்பட்ட சென்னையின் பொதுவான தேனீக்கள் போஸ்டர் மிகவும் பிடித்திருந்தது

உ) வேறு காரணம்_____

எறும்புகள்

அ) எனக்கு எறும்புகளை கவனித்தல் பிடித்திருந்தது

ஆ) எறும்புகளை வரைவது எனக்கு பிடித்திருந்தது

இ) எறும்பு கதைகள் எனக்கு பிடித்திருந்தது

ஈ) சென்னையின் பொதுவான எறும்புகள் போஸ்டர் எனக்கு பிடித்திருந்தது

உ)வேறு காரணம் _____

பறவை ஒலிகள்

அ) பறவை அழைப்புகளின் முக்கியத்துவம் பற்றிய தகவல்கள் பிடித்திருந்தது

ஆ) வெவ்வேறு பறவைகளின் சத்தங்களைக் கேட்பது எனக்கு பிடித்திருந்தது

இ) எனக்கு வினாடி வினா பிடித்திருந்தது

ஈ) வழங்கப்பட்ட பறவை அட்டைகள் எனக்கு பிடித்திருந்தது

உ) வேறு காரணம்_____

தவளை ஒலிகள்

அ) தவளை பற்றிய கதைகளும் முக்கியத்துவமும் எனக்கு பிடித்திருந்தது

ஆ) வெவ்வேறு தவளை அழைப்புகளைக் கேட்க பிடித்திருந்தது

இ) எனக்கு வினாடி வினா பிடித்திருந்தது

ஈ) வழங்கப்பட்ட சென்னையின் பொதுவான தவளைகள் போஸ்டர் எனக்கு பிடித்திருந்தது

உ) வேறு காரணம்_____

3. நிகழ்வுகளில் உங்களுக்கு பிடிக்காதது எது?(பல தேர்ந்தெடுக்கலாம்)

அ) எழுதும் பகுதி எனக்கு பிடிக்கவில்லை

ஆ) வரையும் பகுதி எனக்கு பிடிக்கவில்லை

இ) நிகழ்வு பள்ளி நேரத்தை நீட்டித்தது அல்லது பொழுதுபோக்கு நேரத்துடன் சேர்க்கப்பட்டது.

ஈ) சலிப்பாக இருந்தது

உ) வேறு காரணம்_____

4. நீங்கள் கற்றுக்கொண்டதை வீட்டில் செய்து பார்த்தீர்களா?

ஆம்/இல்லை என்ன அது ? -

அ) பறவைகளின் சத்தத்தை கவனிக்க ஆரம்பித்தேன்

ஆ) தவளை அழைப்புகளை கவனிக்க ஆரம்பித்தேன்

இ) இயர்கையைப் பற்றி எழுத ஆரம்பித்தேன்

ஈ) இது பற்றி என் குடும்பத்தினரிடமும் நண்பர்களிடமும் சொன்னேன்

உ) வீட்டைச் சுற்றியுள்ள பூச்சிகளைக் கவனித்தேன்

ஊ) வீட்டைச் சுற்றி பார்த்த தாவரங்கள் அல்லது பூச்சிகள் அல்லது விலங்குகள்/பறவைகளை வரைந்தேன்

எ) கொடுக்கப்பட்ட கையேடுகளை விலங்கு / பறவை / பூச்சி / தாவரத்தை அடையாளம் காண பயன்படுத்தினேன்

5. இந்தச் செயல்பாடுகளைத் தொடர விரும்புகிறீர்களா? ஆம்/இல்லை

6. எதிர்காலத்தில் இந்த நிகழ்வில் என்ன இடம்பெற வேண்டும் என்று விரும்புகிறீர்கள்?

Local Nature-based Learning Programme

SECOND TERM REPORT

TIMELINE: November 2023 - January 2024

In partnership Greater Chennai Corporation, the program will run in 5 government schools.

- 4 Months - 24 Sessions
- 5 Government Schools : Grade 8
- 1.5 Hours each
- 11 Nature Educators

Robinson Park
- Chennai High School, Old washermanpet — 27
- Chennai Urdu High School — 41

Independence Day Park
- Chennai Girls Higher Secondary School, Nungambakkam — 42
- Chennai Boys Higher Secondary School, Nungambakkam — 15

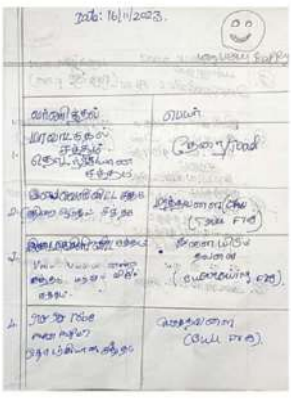
Corporation Park, Beasant Nagar
- Chennai Middle School, Kalakshetra Colony — 22

OUR ACTIVITIES

1. Ant Walk - to acquaint the students with simple nature journaling techniques and increase their observation skills of ant species.
2. Bird Calls of Chennai- to increase students' listening skills, identify local bird calls, and improve language skills.
3. Frog Calls of Chennai - to increase students' listening skills, identify local frog calls and improve language skills.
4. Nature Journaling- to increase students' observational skills and journaling techniques (sketching and colouring).
5. Midline Feedback Survey- to analyse the students level of engagement, like and dislike part of all the sessions conducted.
6. Distribution of resource materials the students were provided complimentary guides and posters to inculcate the habit of observing the environment and local ecology like Common Ants of Chennai, NCF Bird Flash Cards, Art Supplies etc.

HIGHLIGHTS

- Children's motivation to learn especially language and scientific concepts steeply increased.
- In all schools, children requested more sessions or weekly sessions.
- During the activity, children's observation, listening and journaling skills could be seen distinctly improving, as is noticeable in their journals and art sheets.



- Students could undertake critical thinking and nature observation and connect it to scientific concepts.
- Parks and school campuses were used as local-nature learning spaces.

In the future, including a teachers' training programme and also support for eco-clubs would be beneficial for the efforts initiated by this project.

For more details about our work and copy of the full report contact: palluyirtrust@gmail.com