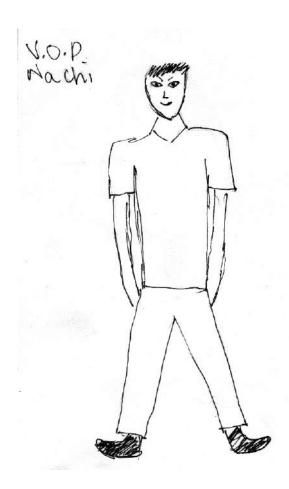


#### V.O.D

V.O.D started when Vibha gave one of us (Nachiket) the task of writing a detective story using three key words - a swimming pool, the Kohinoor diamond and a detective. Somewhere along the way, the other one of us (Sidharth G) joined in the writing of the story. Together, we decided that one of our main characters would be V.O.D, an evil detective. We decided that we would make him create something called the Elixir of youth and that is how we came up with the name V.O.D. It stands for Vanquisher of Death.

Interested? Read the first two chapters of V.O.D to find out more about him!

(After we came up with his name we started making dumb jokes like' V.O.D are you saying?', 'V.O.D are you talking about?')



Chapter 1

#### V.O.D

As V.O.D came back from another exhausting day of work he was thinking about himself. He had changed his name to Vanquisher of Death after he created the elixir of youth which made him younger and thus immortal unless he was killed. His alias was Victor Oliver Dickens. He was a famous detective but what nobody knew was that he had killed his parents at the age of 17 and he was evil. He created mysteries and solved them himself, blaming other for his crimes. In the beginning of his career he was actually doing good thing but later, as he gained people's trust he turned evil.

He stopped. He had reached his mansion. He was so rich he had many of them. He also had many fancy cars like a Rolls Royce and a Ferrari. As he stepped onto the doorstep he took his hand out of his pocket. There was an imprint of his palm on the door and when he placed his hand on it the iron door automatically swung open. There was also a separate key especially for his posse to open it. He stepped into his house and one of his men came forward, took his coat and asked him if he wanted anything to eat. V.O.D was very hungry so he told him to make a grilled cheese sandwich and a milkshake.

#### Chapter 2

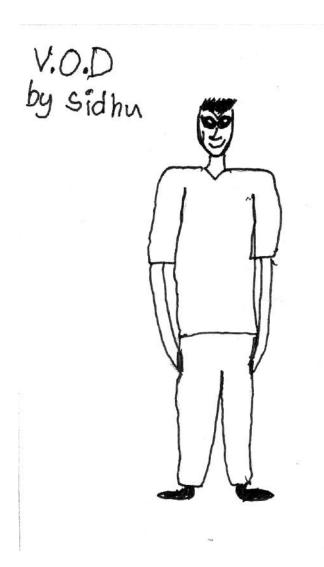
#### The Laal family

A few days later, far away in India, a boy called Roshan Laal was just getting up from a deep slumber. As he got up he looked around. It was half-past six in the morning. 'Good' he thought, not too late for jogging. He yawned, stretched and jumped down from the top of his bunk bed. Roshan's little sister Roshani was sleeping below. He got ready and was out of the door in ten minutes with shoes and warm clothes on.

It was cold outside. His hair whipped around his face as he ran. His home was situated in a large complex of houses in Bangalore. He ran seven rounds and after he was done it was half-past seven. He went back into his house and headed straight into the kitchen. He put a tava on the stove, and made himself a ghee roast dosa. Then he opened the fridge, took out some chutney and sambar and sat down to eat. After he was done, he packed his suitcase and got ready to go. Today was going to be his first day at college! He was staying at the hostel there.

Just then his mother (whom he called Amma) entered the room with Roshani. Roshan's mother was about 5'3" in height and had a large and therefore prominent nose she was neither too thin nor too fat. Her eyesight was not very good so she wore contact lenses the same colour as her eyes, black. Her name was Shanti. Shanti did not like fancy accessories and she wore simple clothes. Roshani was a lot like her.

"Are you ready?" asked Shanti. "Yes" said Roshan. "What time is Appa going to be back from work?"."He should be back in about 5-10 minutes" answered Shanti. Sure enough, after some time, the doorbell rang. Instead of his father, there was a spiky haired, slightly muscular, tall man with a narrow face standing at the doorstep. Roshan knew that face very well. Every time he entered his room he saw a picture of this man hanging on the wall. It was his hero Victor Oliver Dickens also known as V.O.D.



# **Spotted Mammals (all included)**

Sravanthi, Das, Vijaya aunty and my group, the Malhaars, were on our weekly walk and this time it was to a spot close to Shibumi. It was to a hill that some of us liked to call 'Tilted Earth'. This name originated from the fact that a large rock comprised the main body of the hill and this large rock had been quarried so much that it now resembled a flat piece of land that had lifted off the earth and stood at a sixty degree incline.

We were three fourths of the way up this hill and half of the group promptly sat down the moment we reached the edge of the large rock. They refused to go through the thicket that lay in front of us. The other half was still undecided on what to do next. One of the girls, Paawan, spotted a large tree growing on a boulder up ahead, and pointing it out to the rest of us, remarked 'how nice it would be to climb the tree''. After confirming with Das for safety, we, the undecided half, started making our way towards this large tree. Unfortunately, it was far off the main path and behind other trees and rocks. We took a long route because Das said there was a leopard on the hill and the rocky part might not be safe. No one really thought much about the leopard because there are footprints or feces of leopards that we come across during our walks along with that of elephants and wild boars but we had never seen any of them.

When we reached the top, we stopped to look around. A large expanse of flat rock with a few trees and boulders here and there lay in front of us. The edge of the thicket extended behind us on both sides. We turned right assuming that to be the direction to proceed towards the large tree. We climbed between two rocks, in single file, and came out to a slight drop in the rock. Beyond this rock was a grassy patch and beyond the grassy patch was the tree, its roots bordering the entrance to a cave! A hush came over everyone! Treading very softly, we decided to find a way to the tree.

Prakriti went down one side while Rukmini and I went down the other. The rest of the group waited on the rock. Very soon, Rukmini and I could only hear them. We were looking at the cave and talking when it happened: we heard a shuffling sound, and it felt like something was moving towards us. I stopped talking immediately and felt every part of my body go stiff. I looked at Rukmini. She was staring at the cave, her mouth half open and her knees slightly bent. She stared back at me and slowly we started walking backwards until we could see the group again at which point we turned and ran.

On hearing what had happened to us, the rest of the group quietly got up, called Prakriti back, and in the most relaxed manner possible we all proceeded to climb between the rocks. Once we were on the other side and felt safe, urgent whispers broke out.

"A leopard? You heard a leopard?"

"What's going to happen?"

"Could it have been a leopard?"

"Don't run! Let's walk back softly."

"Are you sure you heard anything?"

"I'm scared. Should we go back?"

"Yeah, maybe we should."



We hurried along, walking back to the place where we had first turned right. But then...w as it here or further ahead? Everyone stopped, looking at other, wondering whether this was the turning or maybe it was ahead. Halfway through that discussion, a few of us heard a tiny growl behind us. We began pushing forward, pretending that we weren't pushing and weren't scared. After a few such pushes and stops we stopped to listen. There was a loud grunt coming from very close by. But this time, we didn't move, instead, we looked at each other and someone started "Isn't that..." Suhaan, Nikhil and Das were coming up from behind the hill. They were laughing.

# My 'Art'icle

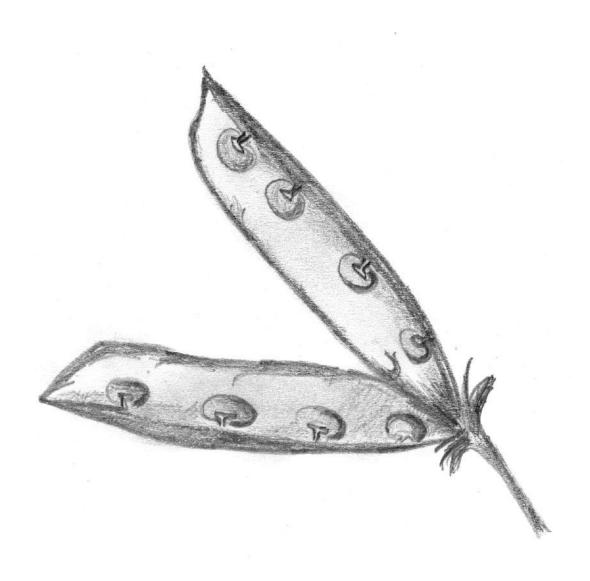
I have always loved art. I used to do a lot of art when I was in junior school but when I moved to senior school everybody was studying so I also felt like studying and I did not do art. Soon I realised that I was not doing art and I wanted to start it again, somehow. I talked to Tanu didi and she said she would be happy to help. So, we made plan whereby every Friday afternoon I would go to junior school space and work with her.

We started off with watercolours because all the equipment we needed was readily available. Then we moved onto painting landscapes with acrylic paint on canvas. The thing I like about painting landscapes is the vivid colours and the beauty of the landscape itself. From there we moved onto a painting technique called marbling. In this, you fill a cup with different layers of paint. On a blank canvas you overturn this cup. Now you move the canvas in such a way that the paint spreads unevenly, resembling marble. After that we did some weaving and origami.

I see art in many different things and not just in painting and drawing. Here is a small story. Once when I was working in the kitchen and was shelling peas. When I opened a pod I saw that all the peas were arranged in such a way that half of them were on the left side and half on the right. It looked like someone had come and arranged the peas in that order. I was fascinated by this.

Art is something I really enjoy, and I hope to do lots more things with it in the future!

- Aditi, 13 yrs



## **Under Construction**

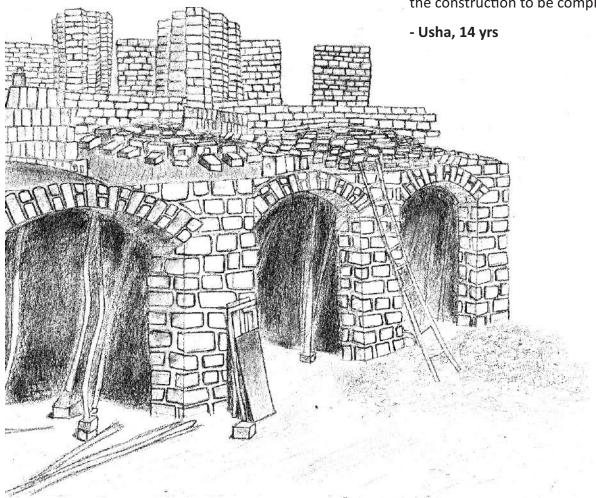
First there was an idea, Then came a plan, And then the first stone. Now it is nearly complete.

It all began with a single stone – a stone that was given a ritual, a poem, a song, and lots and lots of happiness, to set the foundation for something more.

Where there was once a very unremarkable piece of land, there are now structures, designed and labored over.

They've been coming alive before my eyes in these past few years, evoking so many thoughts and emotions in me.

There was happiness, apprehension, Disappointment, excitement, approval... Now, I just wait and wait for the construction to be completed.



# Oh! Brick, please stick

The buildings stare at me, And I stare back Why aren't they moving? From just being a brick stack

Seasons have changed Few of them and not just me We are still Far from being done

Generations of dogs Have come and gone The campus, still not ready For us to set foot upon

Children have now started asking Will we still be around?
When it is ready, so
We can play on the ground?

And yet, when I look everywhere I see buildings coming up faster than mushrooms Why must then we have delays In getting our rooms?

But when I listen carefully, I hear a strong little voice 'Have patients (sic), its coming up beautifully and you have NO CHOICE'

- Sharad, 36 yrs

# The Splash

The Sun painted the still surface of the water with its bright orange rays.

The vast lake surrounded by occasional patches of hills with trees,

spread across the landscape.

I watched as the rim of the waters hit the land, leaving the sandy banks wet, only to come back again.

A kingfisher sat on the cashew tree nearby, Its beautiful blue body glowing in the morning sunshine, moving its head from side to side.

SPLASH!

The silence was broken, and she flew away.

- Paawan, 14 yrs



## **Treehouse**

Before I joined Shibumi, I had visited the campus and noticed a tree with a ladder. This was the day I met a girl named Zain (11 yrs) and a boy called Ziad (8 yrs). They said that it led to a tree house and quickly climbed up the tree with great ease while I couldn't even climb the ladder. Once I joined school, I worked at it and now I spend most of my evening quiet times up on the tree-house.

A ladder stays on a tree,

To the tree-house it leads,

To climb it you have to be free.

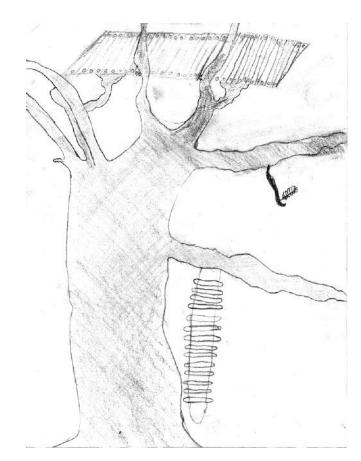
Its wood is very strong,

Unlike water reeds,

It helps undo any man's wrong,

And helps make their lives as sweet as a song.

- Sidharth, 13 yrs



## Is education time-bound, results-oriented?

This is a conversation that happened in my art class, between me and a child.

Child: Aunty, are you sure I am doing this well?

Me: Yes, kanna, continue. But do gently...

Child: I love to draw... But I am scared.

Me: What? Why are you scared?

Child: In my old school children used to pass comments about how I was drawing. So I thought I am not able to produce good drawings. But I am interested.

Me: Ok, sad. But you are rushing to finish and in that you are losing control of your pencil. Take your time and enjoy the process.

Child: I am comfortable with the regular pencil. Shall I use it to bring about the same effect instead of switching to drawing pencils?

Me: Hmmm... then try to make different patterns.

Child: Oh, Aunty. The patterns are actually useful to bring out different tones.

Me: Yes, kanna. Please don't rush. Enjoy what you are doing.

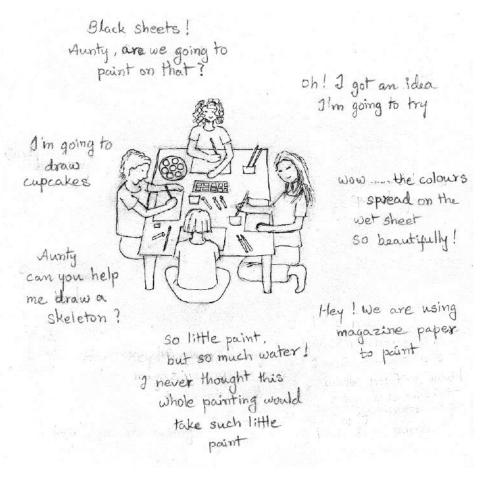
Child: We have to finish before 12 though. I will take too long.

Me: You have ample time to finish, and you can continue during the next session.

Child: Oh, can we continue next week? I assumed that it has to be completed!

Me: kanna, instead of completing, we will concentrate on learning the methods.

- Viji, 50 yrs



## SHIVBUMI ISCHOOL

In my old ischool they didn't allowed to spike my hare, But in the Shivbumi, they did not abled to care, Ther4, I came and joined off here, No longer to the bull harestyle I had to adhere.

In the first, I was a very fully naughty and mischief, And I gaved the teachers very many grief, And made them run wild without relief. To their patience, I was 1 powerly skilled thief.

Then slowly I able to thoda mechoord, And my brain gotten swolpa cyoord. Then, I am beganed to comprehence the filosophy of J. Krishnamurthi, But even today, I am not yet enlightened poorthi.

Even so, in the Shivbumi I abled to learnt a lot, About how to observe my pattrens of thought, Without getting a fully tangled and caught, And letting my brain decay and rot.

I sawed need to be a very still "n" quiet, And the importance of a pyoor "n" healthy diet. I know to do the physical activity, And henceforth not enter the medical hospitality.

The nature of the fear,
Became a very very clear,
And the sorrow and eye tears,
Was no longer a needed requires.

I noted the froblem of an self contradiction, And got clued on how to do the rightaction. I able to undrestand the dngrous emotional attachment, And then proceeded to do a subconscious detachment.

Still, there a very long winding journey to go,
And I know not what the fate holds for me tomorrow.
I am ebout to enter the society and navigate its maps,
Maybe, I can able to avoid involving in its well disguised traps,
And manage to farewell,
Without making the life 1 big hell.

In the vry short, I am vry suggest u to join the Shivbumi community, For it is a place of supremely superior very pyoority.

Adult or child, It will kindly provide u an powerful holistic yeducation, While making it seem like one superb foreign vacation!

It will able to make u bloom like 1 vry beauty flower,

And I assure u, it will most definitly change ur life forever.

- Sanjay, 19yrs

# In response to SHIVBUMI ISCHOOL

Many fine things in Shivbumi you learned But with Yinglish were never much concerned. Always gave it stepbrotherly treatment And poor poor teacher cried in discontentment

So the J Krishnamurt(h)i with yextra hech I urge you to correct with asap earnestness When that is done, You will certainly become Deserving of our superb foreign vacation.

- from Sanjay's english teacher

### Breathe in and breathe out

There is a smell of freshness,
A want of a deep breath,
As we enter Sora for quiet time,
With the tranquil mango tree by its side,
Accentuated by its branch peeping inside.

The space wakes up from a slumber of solitude, And acclimatises to our presence; it is all felt.

We sit down, cross-legged, hoping not to budge, With our backs resting against a short ledge, Some with closed eyes, Some heads turned towards the blue sky, Some eyes catching every movement.

Breathe in, and breathe out,
I quieten down,
And somewhere all of us are silent,
Listening to different intonations of the same sound.

The fresh day starts, with quiet time.

- Mariya, 14 years

# **Heading to come**

Stillness - is not the wanting to be still.

It is the observation of movement.

- Tanu, 35yrs

## **Dialogue**

When we were Palash, we used to say that the teachers are becoming like 'Krishnamurti' (Oh my God! Sravanthi you're turning into Krishnamutri!). And when we moved upstairs to senior school, it was completely different. We had to do things like lunch cleaning and sweeping, and even our studies changed. We began to study longer than we used to earlier. Then we saw in our timetable there was 'Dialogue'. "Oh no! Not dialogue", I thought, and that too it was slotted after a long and tiring walk. However, when we sat for a dialogue everything changed. I noticed some things that happened during dialogue.

In the dialogue, even if I'm not talking, I felt that I am still a part of it as I am actively listening and thinking about the topic being discussed. I feel that when we study, we think, and learn, by reading and writing. But when we sit together in a circle and read aloud a paragraph from one of Krishnamurti's books, we stop to think and understand what we have read. For example, when we read about a fight, we could remember our own fights and look at it in a way that is not possible during the fight. At that point, we are only arguing and not listening to each other, or ourselves. These conversations during dialogue help us to go deeper into the topic. I find these sessions very interesting.

Now I enjoy dialogues, as I am playing and moving with it slowly.

- Nanditha, 13 yrs

### States that matter

#### Happiness:

When I am in the water and feel it flow and slide past me while swimming everything is quiet and there is a moment of emptiness. I would like to call that happiness.

#### Sadness:

While watching a movie sometimes I find myself being in the character's shoes. And at such times when the character's loved one dies, saving innocent lives, there comes in me a feeling of helplessness and I am unable to move on. That is sadness for me.

#### Anger:

When people around me are saying things that I don't necessarily agree with then there is a sudden burst of strong thoughts within me and I begin to ignore everything else. That is how I experience anger.

#### Fear:

Once I had lost a cricket bat and conveniently forgot about it. When I was asked about it I felt a chill running down my spine and could feel heat radiating from my face followed by certain blankness. I can never forget that moment because I had a taste of what fear was.

These four emotions and their various branches seem to control my life. I find it fascinating how we want to experience and record them in our lives over and over again without ever being content with them.

- Anuj, 16 yrs

### **Presence in Absence**

It was the beginning of March and was already getting very hot. Somewhere, in a quiet place, away from the city, I was sitting facing a life-size statue of Buddha in meditation. I was alone and imitating the posture, willingly guided by the calm emanating from that presence. The world went completely silent, almost immediately, as I closed my eyes.

It had been a particularly long week filled with meetings, and I needed some quiet time. Pitted against each other thoughts were tirelessly digging away and running in loops trying hard to resolve; it was like apocalypse was approaching. It felt like a hundred unsynchronised tunes, all playing at once. All efforts to conduct a melody failed, and strangely the body began to feel tired too.

However, there was also contentment, unwavering, with no need to rationalize or identify itself. Somewhere, faintly in the background, story reels continued to play, but there was no urgency to follow or even escape any of it. The lack of resistance as the asynchronous narratives took over manifested a total acceptance. There was lightness and the body eased. The silence felt vulnerable, yet resolute. Neither an impulse to please to secure itself, nor a fear of an end; time was irrelevant.

Just as if to test, "It's quiet", came through both surprised and suspicious. That voice felt like something walked into the glare of a strong flashlight, oblivious to the situation. Then, "What happened to all that I was feeling some time ago? What will it be like when I open my eyes? I hope this doesn't end. Oh no! There's an ant crawling up my hand – must be a red one! I hope it doesn't bite me! Why am I afraid of an ant bite? It's only the memory of pain... It is not like I'll die."

A familiar discomfort slowly crept into the body, all the senses amplified.

A mindful eye carefully watched all this play out, witnessing a 'quiet' sacrifice revealing a stark contrast. The eyes slowly opened to find the beautiful presence sitting still, and just as calm.

- Sravanthi, 28 yrs

## **Bargaining for Sport**

It all started when Dr. Karthik said, "No sport for four weeks". When I heard that, I was shocked and tried to bargain with the doctor to make it 2 to 3 weeks. However, he said, "No, if you want your knee to heal you have to let it rest." I bargained because I was desperate to play sport. This was the third time I was being banned from playing sport.

The story started eight and a half months ago; when I was playing squash, I felt severe pain in my left knee. A week or two later it got worse and I told my mom and dad. We went to my dad's friend, an orthopaedician, who looked at my knee and said, "Just rest for four days and take a few painkillers and you will be fine". I followed his instructions for four days, but it did not work. So Roopa aunty told us to go to a doctor she knows; Dr. Tekur. He said, "No sport for one month and take painkillers before going to school every day, and also Vitamin D tablets twice a day". I did as he said but that too did not work and we went back to him. He said, "Hmm...I will give you a stronger dose of painkillers and Vitamin D tablets, but you still can't play sport". I said, "Okay, fine".

Throughout this time, I was beginning to get a little impatient because the higher dose had also failed to work. Finally, Ganesh uncle referred me to Dr. Karthik, who had one look at my knee and said, "No sport for four weeks".

And that is where my story started. When I heard that, I rebelled in my mind saying "No! I will not stop playing sport!" And even after the doctor instructed me not to play sport, I continued to play football and volleyball along with other physical activities. Lots of people in school were trying to advise me but I just did not listen. After about two and a half months of struggling with this, Roopa aunty told me how it won't get better if I treat my knee like this, and how I might even get a limp for the rest of my life! It was only then that I realised how important it was to take care of my knee, and therefore, my body. It has been six and a half months now, and I am still waiting for my knee to heal.

- Suhaan, 13 yrs

# I had a fall, that is all!

I climbed up a bullock cart,
While others sat at the back of the cart.

Suddenly the cart toppled over,
I went up like a bird; I thought my life was over!

But I came crashing down like a plane, I thought I would never get up again!

I was in danger zone, But i only broke my bone.

- Agni, 8yrs

PS: Since I broke my right hand, This poem is typed, And not written in my hand!

## Football and irritating things in between

As soon as quiet time is over I am up and running downstairs to get ready for sport (other than on the days when I am very sleepy or I am asking everyone to move it). Throughout my life (as far as I remember) I have wanted to be a sportsman; a cricketer or a footballer (by the way, I am twelve so my dream has not been there for long).

Right now I am in the football craze whereas around four months ago I used to go for cricket coaching. During that time I started to like football, and messed up my sports craze.

Let me explain why I wrote "irritating" in my title although so far what I have only expressed how much I love sport. You will understand "irritating" better when I have described a sports class for the Malhars (the group of thirteen year olds).

We start off by getting late for sport because some spend time chatting before coming to the field. Then we argue about the sport to play, wasting more time. At one point, Sharad bhaiya said we will only play Frisbee for a while to build our skill in the game. That means no more football, my favourite. After all this, we start the game and what do we see? Half of us run and the rest don't! To make matters worse, one of the runners, Suhaan gets injured, and cannot play sport for a long time.

But the arguments on what sport to play reappears and Sharad bhaiya introduced a new sport to us: volleyball. And suddenly every sports class, everyone goes 'Volleyball, volleyball', like a bunch of protesters. I admit that, for a while, I was also one of them. However, I did go back to wanting to play football and improve my skill in it. It was difficult because everyone wanted to play volleyball. So to accommodate both our interests I decided to play volleyball and improve my skill in football by using my leg to control the volleyball, and got myself into big trouble!

- Nikhil, 13yrs

#### At the crossroads

There are times in my life when there appear multiple options. Let me correct that, every moment in time, there are multiple options, which is what probably prompts writers to imaginatively foray into multiple realities and parallel universes. Nevertheless, there are moments which seductively invite me to choose a path upon which to walk. Not everyone has the benefit of a Cheshire cat, like Alice did, asking questions at appropriate moments. And the problem with the chosen path is once a couple of steps are taken, there is a sense of having moved from Here to There. And while I can look back at where I came from, I don't really know where I am going.

And that is when one is stuck. Being stuck means stopping, pausing, basically feeling the sky is falling on one's head and the ground is being pulled from under one's feet. At this moment, when reeling from the enormity of the freedom presented to me, literally, there is a quick return to the memory of terra firma. And I fail to jump off the cliff.

While Lewis Carrol has passed me by, that 13th century Persian mystic has not abandoned me.

"Jump off the cliff and receive the wings that will keep you aloft"

Jalal-uddin Rumi knew what he was talking about. The point is do I have the courage to listen?

- Roopa, 56 yrs

# It has been that kind of a year...

It has been that kind of a year
The kind that you always read about
And wonder what it would mean
To experience it, in and out

It has been that kind of a year
The kind that went from one thing to another
Leaving you restless and tired
Vexing about this, that and the other

It has been that kind of a year
The kind where you wanted to stop and grieve
Alas! It wasn't to be so
There were many things to do, and no reprieve

It has been that kind of a year
The kind where you felt an aching absence
An unfathomable loss
A vacuum, a hole and all round silence

It has been that kind of a year...

- Ganesh, 45 yrs

#### Sometimes...

I climb up the stairs, and enter the large hall, our study space. Surprisingly, the place is empty, but for a man sitting by himself, cross-legged on the floor.

I tip-toe across the hall, for a moment unsure of where to sit, but I stop in front of him, and lower myself to the ground. I feel a tremendous, throbbing, thrumming energy around me, and my eyes are automatically drawn to the man. His eyes are twinkling, and a small smile twitches at the edges of his mouth. To distract myself, I avert my eyes to look at a tree. Sounds of birds chirping reach me, and from somewhere far away, I can hear faint sounds of traffic. There is a feeling of warm sunshine caressing my skin, the cool breeze encouraging goose bumps to emerge on my arms. I shudder, and my eyes drift to the man again.

His eyes are now closed, and his mouth is turned down into a frown. His bald head is glinting and gleaming in the sunlight. He looks like he is deeply contemplating something... something out of reach... something which may not be found... I close my eyes deciding to do the same.

All of a sudden, I hear chatter around me. I open my eyes, and to my amazement, I see my friends chatting and laughing. What? How could I have not seen them when they walked in?

Suddenly, someone pulls me up, and drags me away. I turn around, looking over my shoulder, wanting to take a last look. The man is still there, sitting cross-legged, still in deep contemplation.

- Prakriti, 14 yrs

### In Memoriam

Sitting inside Kamala aunty's house, looking at Kabir uncle's face, it felt as though he was there, timelessly present in all of us, in the air around. He hadn't left, he was right there, not as spirit or feeling or anything mystical, but the presence that he was, lived on within each one of us. It came from his fervent interactions, from love.

There was no sadness, no joy He was calm, and he was coy Frozen forever in the moment With no feeling But only atonement in his being

He was quiet with no breath
He was benevolent even in his death
Lying still he remained
Smiling beautifully
With such grace

- Kafeel, 35 yrs

#### Seasons at Shibumi

WINTER – It is still dark outside as we wake up to go to school. At the bus stop everyone is wearing sweaters. On the way to school, cold air rushes through the windows of the bus making everyone a little more awake. As we get off the bus and walk the remaining meters to school, little puffs of vapour come out of our mouths each time we exhale. Those wearing shorts rub their legs with their palms and reflect on the wisdom of wearing pants in the winter.

The leaves on the tamarind tree are turning brown and falling. Every morning they carpet the ground under the tree like a blanket.

SUMMER – We don't wear sweaters in the morning anymore. By lunch time the heat is shrivelling us up and making us sleepy. We are constantly emptying our own and each other's water bottles. Standing on the field and the cement pitch is agony to bare feet.

On the other hand, summer is the season of mangoes and tamarinds. There are bunches of mangoes – green ones – and tamarinds on the trees. The leaves of the tamarind tree look like they are melting off it. They are also turning yellow.

MONSOON—It is now the rainy season. The sky is grey and dull as we get off the bus. Later in the afternoon, it starts to rain. All of us huddle to the sides of the open study space to eat lunch, as puddles appear on the floor and the roof leaks. The rain lets up for some time but begins again during the evening quiet time. We run through the rain, jackets covering our bags, to reach the buses. Most nights it rains heavily, and the ground is wet the next morning.

The leaves on the tamarind tree are new, green and pink in colour.

- Rukmini, 12yrs

# My Year in Senior School

I moved to senior school this year. In the beginning it was not very different from the year before. I did a lot of hand work like crochet, macramé and sketching. But one thing was different. I interacted with the senior children more, which was great. After a while, the timetable got filled with slots for subject explorations and I got introduced to subjects like Biology, Chemistry, Hindi and History. While I was exploring subjects one of my favourites was Biology. I enjoyed Biology because there is so much to explore in our body and what the body is capable of. It is amazing. But as the exploration of subjects continued I realised that I had no time available for working with my hands work. I didn't know what to do.

Also, once I got used to the space and the timetable, friendship issues came up. We had a lot of conflicts between us (a few friends and me) and that took up a lot of time and energy. I could not focus on anything. Thankfully, even while all this was happening Tanu di and Soumya aunty helped in getting me to work with hands again. That was a huge relief!

It was then time for our annual school trip. We went to the Gurukula Botanical Sanctuary (GBS) for about four weeks. It was an extraordinary experience. It was beautiful being amidst nature and it was really nice to spend time by myself. In GBS, being away from home and by myself allowed me to look closely at my relationship with friends. This somehow got me interested in exploring Psychology because it is so cool to see how one's mind works. Sometimes, it just feels like magic! When I returned from GBS I explored the subject with Sharad bhaiya.

The year has almost come to an end and it feels like so much has happened!

- Saanj, 13yrs

## An interest in Biology

Before I go to sleep each night, I love to talk with my nani, asking her how her day was. I love the stories she tells me! As a kid I always was fascinated with death. I would ask her about how my nana died. Sometimes she would tell me a story of how a boy, who was a little younger than her, was killed by his father. Every time she told me that story it sounded new, and exciting. The best part about my nani is that however tired she was she would never forget to tell me a story.

One night, my nani's younger sister, who was visiting us from Mumbai, told me a story from her twelfth grade Biology class. She had no idea that she would have to cut a living frog and so when she got to know, she was terrified. I guess the frog would have been even more terrified. After listening to her story I asked "why did you get scared because the frog is so tiny and you are so much bigger than it?"

My love for Biology bloomed only this academic year as a Malhar. When I came to study Biology I wasn't really frightened by all the stories I had heard so far, and was able to come to it with a fresh mind. Roopa aunty teaches me Biology, and I love it very much. Every Wednesday she thinks up a new experiment for us to do in the lab. Sometimes, when I am stuck, I call out to her, "Roopa aunty, I can't see anything under the microscope!" She comes over, affectionately admonishing, in Tamil, "Kozhakattai Subbi! (roughly means a modak) Here, let me see" and helps make it right.

Last year when I went to Dubai I played with dolphins! I fell in love with the kind, loyal and pretty bluish grey dolphins. I noticed their marble sized eyes, as they splashed around in the water. Watching them play, reminded me of myself when I am in the pool. These dolphins were all kept in cubicles in the pool waters, behind an open arena with a roof. There were dolphins of all ages. They would come out at show time to interact with people who came to meet them. I had a chance to touch and hold a young dolphin! From the moment I got out of the water the idea of becoming a Marine Biologist got stuck with me. The dolphin trainer told me that if I wanted to work with dolphins or any other sea creatures then I would have to study Biology. So here I am, studying Biology to pursue my dream.

- Riya, 13yrs

### Dance

When I was eight years old my mother enrolled me into an Odissi dance class. I was not sure of how it would turn out. I didn't like it at all and I didn't put any effort into the dance. I just performed once on stage. After that I stopped. When I was ten years old my mother enrolled me again but all I wanted to do was play with my friends. The time came for next performance and I still didn't put any effort.

Around the same time, I was learning yoga at school and at times was not doing it properly. My yoga teacher (Roopa aunty) said "If you want to do this, then do it properly, if not you are going to waste an hour of your life". I wondered if something could change I put in a little more effort. Then I decided to try it in dance too. I did it and I kind of liked it. But I still wanted to play with my friends all the time. But slowly I put more effort in the dance.

It was 2018 and I had another performance but this time I put a lot more effort into the dance than I had done before. Finally, it was the day of my performance. I got all ready and I was very nervous waiting for my turn. Watching the others dance made me more nervous. So I just decided to put all the effort that I could gather and do the best I could. When my turn came it felt like the whole thing was moving very fast. At the end of 2018, I hurt my hand and I could not dance. Watching people dance was frustrating because I felt like getting up to join them.

It is 2019 and my hand is fine now and I love dancing. When I dance my purpose is not to get the perfect step or worry about people judging me. I just dance to enjoy each and every step.

- Kirtana, 13yrs

## My Journey with Cooking

I can't exactly pinpoint the moment when I discovered my interest in cooking. From when I was little girl I would help my mother in the kitchen or even watch her cook or else hang around in the kitchen. This was when I had to stand on tiptoes to see the counter. I was that small.

Looking back now, I see that I always wanted to cook lots of food. I never used to use recipes. As I experimented, different flavors emerged and these sometimes triggered memories of other foods I had tasted. For e.g. tamarind flavour used to remind me of a dish my grandmother made. Also, during these experiments, the kitchen would become an absolute disaster and getting my mother out of the kitchen as I experimented became quite a task. I wanted to feel in charge.

Over the years, the adults noticed my interest in cooking and wondered if we could somehow deepen it. I read a book called 'Eating India' by Chitrita Banerji with Karuna and conducted interviews as part of an exposure on Bengali cooking. This also opened up history for me. Later, I went to Rangashankara and IME and worked there at their cafes for a week. Finally, I cooked a meal at Kabir Uncle's house for about fifteen people. The food project culminated there, but the idea of Food & Nutrition as a subject to study was born.

Right after I had cooked in Kabir Uncle's house he asked me if I would be interested in cooking for the whole school! I was excited but at the same time nervous and scared in case I ruined it. After a few days I asked Roohi Aunty (she looks after the kitchen in our school) and asked her if I could cook for the whole school and she said "SURE YES!" I came up with a menu and presented it to her. Soon after, we ordered all the ingredients.

I entered the school kitchen on the morning of the day I was to cook and started to organize how I wanted the day to proceed. After I visualized how I wanted it to go I became more confident. As I was working in the kitchen I noticed that I was not at all scared or nervous. It felt like I had done it all my life! I also noticed that while I was at ease, the people around me were running like headless chickens! Alas!

Through my years of cooking and experiments the most important things I've learnt are: You should know your flavours well! How they act once you put them in a dish. Quantities matter, especially when it comes to cooking for a large group. It also helps to be in control because if you are not in the right mind space then it is better not to cook because it will show on the dish that you had done it half-heartedly and finally stay calm and try not to panic! Actually, I still have a problem with the last one. Ha ha! I am sure the people who have cooked with me know what I'm talking about!

- Devaki, 14yrs

#### Voices in the crowd

Singing in the assembly! Where do I start? It's the only time during the day when the whole school comes together for an activity. I wanted to write about singing because I find that everyone is so different when they are singing when compared to the way they are at other times in school; like when they are on the sports field, they shout and scream. But when it comes to singing; well, you will see as you read on.

Just after Shibumi care, which is when we clean up the school, is the time for assembly and I have to pull myself up for singing. Dilly-dallying as much as possible, I try to make it look like I'm busy. As always, Ganesh uncle reminds me about assembly. Now I have no excuse but to start moving upstairs, skipping a step or two, moving as fast as possible without making too much noise. When I reach the top of the staircase, knowing that I am late, I see about twenty pairs of eyes turning to look at me. It gives me the feeling of standing out. As I open the knee length door, it makes a creaking noise, not helping my situation at all. Roopa aunty, on the other hand, smiles and winks; it's a wink with both eyes. She is sitting in an extra tight cross legged position and her hands are placed on her lap. The right hand faces the sky and her left hand cups her knee, outlining it. Roopa aunty knows how to pull the group up at times when the voices are going down. Her voice is very strong and powerful, especially when she is chanting vishwam darpanam.

Ganesh uncle sits in front of me and then asks me to move in front of him (Wow! So clever!). This is a bad idea. He sings very loudly and yet in tune. So then I think, next time I'll sit next to him, not in front or behind. We all sit like penguins in a storm, huddled together, but when I look at Sravanthi, who is leading this assembly, she seems to have all the space in the world. She has a small shruthi box next to her and I don't know it helps. It just seems to make high and low sounds over and over again. I can't even tell if I'm supposed to sing high or low, every sound I make seems to fuse with that of the shruthi box. When Sravanthi sings she wiggles her toes, blinks rapidly for a while and then moves her hands towards the sky. Her voice starts off slow, sweet and calm and then suddenly becomes strong, loud and bold and I am kind of shocked at the change!

Listening to Sravanthi's voice, over the sea of other voices, makes me feel like I am not singing loud enough. But, when I listen to those around me, I notice that they are singing softly, in comparison to Sravanthi, and I am unsure how I have to sing, loudly or softly? Some others don't even attempt to sing, they just mumble the words. But the youngest kids are the best; they don't know how to read but they know most of the songs. Some of them sing loudly and I find that cute. And I am amazed by the fact that they are not afraid to make a mistake.

Sometimes I really wonder, what do I actually sound like?

- Sarayu, 13yrs

# Singing in Assembly

Rarely have I sung in a group before and even if I did sing, I sung so that only I could hear it. So, when music assembly began in school, I baulked at the idea. In the beginning I would try my best not to sing; I would mouth the lyrics or just be quiet or just do whatever I could to skip the singing. I was also ready with excuses "I can't sing that high" or "my throat is hurting" being some of them.

Most of the time I would sit as far away as I could from the person who was teaching the music, and I would end up being next to people who were like me, i.e., resistant to singing. And when I did sing loud enough for the person next to me could hear, I got a few looks of surprise, immediately I felt self-conscious. This self-consciousness confused me and I promptly went back to singing softly and being inconspicuous again.

But over time, I started to sing out more often and people stopped looking at me with eyebrows raised in surprise. This, in turn, motivated me to sing out more often. It was a virtuous cycle. The teachers

also helped my singing, by sitting in the back row and reminding me to sing.

Singing is not the only time where I have encountered this feeling self-consciousness. It has appeared at other times too. It was there while we read "The Merchant of Venice" together where each of us chose characters and read our parts aloud. Some of the excuses I used were "I can't read aloud without stammering" or "I read softly so, it makes more sense for someone else to read". I also get it when during dialogue each of us explores our thoughts, feelings, sensations individually and together. Central to this exploration was speaking out and that's where the self-consciousness kicked in. The fact that assembly happens every day might have helped the self-conscious feeling go away but I am not sure.

There are other difficulties with singing that still persist. For instance, if I sing for a long period of time without taking a break then my throat feels sore. Another difficulty is that my throat hurts when I sing high for a few minutes.

These days I still sit in the back row but I sing out now. That is, when my throat is not sore.

- Varun, 16 yrs

### **Slide Rule**

I wanted to do something related to numbers, but not Roman numbers because I had finished working with them. I wanted to do something by hand. So, Kumaran uncle suggested slide rule. He showed me the way to do addition and subtraction using two linear scales. I asked Hemant uncle, my science teacher, if he knew slide rule and he said yes. I tried playing around with him to see if I could do multiplication and division. He asked me to start with addition and subtraction.

After a few days I started saying that everybody should use only slide rule. And then Kumaran uncle said 'Aha! You have the slide rule disease'. On the serious side, we decided to work on slide rule once a week. We explored addition and subtraction using two linear scales. We explored multiplication using law of exponents because a multiplication can be converted to sum of two exponents. We borrowed a slide rule from Sridhar uncle and used it to understand how it works. Then we used printed logarithm tables to do simple and complicated multiplication problems. We learnt that it will give the answer quickly but it won't be precise, you won't get more than three significant figures.

Meanwhile, I continued saying that everyone should use only slide rule and Kumaran uncle used to say "Virii alert!" (radius is singular and radii is plural. Similarly, virus is singular and virii is it's plural. That's my logic!). He started saying it's a mutation of the Roman numbers virus which I had earlier. He compared it to the cold virus where each time we get a mutated version of the cold.

We watched a few videos of the slide rule. In October 2018, we started working along with Das uncle, our carpenter, to make a three feet long slide rule.

I was repeatedly making mistakes in logarithms and one day I said "Why is this machine making mistakes?" (calling myself a machine) and Kumaran uncle said "The machine is not paying attention" and I replied "I don't want to get the virii". I had been thinking about it like Roman numbers and that's why I was making mistakes. I decided to get out of that habit (removing the virii) and then I started doing it correctly.

By January, we had a slide rule that was ready and I am learning to solve arithmetic problems using slide rule now.

- Aditya, 15yrs

### Math!

There it was; that poor, innocent Math textbook. It just sat there on my study table; completely unaware of what a huge part it played in my life. I knew I had to do something about it. I couldn't just gawk at it. From the inside, all I wanted to do was run away from there or perhaps forget that Math existed. It was almost unbelievable that a small object was capable of producing such strong feelings in me!

It would be extremely simple, practically effortless to get away from it. But, the hard fact was that there was limited time for the exam and there was no evading it. This stood out for me. And on certain days, it even scared me.

So, after spending about 15-20 minutes staring at the closed textbook, I reluctantly open it. Then, I open my notebook, take out the calculator and pull out the 'perfect' blue pen, letting these relatively petty jobs take as much time as possible. It's quite unsettling, because when this is happening, I would have fooled myself to believe that I was doing the necessary tasks. Not attempting to delay the actual working on math. From here, one of two scenarios takes place.

Scenario 1: I continue to stare at the open books. My head is flooding with emotions like helplessness, restlessness, frustration, even occasional flashes of hatred appear, bringing with it an unrecognisable aggression, making me want to throw the book away or perform other violent actions. During such moments, I knew that I couldn't work. My mind would be all fuzzy. Any work done from there, wouldn't have been thought out clearly. However, even during such times, I force myself to study. I work blindly. And of course, the results of such reckless attitude will show through my work.

Scenario 2: A blankness descends over me, leaving me devoid of any kind of feeling, thought or opinion towards the subject. It is almost like I am numbing myself to any emotion which I would otherwise feel in full blast. This is ideal, because I can now work for a long time with concentration and ease. It feels like I am watching myself work from the outside. My physical self and some memory from the brain is all that was working. All heart and sensation is extracted, leaving me hollow. However, it does make it all rather mundane.

Ganesh Uncle, my Math partner, has explained to me about a million times about how Math is valid in our lives. Every new concept he teaches me comes with an explanation demonstrating how it plays out in situations in daily life and with easily understandable examples using cakes, apples and oranges. When he explains all of this to me, I understand it. I can practically feel it, as my brain makes the connections. But then, when I need to come back to working by myself, I feel rather lost. Perhaps, the 'understanding' of the concept wasn't really there. I think it's a bit like when you're travelling in a fast train and the landscape is dashing past. You can't really look at everything in that scene at that speed, but you are able to clearly tell that there are hills, or a river, or if there are houses. I feel that's what happens sometimes. I'm only able to identify the large picture. The insides and all the tiny but important aspects get forgotten.

Another important thing I notice is that I've quit trying to bring myself to like the subject. I remember trying desperately to do that because I assumed that it would help with the working. But, in reality, it was not possible. I realised I can't force myself to feel any emotion. My body just didn't seem to allow for that to happen. In the manner by which I have spoken about Math, it might seem like it is my arch-enemy. But, I don't think it is. It's true that we are not very good friends, but we both understand that. Ganesh Uncle plays a crucial role in this love-hate relationship as he's the only tie that there is between the subject and me. Both of us have been deciphering my pattern of work, which has helped us understand how I work on it when I am doing it on my own.

Working with Math remains a challenge. Our relationship might change in the future, who knows? Sometimes, I wonder what it would be like after the examinations in November; a life without Math. I can't see myself missing it. But I can imagine looking back at this long and strenuous mathematical journey that I would have completed and feel the purest form of euphoria.

## Finding a Rhythm

It seems like I am always thinking about time management these days. I've to keep looking for ways to maximise my time for studies. I don't even remember what it's like to be bored with nothing to do at home. My days are packed. One thing I've learnt is to study more effectively with the time I have. My stamina has increased and I can sit for a long time working out problems without feeling restless. I seem to be coping fine now with the immense workload I have. It was not always like this.

I was relaxed with my studies last year. The exams were far away and I had a relatively easy workload. I sat with my textbooks on average an hour at school and a little less at home. I wasn't too focused though so I didn't actually do much. I did not like it if the timetable had more than one hour of textbook work. I did a lot of non- academic work; carpentry, the car project, the geodesic dome. At home, I played football and read fiction books daily. I played video games and read non-fiction books on a semi-regular basis.

At the beginning of this year the teachers and I had made a plan for my academic work for the exams. At the time the plan was made, I thought I had to start studying seriously for me to be on schedule. And so, I studied a little more. I spent an hour at home. The new timetables had two hours of textbook work on average. I still had carpentry and the geodesic dome.

I was usually a little behind on schedule. My studies would come up in my parent teacher meetings. I started studying an hour and a half. My studies were still under control. And then came the school trip to Rajasthan. Here's how it affected my academics; there was the week of holidays before the trip in which I didn't study, there was the trip itself, the four days after the trip in which I was drowning in material comforts, (food, football, books and video games) and the rest of the month in which I found I had only half the stamina that I had possessed earlier. In effect, the trip cost me a month and a half of study time, perhaps even more. Even then, if I had a choice, I would still have gone for the trip. School trips are not to be missed, unless it comes at an exceptionally bad time.

Here's where I stood at the beginning of January. I had started the Economics textbook late and now I was four months behind the schedule for the exam. It turned out that I was studying a different Math textbook and I had to start on a new one just eight months before the exam. Even I do not know what had happened to the Physics schedule; what I previously did in a month I was now required to do in a week. It was partly because we're studying from two different textbooks simultaneously. My Chemistry work was comparatively better; although it was still a steep ask. The only saving grace was that the requirements for the English language preparation remained the same. Effective time management was becoming an absolute necessity.

I found it very difficult at first. I made plans to finish portions by certain days and found that I could not complete them. On some days I stayed up till 11 o'clock studying and yet, I slipped behind schedule. Now though, I seem to have found a rhythm. It is now March 6th and I'm glad to say that I'm not too far behind in my schedule (I'm behind in Math and Economics but I'm confident of catching up). As I've said, I'm managing my time and working more effectively. On occasions I am able to go up a notch where I enjoy answering problems and at those times I can study an hour without a break. Those are the times I finish the maximum amount of work.

I have to keep up a stiff pace and I'm sure I'm fully capable of doing so. I'll just have to wait and see if I'm right.

- Yashwanth, 15yrs

## Studying for an exam

I didn't know what to expect when I was told about writing an IGCSE exam. So when the first discussion about laying out a plan for preparation happened more than a year ago, it filled me with apprehension. The process of choosing the five subjects that I was to take up had a lot of to and fro-ing but I finally ended up choosing Math, English, Economics, Chemistry and Physics. Initially I assumed that I would enjoy Business Studies and intended for it to be a substitute for Physics. My seniors advised, saying that Business Studies and Economics go well together and I agreed. However, after reading the textbook and thinking about it, I realised that I didn't really enjoy it that much after all. I went back to Physics because I still enjoyed it, especially solving the problems. It was far simpler with Chemistry. Roopa aunty felt that the subject really 'sang' to me and I couldn't agree more. Out of all the sciences, I had enjoyed studying Chemistry the most. I decided to try Economics after reading parts of the textbook to figure whether I would enjoy taking it. After reading the textbook, I became interested in the subject and decided to take it. As for Math and English, they were compulsory, though I enjoyed doing Math and would have chosen it as a subject anyway.

Initially, I used to be able to study only for 45 minutes at home before losing my stamina and stopping. In the evenings, I would play first and then get to studying thereby reducing the energy I could have given to my work. Now, I was at a crossroads here, on the one hand I wanted to play football every day but on the other hand the work I had to turn in was also increasing. I used to let it all pile up until the night before I had to submit my work. This ate into my bedtime which then left me exhausted the next morning. I didn't like this way of studying. Even though I knew this, I wasn't ready to give up playing football in the evening. I knew I was doing this the wrong way, but whenever I looked at my friends and the football, the excitement took over. My parents warned me about this, but I argued that I always finished my work on time. I thought I could keep up the football-and-then-studying routine but I was wrong. I ended up sitting at my desk with tons of homework. It was at times like these that I felt writing the exams were a real burden and I didn't feel like doing it.

A few months ago, the workload started increasing rapidly. This meant that I couldn't play and still do all my work. So, I compensated by putting in more effort. It worked for a while. But, slowly, with the longer duration, the number of times I got distracted also increased. After the first forty-five minutes, tiredness would set in. This stop-start rhythm continued and I was behind schedule. During the winter vacation I had hoped to catch up on lost time but I didn't have enough stamina for extra effort. Towards the end of the winter vacation, my father and I had a talk about this stop-start rhythm and how to break out of it.

Even after that conversation it felt like that I didn't completely comprehend the changes that would be needed to establish a strong rhythm. However, to establish a strong rhythm I knew I had to stop going out to play since it really used up my stamina. It was hard to do that and I used to watch my friends play from my window. But I went with what I knew had to be done. I needed to study hard and not go out to play if I wanted to establish a good rhythm. Then I started working more and more, realizing that the stamina had been there the entire time. It wasn't easy either, but soon studying long periods of time wasn't that difficult anymore. Gradually, my stamina increased. Each time I sat down to work I was able to work for longer. It might take some time to be on top of my work but I am slowly getting there.

- Gautam, 15yrs

## Title yet to come

My cousin and I wandered down a road, close to my house, catching up on our now busy lives. It was a couple of weeks before my first exam and soon she was going to writing her mid-terms. Hence we hadn't met recently; busy studying intensely and spending entire days at our desks.

When she was describing her experience with exams, a sense of uneasiness and fear was evident in her tone. The otherwise confident and cheerful person now spoke with timid anxiety; and even thinking about the upcoming exams made her stomach churn. Suddenly, remembering I was writing my exams too, she asked me how I was coping. "It's surely a lot of work, spending long hours reading, writing and doing mock papers, but there isn't much more to it." I replied plainly. "It's my first exam ever, so I'm actually pretty excited about it. Finally get to find out what the whole fuss is about!" I jokingly added. She didn't seem too convinced with my answer. I wondered if she was expecting sympathy towards her situation or she just didn't believe me. By then the conversation moved into talking about the latest shows and which' celebrity was dating whom?' and everything else was forgotten.

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A couple of weeks later, the day of my first exam finally arrived. I woke up leisurely and after a quick bath, ate a breakfast of some fruits and juice and left for CFL. The campus was covered with dense lush trees with scattered stone structures, resembling a typical Krishnamurti school campus. The care-free attitude with which the students were sitting outside the examination hall accompanied by the high-spirited smiles spread across their faces, ensured whatever little nervousness was there, evaporated altogether; and I was completely at ease.

I sat down for the English exam, wishing the paper would be on an interesting topic (boring topics make it really difficult to write about ) and hoping to do my best. And two hours later I walked out of the room, a little unsure about a couple of answers, but surprisingly without a sense of relief. For some reason, I felt extremely confused. Knowing very well that I would never have to do this English paper again, I still didn't feel a sense of respite. Working relentlessly, for more than a year, to finally being able to write the exam; just for those two hours; being done with it surely meant celebration. Or so I had thought!

Perplexed, I came home and lay down on the bed. Later that evening, my aunt called to ask how my day had been. In conversation, I asked how my cousin's exams went. "Bad." She replied without emotion. She threw up her food ten minutes before the exam on the first day, and since then had been skipping breakfast and lunch on her exam days. Anxiety had wreaked her, I thought to myself. The saddest part was that she was exceptional at studies and yet her fears had gotten the better of her. The pressure, the fear of not doing her best, the thought of her getting lower marks than her friends; all these notions seemed to have gripped her. Her teachers, parents and the whole of society per se, had burdened her with this weight of expectations. More importantly, she had accepted them like any student and strived to achieve them at all costs.

Obviously, I too wanted to get good marks and give my best, however to accept not being the best at a subject was equally important. To the contrary, carrying this immense unnecessary baggage actually made it even more difficult to focus on what I was studying. At that moment, I felt grateful for not having received any pressure from my parents or school to achieve certain grades; and surely this helped me to do better because when you don't have standards to live up to, you really give your best.

Because of this, neither did I have the hassle before the examination nor the liberation afterwards. Our minds have this tendency to make simple things so much bigger and complex than they actually are. Especially in the case of exams, I had first surrounded it with complicated and cryptic ideas, which made it so difficult to see them for what they were. But, realizing the foolishness of such a construct was quite significant in preparing for my exams.

Roopa aunty's words resonate in my mind as I write this piece. Once she told us, that after every exam when she returned home, her mother asked her two questions: Did you give your best? And did you

## On Labbing

Our labs are unassuming little things. Not for them the glitzy life of the carpentry shed or games field. The eye, on happening upon these sad creatures crouched in the dingy recesses of the main building, is decidedly unimpressed, and quickly flicks across to some more alluring phenomenon.

My acquaintance with these customers had, until recently, been just as cursory. Rather than being redolent of the fragrant fumes of methyl ethanoate or the multi-hued acid-base antics of methyl orange, my recollections were fraught with hostile memories of Raoult's law (involving a rather testy tube of potassium permanganate) and equally egregious ones of the law of a certain Snell, whose glass slabs and optics pins still haunt me on stormy nights. Thus far, the maxim of my friend and senior, Sanjay, viz. that 'practicals work only in theory', had held painfully true.

This year, though, I made a more lasting acquaintance with the labs. Sridhar Uncle (who handles Chemistry and Biology for the older students) and Vishwanath Uncle (Physics) spared no efforts to drown my compatriots and me in an unrelenting deluge of practical work. I would be playing a smooth game with the truth were I to claim that Sanjay's principle was violated, but I cannot say that I didn't enjoy much of the time I spent mixing chemicals and zapping piezo discs. To quote the French, 'une fois le Rubicon passé', etc. etc. In what follows I will try to give the reader a feel for labbing.

As I have already mentioned, the sad reality is that the average experiment fails. A striking example came up only some weeks ago. We wanted to investigate the kinetics of bromelain, a mix of enzymes extracted from pineapples (these protein-digesters, which rely on thiols in their active sites, are also the culprits behind pineapple related tongue burns). We set about making a series of standards with which to compare the results of the experiment. Soon, we had an array of tubes of various shades of purple and blue all marbled together. Boil some of the enzyme to denature it, and we're ready. We started the clock, added the enzyme and watched with bated breath...

'Wait! Wait! What is this?'
'The standards are changing!'
'No, no, no! Start again, start again. Boil it nicely.'
'Sixty, seventy, eighty, ninety degrees.'
'Wait for eight minutes, and add it once more.'
'Aiyyo, same thing again!'

After a couple of repeats we realized that we had apparently found an enzyme that had taken Nietzsche's quips on being strengthened by that which doesn't kill very much to heart. Faced with a toxic brew of two molar alkali and copper ions, not to mention temperatures near boiling, this beast of a molecule batted not a thiol group.

Similarly, my exploits in the field of Chemistry range from the recalibration of numbers such as Faraday's constant to the discovery of exotic elements with Mendeleev-defying masses.

Physics on the other hand, has a rather more staid character (leaving aside its rather troubling fascination with high-energy collisions and bombs, that is). Its domain largely consists of lumps of iron and bits of wire and play with pendulums, tubs of water and glass blocks. However, its exacting requirements are sometimes most difficult to satisfy, and the weary experimenter is invariably met with much resistance when they try to fiddle with arrangements even a little (especially if electricity is involved). Suddenly, there is many slip 'twixt the rough surface and the mass. The apparatus begins to oscillate in mysterious ways, but no wonders come out ('Ah, twelve volts, you say?' to which 'No, make that zero point five.'). The whole set-up decays rapidly.

But for every few experiments that went direct to rock-bottom, there was always one that went direct the other way. I cannot fathom how there could be an evolutionary incentive to aim for perfect graphs, but when experimental results tally perfectly with theoretical predictions (whether they be mine or Google's) there is a primeval response from somewhere deep in the recesses of the limbic system, with

tingling pulses of excitement vibrating every fibre of the body.

The wavelength of light was one such. With a simple diffraction grating (a piece of glass with miniscule scratches that absorb light) trained at a white light bulb, rudimentary measurements with a blunt pencil and a metre rule, and some basic trigonometry, we could make astonishingly accurate (within twenty nanometres) measurements of this quantity. The numbers simply sprang out of the calculations, and I imagined resisting an urge to pinch myself.

Hess's law, a principle that relates energy changes in reactions, was another such. At the outset, the procedure we were to use seemed like something out of a compulsive hand-waver's diary. A thermocol cup was to be our insulation, and we were to fill it with acid, into which some sodium bicarbonate would then be added. After that, we would repeat a similar experiment with sodium carbonate instead, in both experiments measuring the contingent change in temperature. We were nearly scoffing. With such significant temperature changes as would be bound to arise in a neutralization reaction, how could a pathetic open top thermocol cup do anything significant towards limiting heat loss? What about the changes in specific heat capacity because of the solutes? But for want of a better procedure, we carried out the experiment anyway. And lo! Our result was less than 0.4 percent away from the accepted one.

But these moments of experimental lucidity (or serendipity; I am unsure as to which was dominant) aside, there is wondrous aspect to even the littlest things in a science experiment.

Seeing the unexpected russet tendrils of iron thiocyanate snaking through a test-tube of Mohr's salt (upon addition of potassium thiocyanate, a colourless solution, to what was a dirty yellow-green), we probably feel just the same blend of surprise and wonder (perhaps just a little less cupidity) as some mediaeval alchemist pottering through his lab mixing unknowns.

And when after taking peel after epidermal peel of a series of leaves to no avail, finally a bunch of guard cells shows up with cell walls limned in perfect contrast to the nuclei and cytosol within, the same surge of exhilaration as would have animated some early lensmaker courses through us.

Then there are the occasional moments when one realizes that exactly the same process as was just investigated in the lab is at play in some simple everyday phenomenon. Take the tiny multi-coloured patterns that form near the eyelashes when the eyelids are partly closed (this works best in bright sunlight). Only some days after the diffraction experiment, it struck me that this pattern was no doubt caused by exactly the same phenomenon, with the gaps between the many tiny hairs brushing against each other acting as miniscule light sources, this light then mixing to produce all the colours of the rainbow. It was a trivial phenomenon, and one that has no doubt been explained by countless people before, but a heady sense of discovery accompanied it—a sense of discovering the processes of the world, however small, however insignificant, which, after all, is what labbing is about.

- Rajat, 18 yrs

Proceed with caution, as there may be sines of trouble when these experiments are taken too far.

## Interning at a bookstore

A complete bookstore experience, for me, is not achieved unless I gaze lovingly at beloved titles, stroke spines, squeal when I discover a book I hadn't expected to find, gag expressively at particularly infuriating creatures that don't deserve to be bestowed the title of novel, and become elated with the prospect of more when shelf after shelf of unread books appear, begging to be picked up.

When the winter vacation came around, I had decided that I wanted to spend time at a bookstore. I wasn't sure of exactly what I'd do though. Recommend books? Find out how everything works? Even without a plan, the owner of the Crossword branch I went to, was more than happy to let me roam the bookstore, and also said I could read the books if I wanted to! I didn't take him up on the offer though.

Surprisingly, what I enjoyed the most, was talking to people. Generally, I hate talking to new people, and I still find it awfully difficult. But having something in common made it feel like a sort of instant connection! Sharing favourites, finding new reads, discussing various plots or characters and best of all finding another person who delighted in this as much as I did was unparalleled.

I spent around four to five hours in the store each day in the evenings, when the store was at its busiest. In the beginning, when I approached people in the store, their first reaction was absolute confusion, because I did not look or speak like an employee, but I asked if I could recommend books, and this was interpreted as me wanting to sell them books (especially by older people). I quickly learned that the best course of action was to introduce myself as a student volunteer, and explain why I was at the bookstore. This made people both relaxed (because I wasn't a salesperson, thank god) and eager to talk to me, as they were interested in what I was doing.

For the most part, I suggested books to younger children and their parents, as there were more visitors of this group than in all the others put together. Parents were often quite relieved to see me, as they were really quite helpless in this situation!

After the first two or three days I spent there, I became well known. Many people started to ask me when I would be at the store the next time, so that they could come for more book recommendations. An old grandmother with her three grandchildren came four times, while a little girl hugged me nonstop and asked me where I lived so that she could try to convince her parents to shift there. I was asked to provide extensive book lists to people who couldn't come back anytime soon, and people who frequented the store started to direct new visitors to me! Nothing made me happier than piling book upon book into already overflowing arms and insisting each time that they absolutely had to try it.

I found that the most amusing activity was studying all the people at the bookstore, which I really hadn't given time to before. Most of the visitors could easily be sorted using a little classification method I came up with once I started to notice distinct patterns. Here is a breakdown of the types of people that walked into Crossword:

The Family Units: These people were the most likely to buy books for themselves, as the parents wanted to cultivate a "reading habit" in their children. These parents can't make head or tail of books, and flounder around the store looking lost, while occasionally half-heartedly reading blurbs, dragging their children along.

The Members of Very Large Families: According to most people, a default, fool proof gift seems to be a book when you don't know someone well, especially if they're your relatives. This practice continues even though people don't seem to read all that much these days.

The Uncertain Newbies: Clueless college-aged people who wander about and end up spending more time on their phones rather than looking at the books themselves, but want to "start reading more" at the same time. If they did end up picking up a book, it would be titled along the lines of "How to Succeed in Life". (Funnily enough, to me at least, self-help books are rather popular in general).

The Misguided Souls: Why people would come to a bookstore in droves to buy markers and lunchboxes escapes me, but come they did.

The Birthday Party gifters: Parents who decide the best gift to give an impressionable young mind is a good book full of life lessons and inspirational quotes that they can value all their lives, preferably a biography.

The Gender Sorters: People who are convinced that there are different stories for girls and boys, and asked me whether I was sure this particular book was meant for a boy, because, obviously, I was a girl and I read only girls' books.

The Parasites: They frequent the store to crouch in corners and read in a frenzied manner to finish as much as possible, hopefully enough to last them till the next visit.

The Readers: Contrary to popular belief, this is the smallest, and rarest group to appear in Crossword. These are people who actually read for the sake of reading. It is rather difficult to spot them, so if you never see one, don't be discouraged, because they do exist.

And there! You have a complete guide to navigating the various strains of humans populating the bookstore.

There were so many other odd but equally fascinating things I noticed. For example, women were more likely to pick out a book for themselves, rather than as a gift for someone else. Men who entered the store tended to be old (around 40 or above), whereas women came in all ages. There are certainly more women than men who visit the bookstore, and I say this supported by the store's records as well. Crossword keeps track of their customers by having a table in which tally marks are added based on the person's time of arrival (in hourly time slots) and gender, which I found surprising.

The bestsellers are murder mysteries, the Harry Potter books, and a healthy dose of biographies written about important people added into the mix. Over half the space in the bookstore was used to sell things that hadn't the slightest to do with books at all, such as the aforementioned stationery, various kinds of containers, Captain America T-shirts, complicated board games, and disturbing plushies of Elsa from Frozen.

Though I loved the bookstore, I was quite disappointed by the collection they possessed. They had pitiful numbers of the more interesting books, only later instalments of a series more often than not, and worst of all, the lack of almost all the books I've loved. The store could almost be seen as a shrine to Rick Riordan or JK Rowling, for as far as the eye could see, shelves burst with copies of only Percy Jackson and Harry Potter. A tad more than necessary, I think.

Nevertheless, I cherish the time I spent surrounded by paper and words, the best place to be, and I already feel an intense urge to do it all over again!

- Tejas, 16yrs

### **WOLPE\***

Even after WOLPE has finished and four months have passed, I still remember every part of it. All the times that we thought we were ruined, the times we proudly showed off our finished product to the others, the times we burst out in uproarious laughter over a silly joke or when we had serious discussions over grave matters. WOLPE had it all!

The first time we worked together as a group was during the OPP project. The OPP project (Our Potter Play) happened just when Usha, Nandana, Prakriti and Devaki moved to senior school. We hadn't talked to them before and they were always the 'new' ones to us. Tejas, Asba, Anya and I thought of doing a Harry Potter play and very excitedly rushed off to start planning, Usha, Nandana and Prakriti wanted to join us too. They came with much excitement, but also wariness as we had never really mingled before. OPP brought us together in the best way possible and made all of us really close. The idea to retell Little Women came during OPP, because of how much we hated "Good Wives" (the second part of Little Women, sometimes sold as a separate novel).

The thing about "Good Wives" (apart from the atrocious name of course) is the absolutely awful ending. It was so awful that Louisa May Alcott received death threats after publishing it. We decided to take matters into our hands, since our help was badly needed, of course. And sure, have a little fun while about it, too! And that's when we were struck with the inspiration to film it and make it into a TV show! From then on, I was excited to learn how to make our script come to life, how it would be different from just acting out a play like OPP, and especially how to weave all the elements together to get the whole "movie" experience while watching it.

An interesting aspect to explore was the costumes! We wanted to recreate the 1850s fashion using the few skirts and blouses we had, but unfortunately the Marches were poor, and so their clothes couldn't be half as extravagant as we planned. Usha and I tried unsuccessfully to use the hula hoops to give the skirts their customary wide bases, which was achieved through contraptions of wire and metal in the 1850s. But this was hilarious as the hula hoops were in grave danger of slipping out of the bottom, which undoubtedly would have been extremely scandalous, and also because we looked like we were wearing surgical cones over our legs. The idea was abandoned, and instead, 3 skirts were worn over each other to look more like the hoop skirts, but this made us look thick, and vaguely sausage-like, so we resorted to wearing one skirt each. It fit better for our characters as they wouldn't have been able to afford those types of gowns, anyway. A bad case of sour grapes though, to be honest.

The dreary (supposedly) work of script writing started. We knew we couldn't have the girls preaching endlessly while sitting around, because, who would watch that? But we were faced with a problem, since if you cut out the endless preaching, there's really nothing else to the story. Luckily, we were in possession of boundless imagination and infinite enthusiasm, so new storylines took shape faster than we could blink. Soon enough, we weren't in control anymore, and it started to evolve by itself, growing and changing every time we edited it. We were left gaping at the intricate and wonderful beast we had summoned from the depths of our pooled ideas. Some of the mutations included: Laurie marrying Jo, numerous "happily ever afters", Chari and Ivan as crooks with money to be made, Mr. March a secret Confederate soldier, Amy being kidnapped in an elaborate process which included a sack over her head and ransom notes, and many others until we finally hit upon the perfect ending possible! All these changes weren't done at one time. After every episode was filmed and uploaded, the story kept changing.

Casting included having debates on who would make the perfect who, why some of the characters were excessively dumb and how we were going to manage with such few actors. Since we were only 6 people with a script sporting tons of characters, we each needed to take at least 4 roles! This regrettably brought up complications such as the clashing of the characters of the same actor in a scene. To battle this, a plan was devised which included creating a list of characters in each scene of each episode. This proved extremely useful, and which we used throughout the duration of WOLPE to make casting choices while fully informed. Unfortunately, we ended up having to cut characters completely from the story, as we just

couldn't manage.

And finally, when we were working on the Prelude (our pilot), we had a lot to learn. Through the process of filming and editing, we learned about lighting, keeping track of where the actors were in the previous shot, the surrounding noise and the importance of angles (and of keeping them consistent). Video editing was an amazing experience as we had the power (even with our less sophisticated "iMovies") to bring the effect we needed to our period drama. Our skills drastically improved through the episodes, and by the time the fifteenth and final episode rolled around, it looked like any other professional show! The shots became clear, stitching of scenes happened without any noticeable glitch, music set the required tone for the scenes, and our acting improved!

The project took us around a year to complete, and the bulk of our work happened during the summer vacation. We got to commandeer a house, and got a few days by ourselves there! As planned, we finished the most amount of work we've done, 5 episodes in 4 days! Working and staying together alone for those 2 days in Vasantha Aunty's house was the best experience ever! From sun up to sun down we worked, and planned.

WOLPE was unforgettable, especially since towards the ending, Venus, our dog, became heartbreakingly ill, and could no longer move around much. When the WOLPE group came home to film the last episode, just a day before Venus died, she was so happy to see everyone, she got up with much struggle and made her way slowly towards us and slept between us while we were filming. And so, Venus now appears in our last episode, and that was the last time she walked. WOLPE was an amazing project which we managed to complete in under a year but still made it look so neat, and we learned a lot of things we wouldn't have gotten an exposure to otherwise!

 $You \, can \, check \, out \, WOLPE \, from \, the \, link \, below \, if \, you \, haven't \, seen \, it \, yet!$  https://www.youtube.com/channel/UCiBbXHdUvIJR9D1WVI3KfeA/featured

- Srishti, 15 yrs

<sup>\*</sup> WOLPE stands for Women Our Little Play Episodes

Little Women is a novel by American author Louisa May Alcott published in 1868.

#### Title to come

I have always loved tinkering. Opening up something just to see what is inside is often riveting. And putting it back is equally exciting. When Sharad bhaiyya asked me where I'd like to intern, being a mechanic was what came to mind.

We went to a bike garage without having any knowledge about how to intern. Maybe all we could do was open nuts and bolts. But it still was fun to have a look at the garage, the attic full of scrap from the bikes, the removed gear and heavy chain from a bike. It seemed quite interesting to work there but maybe it was not enough. So I wondered "Why not do something simpler?" And I wanted something more rigorous. Maybe I could work on repairing a cycle. I told this to Sharad bhaiyya. We looked around and were lucky to find a cycle that needed fixing.

The minute I saw the cycle, I knew it wasn't going to be easy to repair it. It wasn't even moving. The derailleur was jammed into the spokes of the back wheel.

We started off by removing every removable part; the tyre, the brakes, the gear mechanism and the seat. Subsequently, we cleaned the frame with a cloth. It was then placed on the cycle stand that we had fabricated from a local workshop. We wanted to dismantle the wheel for which two spanners of the same size were required. We didn't have it but I discovered a small secret. Venky uncle's van was well equipped with a good tool kit. We also realised that it was better to remove the wheel only if it was needed, because it is quite difficult to put it back. But we were curious to see the inside. So Sharad bhaiyya held one spanner on one side and I was putting all out efforts to turn the spanner on the other side. We exchanged positions a few times till the central rod finally loosened. We saw nothing but loose ball bearings lying within a circular groove. They seemed to be held together by the grease that was applied on the inside of the groove. We had to put it back by carefully placing all the balls back inside and slowly slotting the rod back in place.

I also learnt how to remove the tube and put it back. It's a critical skill that one needs when one is learning to repair cycles.

It was then time to put everything back. We still hadn't figured out a way to fix the derailleur. We were expecting to understand what was wrong with it by putting it to test. We realised that the spring had lost its strength thereby allowing the chain to fall down onto the other gears. It needed to be replaced. We bought a new one. It was sleek. It moved back and forth smoothly with its spring holding it firm.

I dont know how to end it.

- Abdul, 14yrs

### On Nature

Nature has a never-ending future. I love the mountains, forest, wild animals, rivers and lakes. When I go close to them, my heart, mind and eyes go together and there is such happiness. This feeling makes my body ready for everything that I see. When I see a new thing, each time my heart says wow! There is a feeling to share it with others.

Since my childhood I have been with nature. I love nature more than anything. When I go to the mountains, I love the cool shade under the trees. I love picking and eating the berries that I know. Some of them are nice and fresh. I love the fresh wind.

When I am by the riverside and lakeside, it is amazing to hear the sounds of water falling. the non stop playing. I get an urge to jump into the water and swim for hours.

When I am in the forest, I enjoy being quiet like the animals and walk through the forest like them without disturbing other beings. I enjoy watching and observing the other creatures playing, fighting, dancing, eating, sleeping, flying and loving each other. It is fascinating to watch them.

- Das, 39 yrs

### Hold ideas lightly...

During the school year 2017-18, some Paarul children (Asba, Gautam, Srishti, Varun & Yashwant), planned to take up a project that required both Mathematics and some hands-on engagement. And after some discussions with us the adults in their space, they decided on building a Geodesic dome — a beautiful geometric shape that manifests in innumerable ways in the natural world (from honeycombs to molecular structures) and in the man-made world (from greenhouses to space habitats).

For first few weeks if the school year 2017-18, the children explored the mathematics and the physics of the simple geodesics, the strength and flexibility afforded by the shape, the economy of material and the ease of its construction, ranging from simple tents to large sports complexes. We visited a company that specializes in building large Geodesic domes (Metal Karma, who – fortunately – were headquartered in Bangalore) and saw first-hand the tools and the material for designing such structures, and interacted with an expert on the functional and structural aspects of designing such domes. We also visited an engineering college in Tumkur, which boasts a large 60-feet dome that housed their fully functioning 5-storeyed library, and also a large lawn inside the structure! We spent a few hours going up and down the structure, and getting exposed to many details of the design and the construction. The best outcome of this exposure was the innumerable questions that came afterward: The usage of glass panels that made the structure into a greenhouse, the balance between the reduced lighting vs the increased air-conditioning, the possible usage of solar panels, the suffocating heat at the top of the dome, the cost of greenery inside the structure, the leakage proofing the structure, etc. A very productive trip that exposed us to the aesthetics, functionality, utility, and economy of the structure, with all its plusses and minuses, and a holistic understanding of such structures.

Back at school, the children decided on building a much more modest Geodesic dome of ~20-feet diameter, with the initial goal of "something large enough for the younger children to play in or on, and something strong enough that the whole school to stand on". We procured some sample material from the city-market, and after a few days of working with Das, decided on 1.25inch mild steel pipes that are strong enough for our purpose and within our budget. In our enthusiasm we [mis-]calculated that the 100+ struts needed for the dome would be readied and the dome assembled by December 2017.

In August 2018, we procured the mild steel pipes and all the needed tools, and started the work with much enthusiasm... Each of the struts needed to be cut with a hacksaw to the strut length, the ends hammered into a flat lips and smoothened with a sander, holes drilled to the precise length, the ends bent to a precise 11.5 degrees (so they would form the spherical shape of the dome when assembled), and finally, the coated with primer paint to prevent rusting. These struts would be held in place by bolts and nuts to make the spherical shape of the geodesic dome.

After 2 months of the cutting, pounding, sanding, drilling, bending, painting and sweating, we had only the 10 struts needed for the apex of the dome! That was the first of the four layers planned, and each subsequent layer had increasing number of struts!! Oh, how naïve we were in thinking of completing all 100+ struts by December! It dawned on us that we have several months of work ahead of us, perhaps extending all the way to the end of school year in 2018. However, the enthusiasm and the involvement of the children were undiminished - perhaps working with the cool and strong feel of the metal pipes, or perhaps due to the excitement the loud clanks and the flying sparks - and the team kept going month after month to get the struts ready. The work was hard, but the mood was lightened with banter. Any children or teachers, who wandered in unwittingly to know what the ruckus was all about, were recruited for some help, unashamedly. Ultimately, it took more than a year to get all the struts ready for three layers of the dome, way beyond our planned schedule!

Other challenges started even with the assembling of the apex layer, with just 10-struts... The idea is to lay out the struts on the ground, and start assembling the dome from the top node – align the holes at the end of the struts at each node, insert the bolt and just tighten with the nut. We started with the apex node, progressively bolting and tightening the nuts in a clockwise manner. But, when the last node was reached,

the holes were off the mark wildly (by nearly half-a-foot)! One cannot just bend and tweak a 1.25inch steel pipe!! There was a sense of disbelief, and the immediate reaction was to find possible errors in making these struts; but a through rechecking, did not reveal any errors! We took the struts apart, and laid them out again, and started the assembly from a lower node, but now the apex holes would not line up!! It was puzzling that while the mathematics assured us that they should align perfectly, that they would not in actuality! Much later, it was Das who suggested that we not tighten the bolts at every node, but keep them loosely held until all the bolts were in place; it was not the strut errors as we had suspected, but the tightening of the bolts rigidly left no wiggle room for the latter nodes... The problem was our fixation (well, at least, my) on the correctness of mathematics that assured alignment! Once the problem is recognized, the

solution was readily available: We bolted the apex node, but left the nut only lightly tightened; as we progressed, we can push or pull struts to align the holes at each subsequent node so bolts can be inserted. Once all the bolts were in, the nuts can be tightened progressively, like tightening of bolts in a car wheel. It worked beautifully! When we mentioned this problem and its resolution to Kabir, his response was his characteristic laugh and his comment that while the global order (mathematics, I am sure he meant) was important, one must also stay attentive to what is happening moment-to-moment without getting taken in by thoughts and ideas. A valuable lesson!



The subsequent layers were no cake walk because of this discovery – we were getting caught in other challenges... In the subsequent layers, the holes would align (as we know what to do), but the flattened ends would not lie on the top of each other, making the straight bolt not go through, even when the holes aligned. We tried hammering the bolt in, but in many cases ended up shearing the threads on the bolt, making them useless! Here the problem was apparent the strut calculations were accurate, but there were minor errors that get introduced while in making the struts by hand – the lengths off by a millimeter, the flattening or bending of the edges were off by half a degree. Such seemingly small errors – to our dismay – had accumulated to an impossible level during the assembly of large number of struts. Well, that was a nice theoretical understanding, but it was a shocker after the year-long hard work by children! Reworking the struts is not simple, and even if attempted, the precision can be improved only using machine tools, which is beyond our skills and budgets. We let the problem simmer for couple of weeks, and again the solution appeared thanks to the practical wisdom of Das: He suggested the use of alloy steel bolts instead of our mild steel ones, as the alloy steel bolts - being much harder - can be forced to cut a thread inside the strut holes and hence can work with even misaligned holes. This solution was simply superior on other counts as well: Of course, it solved the misalignment problem, but it would also make the dome sturdier as each strut is held more securely. We finished the dome, after procuring the hardened automotive steel bolts and nuts. It was quite a sight to watch the final dome shape up, with a dozen children (thanks to all the curious children who volunteered) pushing or pulling the dome in different directions in order to align the bolt holes; the loose metal structure behaved like a blob of jelly, shaking and shifting and jiggling with each collective heave of the children. It was such a pleasure to get the final apex bolt in place! Once all the bolts were tightened, there the dome stood, light as a honeycomb bubble yet solid as a rock – as attested by dozens of children who climbed up the new structure right away.

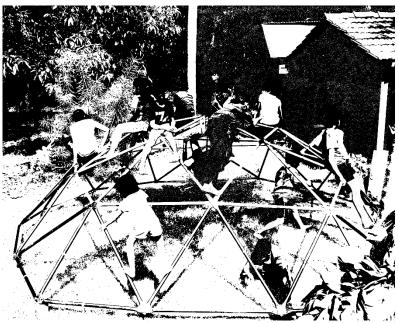
The last act was to paint the structure, and we hired an air-compressor and a spray-painting gun so the structure would get a smooth finish. The painting day dawned bright and dry, assuring us of a fairly quick completion of the multiple coats of painting. Many young children volunteered to have a go at painting, and were ready. When we switched on the compressor, to our dismay, we found that the spray-gun clogged – a bad cleanup job after its previous use! An hour was spent in dismantling and cleaning up, but just as we switched on the compressor for the second time, the power went off. It did not come back the whole day,

frustrating all our plans of painting that day! Near the end of the school day, one child came and asked me why we had not painted the dome and I explained the unfortunate situation. Her immediate response was, "Uncle, we could have just painted the dome with brushes" I was dumbfounded... Being pre-occupied with the money, time and energy that went into the preparations, and having concluded on the smooth painting with a spray-painting machine, I did not even see this simple solution! An insight from someone who was unburdened with conclusions!

This is where we are now: A skeleton of a dome that stands next to Bijitsu. Currently, children monkey around on it in their play time; they sit silently on it during the quiet time; some children even suggested we have our dialogues on the dome - sitting on or hanging upside down... What purpose it would serve in the new campus, I do not know. How it would change or grow over time, I cannot tell. The children – either the ones who built it so far, or new ones interested – may find ways of evolving it, and the dome may find its own form and purpose.

The learnings we had from the construction of geodesic will be with us: The mathematics and the physical principles of the dome and a holistic understanding of the artifact. The hard work over many months and the challenges during assembly taught us something even more valuable: To see and attend to the what is needed to be done at every moment, and to hold on to conclusions very lightly. This learning is not just about the Geodesic domes, but about the very process of learning.





### **Teaching Mathematics**

Observations of younger children in learning mathematics show that when children come with resistance or check-it-off-as-completed attitude it leads to negotiation battles that impede understanding and real-life connections. If progress is taken as the only yard-stick, one addresses this issue through such means like talking to the child about their patterns, lightening the work-load, restarting and build-up the complexity. While these means might have their significance, other meaningful possibilities emerged in exploring the topic with Kabir uncle. The exploration, insights and bringing the possibilities to children is shared below.

Teaching Math as a subject: Mathematics is a language communicated through symbols, numbers and shapes. If it's a language, can it be taught like a second language? In second language learning, the objects, situations and emotions known in their first language are leveraged and second language words are learnt to communicate the same. Second language alphabets, words and grammar are no-doubt necessary to learn along with the use of words. On the other hand, symbols in mathematics are communicating a concept - usually an abstraction with logic that is precise and unambiguous.

Children even as young as four years are already working with some level of abstraction that comes about from a sense of usage of words around them. For instance, a little girl was asked what she thought was "Even" Numbers. "Oh! Yeah! Numbers which are written plain". On asking her to write it on a piece of paper, she wrote a number using styles, curves and bubbles and happily declared that it's not an even number because it is bumpy. So, the kid was using word 'Even' to describe something flat and uniform! Just imagine what words such as even, odd, power, angle, positive, negative, prime, mean, average and parallel could elicit from the little ones — responses will be highly imaginative, creative and hilarious. Any abrupt introduction of math symbols and concepts are likely to create confusion. It is not uncommon to see children who do mathematical operations and solve calculations struggle with word problems. This is because techniques have been communicated and the abstractions in the child have never been probed and refined. Then there is also a problem of reading, listening and comprehension which makes it more complex as they grow. An appropriate introduction would mean that we not only help them learn math symbols but also help refine those abstractions to remove possible confusions. Word problems that reflect their world might be an area to explore with all kids of all ages to break this impasse that if not addressed might turn into a burden, indifference, diffidence, and even a sense of knowing without catching the essence.

"Challenge is to help them move from seeing to the articulation of the seeing through symbols, so that the mathematical vocabulary or symbol is never the thing. It is very important to use the natural language and stick to it till seeing becomes natural. It is necessary to understand what is being communicated by a symbol before using them. Would it be possible to look at non-math activities where there is natural state of attention to help them with the seeing?"

– Kabir Uncle

Taking a pause from formal math sessions and trying activities where there can be natural attention has helped in seeing math concepts in connection with real-world. We have tried games, stories, puzzles, art and craft, baking, surveys, coding, exploring math through projects like shop keeping, solar system, geospatial — all involving joyful learning. We have read wonderful small story books through the year. Math Curse by Jon Scieszka, The Lion's Share by Matthew McElligott, set of Sir Cumference Books by Cindy Neuschwander, The King's Chessboard by David Birch are some of our favorites. Children get excited about characters and engage in the story while learning math along the way. It has been wonderful to see some of the young ones prepare and orchestrate some of these stories as plays.

Learning and adult interaction: When children ask, "Should I solve your way or my mum's/dad's way?", "Should I do plus or minus", makes one wonder if we have given into the pressure of measuring progress by teaching techniques? At what expense? Do we quite know the difference between classes of problems and exercises? Striking a good balance between problem solving and exercises is something an adult should be alert to, otherwise learning becomes dull and mechanical. What goes into finding this balance? What should the adult be careful about?

"The role of an adult is to help the child in recognizing patterns and make real-life connections. Being fast in getting the answer is not important but helping the child to stay with the problem (even if it is a little longer) should be nurtured. It is important for an adult to pause when child pauses and not rush them. Adult should have enough interest to hold the question for the child so that insight into the problem can be had. Helping a child to look at the problem completely and stay with it will allow itself naturally to a process of inquiry and exploration. The exploration demands openness on the part of both the teacher and the student, clarity on the part of an adult without which one soon finds scrambling into giving how-to recipes to get the right answer. When they are stuck, instead of asking them to figure it out or hand over a solution, asking the right question to ease the path goes a long way in joint learning."

- Kabir Uncle

For adults, it can be very tempting to tell a child to follow a technique, especially when they are struggling. To hold off from saying "Do it this way" or "Don't do it that way" allows a child to discover something on his own. With alert engagement from an adult it is interesting to observe how the children approach a problem so differently than methodical approach! Later when we have conversations with them to hear how they ended up with any given answer, they are sharing their mathematical thinking in a thoughtful and thorough way.

As teachers and parents, it is critical to ensure that natural attention is utilized so that learning is not superficial and limited to techniques. Most subjects that apply mathematics involve varying levels of abstractions that are best grasped when the fundamental math concepts are completely relatable to real-world scenarios – the journey towards abstractions perhaps will then be enriching and enjoyable. How do adults learn to ask the right question such that the child can see the concept and relate it to real-life in a flash? A question that is worthy of keeping in the mind for all adults that engages in child's learning.

- Ganga, 45 yrs

### To live among books

There has been a great buzz at Shibumi with the imminent shift to the new campus and of course to a spacious and airy library. With the atmosphere of change and transition there had also been talk of overhauling the library system. The wise and much loved grey-beard Merlin (the library programme) had become increasingly sluggish and could no longer handle the growing library's needs. With no clear system in place the book categorization and labelling system had gone haywire; a library fire had burnt a whole shelf of books a few years ago and no one had a clue about the number of books gone missing over the years. And, on top of all of this with no vigilant librarian keeping watch, an army of potboiler types had snuck into the library, their presence threatening to obscure all the truly wonderful literature that is there.

Last year I was invited to, with Vishwanath's immense support on the programming front, do a revamp--lock stock and barrel, of the library before the Great Shift. An enormous mission had to be completed in a few short months.

The first question we asked ourselves was what sort of classification scheme we wanted. Should we should continue using the current Dewey Decimal System or replace it with one of our own making? Library classification is a way to enable its users to locate books quickly (fairly quickly) by using numbers (or alphabets) to represent the broad branches of knowledge and the levels of knowledge within each branch. The Dewey Decimal System, developed by the American Librarian Melvil Dewey in 1876, is a universally recognised and widely used classification system. It assigns numbers from 000 to 999 in a centurial fashion (100 for Philosophy and Psychology, 200 for religion 300 for social Sciences) to the ten primary branches of knowledge. Subjects within the branches are assigned decennial numbers within each primary number field (310 for sociology and anthropology 320 for political science and so on). The books are then the shelved in number order.

In theory, with dexterous tweaking (and whimsical interpretation) this logic is robust and easy to apply. In practice, however, it is a rather difficult and perplexing task. The DDC's Eurocentric and outmoded ways of classifying knowledge renders most of its numbers simply non-functional or largely irrelevant to a small library such as ours. Many genres and subjects that exist today hadn't yet emerged in Dewey's days.

One has to often pick one's way through the rubble of obsolete numbers, and choose, or even entirely replace a number that approximates a particular genre or subject. For instance "Books notable for illustrations" which would have been ideal for picture books is in the 100's under Computer Science and the all inclusive General Works rather than in the 800s, under literature. Clearly picture books hadn't yet emerged as a distinct genre of literature. The Krishnamurti books, under 'philosophy' in the 100s could be placed in 114 for Time, 115 for Space, 116 for change, 126 for "Self" or 128 for "Mankind" --there is division right there! In the DDC the lesser-known European languages in the 400s such Romanian, Rhaetian, Sardinian and Corsican are clubbed under 459 if one were to localize them they would be replaced with Kannada, Tamil and Malayalam and Telugu. This arbitrary quality is not helpful at all to the user.

Ignoring the cautions of co-librarians who warned us that no one had ever attempted such a formidable task, we set about modernizing and reworking the DCC. A couple of weeks, we assured our colleagues, were all it would take to alter a few things and have a system that we want. Easier said than done! Attempting to methodologically classify the vast and ever shifting nature of knowledge was like attempting to put gridlines on clouds. There was the constant pull and push of subject matter and format, as well as the interdisciplinary nature of many subjects

Interestingly, in the disassembling and reassembling of this system many deeply held assumptions about what constitutes literature and non-literature, what nonfiction is, and what kinds of nonfiction are within literature and outside literature, what constitutes genres and subjects surfaced for all of us. When we reached out to people for clarification, naturally their definitions tended to different somewhat based on their background. It was very subjective.

At some point, about three weeks ago we decided to freeze it. Though the Shibumi Dewey Decimal

as it is now called is still work-in-progress, many aspects of it feel very right - picture books have pride of place under literature, literary nonfiction and fiction coexist in harmony under literature and Krishnamurti has his own number in philosophy.

I now eagerly look forward to setting up the library on campus.

"My books hold between their covers every story I've ever known and still remember, or have now forgotten, or may one day read; they fill the space around me with ancient and new voices."

— Alberto Manguel, The Library at Night

- Karuna, 33 yrs

### Title to come

Each Tuesday morning this year I have woken up with extra spring in my feet. For almost the entire year Tuesday has been the day of the week when the Todis along with Das and I go for a nature walk. The piece below is something I had written after one such happy Tuesday...

There were some time table changes at school this week and courtesy the changes I was left with two options - either we do our reading of Danny The Champion of the World while we are on our walk or we skip it completely for the week. Almost too greedily I grabbed onto the first option hoping beyond hope that the children would be as keen about this plan as I was.

That day Das led us up one of the hills near the new campus. We had been here a few times before but the kids scrambled forward as if it were their first time there. It really was that time of the year when everything looks pleasing. The forests were dense, the lakes and streams were filled up, the trees were flowering, there was a chill in the air, enough to pull on a sweater and the sun was in and out of the clouds, teasing.

After about forty-five minutes of walking, Das and I discussed stopping soon to eat the snack we were carrying. To our luck, within just a few minutes we found the ideal spot. It was a small grassy hillock. Here and there rocks popped out of the grass, appropriately big to seat a child or two and appropriately far apart to forget there were others around. On all sides of the hillock was something so abundant to look at higher hills on one side and a forest on the other. There were no decipherable human sounds other than our own and as the group quietened down we were able to hear the sounds of the wind, the trees and the birds.

The kids all found a spot and settled in with their fruits in hand. As the little chatter slowly died out I picked the opportunity and announced that I was going to read a little to them right then. Fortunately there were no voices of disapproval. Taking this to be a positive sign I opened up to chapter 4 and began reading in Danny's voice.

'I listened and listened. I held my breath and listened again. I had a queer feeling that the whole wood was listening with me, the trees and the bushes, the little animals hiding in the undergrowth and the birds roosting in the branches. All were listening. Even the silence was listening. Silence was listening to silence.'

The moment seemed almost choreographed. The chapter was about the main character, Danny, a young boy of ten wandering alone in a deep dark forest, searching for his father. And here we were where we were.

The kids had become still and quiet. Unlike regular reading sessions where I can feel their eyes watching my every movement, this time most of them had turned away from me and were sitting looking at the visage. All of their hands were idle without my asking for it. I wondered if they were imagining themselves in the place of Danny. Were they imagining what it would be like to walk these woods alone?

I reminded myself that without them watching me, my voice was all I had.

'Are you there, Dad? Are you there?'

Danny must have been panicking. It would be dangerous if anyone other than his father were to hear him. My voice came out soft, restrained, yet excited. I wondered if the children had caught on to this slight fear I had attempted to convey? Had they maybe felt it for themselves? Whose voice were they hearing, mine or Danny's? I watched the questions that arose in my mind and continued reading hoping that I was making the most of this incredible opportunity I had been presented with.

- Vibha, yrs

### Title to come

When I moved to working with the youngest children in school this year I was struck by the way they went about their learning. One could see them engaged in different activities, largely unsupervised, in an unstructured environment. On a typical day, in our learning space, you can see the children preparing for a play, pretending to be doctors running a hospital, build a bridge or a cave in the sandpit, read a book or simply sit by themselves doing nothing. On the surface it looks

After moving from Kaze to Dojo I am struck by the beauty of the learning mind of our youngest lot.

When you enter dojo you can see children engaged in different activities, mostly unsupervised, unstructured. On a typical day in dojo you can see them preparing for a play, pretending to be doctors and running a trauma care centre, build a bridge/ cave in the sandpit or just simply sit by oneself and do nothing or read a book. It might all seem like nothing much. But there is a lot of learning happening. An outsider new to this kind of an open classroom it might seem like nothing much is happening.

Children mostly learn by looking, listening and observing and practise and build their skill during play. Knowledge and skill you will see are a consequence of learning and not vice versa. The free learning time gives them the opportunity for things to evolve spontaneously and to continue with whatever they are doing by themselves or with others even when problems or misunderstandings arise amongst themselves. They are happy to solve the problems themselves and seek adult intervention when needed. Since things are impromptu you can see that they are alert and learn the art of being in the moment with the situation as it unfolds. It's lovely to simply watch them play, to hear their ideas and to learn about the new worlds they create. It's also fun to see how creative they can be as they put their imagination to use in learning about the world around them. Play I feel is the key to learning. Nothing goes unexamined from small insects in the sandpit to what they are feeling when they are examining them. They learn to express themselves very clearly and listen equally when spoken to. When something is not working they are ready listen and try new things. Above all they learn be open with each other. When they ask questions they mostly don't expect an answer

Wanting to be occupied is a learnt behaviour. It is a part of our conditioning. Here you can see children do things without being driven by the need to be occupied.

m sure it needs a lot of rewriting but do let me know what you think... I have a feeling my expression has improved. But again that's me so...Over to you!

Love

- Soumya, yrs

# Ragi Farm-No 31R14 Somehow. I made a plough. I cleared the bund, planned. The planned. slowly the plants came up, But a boundicoot orte it Up. - AMAN(8)

### Rabbit

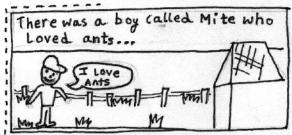
I am a little Rabbit
My feet hop hop hop
My ears flop flop flop

I have a funry tail and a fuzzy nose

I am all far from head toes



A Discovery ...



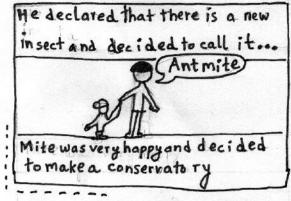














### THE END

- Athary (8)

Someday I want to Discover Something

GOT STUCK!

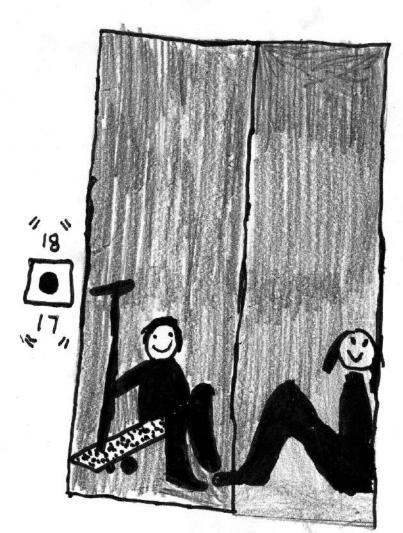
Once I got stuck in

the lift It was dark

My sister was with me.

We Playad 20 questions.

It was fun.



- Dhatri (7)

MILU

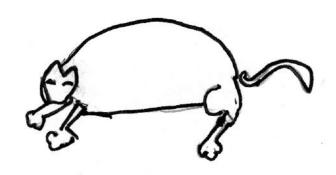
She is © to meet

people

She is 5 years old

She has brown and

White hair



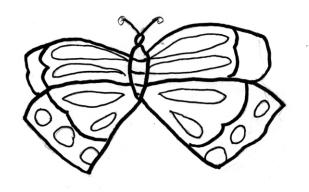
Diya, 8

# Solo time!

When I walk
grasshoppers hop!
when I sit
birds tweet!
When I look
so much tolearh Without a
Book!



-Khyathi (10)



It is the most friendly neighboorhood.

But It can be kept like a pet.

The caterpillars are hard to find because they hide inside leaves.

We went on a field trip one friday. We wanted to go to a forest but suddently we changed our plan to go to Butterfly Park in Bannerghatta. We found out that the park had entry fees and both soumya and Tanu did not have money. They borrowed 500 trupees from Gropi anna, and we could go. Inside a Park We saw many beautiful butterfly. It was very nice. We saw a video of the steple of a butterfly we saw dead butherfly collection.

Rida. 9

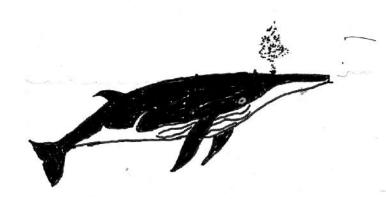
# The tail of a Whale (chapter 4)

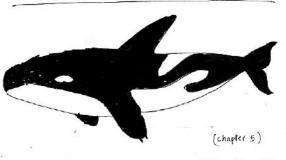
it uses its flippers to turn	helps it balance
	SWIMS by pushing The flukes up and down

It has a razorban.

A fin whale is the 3rd largest animal in the world.

OYCa
Ther are great
acrobats.
Ther are not known
to attack People.
Ther like to eat.
Squids.





Ritwik, 10

Fun facts about cats.

They sleep for at least 16 hours a day.

A cat is always alert,
danger is everywhere.
cats rub against you,
putting their cat smell on
you, they think they
own you.

MEOW

TUSHYA C73

MEOW



MEOW



MEOW



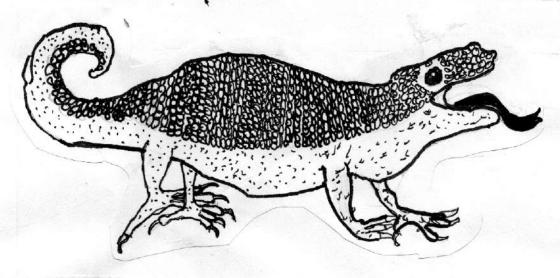
MEOW

MEOW

Tushya, 7

### The Gila Monster

I love lizards and gila monsters are one of the big sizards. The scientific name of gila monster is 'Heloderma suspectum'.



Gila monsters are found in North America and spend most of their time underground. They are about 56cm long. They are venomous.

And imaging they eat only 5-10 time a year.

- Zaid (8)

DUSING assembly my tooth and tongue were playing. My tongue wit my tooth very hard. My tooth was hanging!

I tried to help my tooth and it came out into my hand!

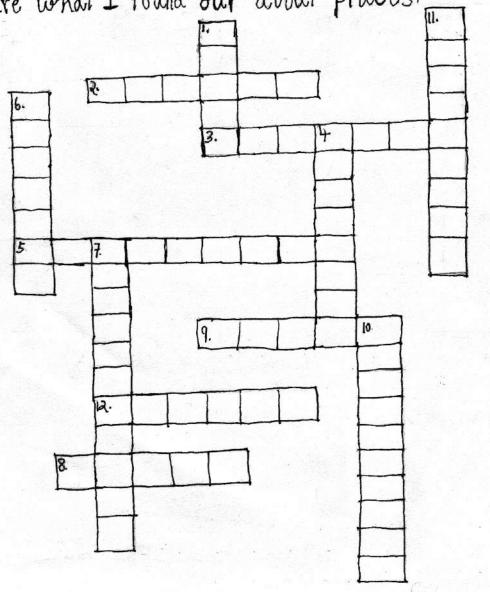
ZiAh(6)

# CROSSWORD

Learning about places is really fun. Sometimes when I find out about a place I imagine it in my mind. Before my family trip to Italy I had heard about Rome and imagined what it would be like. When I reached Rome I found some places actually looked like the images in my mind.

images in my mind.

I thought a crossword would be a nice way to share what I found out about places.



# CLUES

Down
I. Pumpkin is the national vegetable of this country.
4. The capital of this country is Dodoma city.
6. This country won the football cup in 1930 and 1950.
7. The largest city in this country is Zürich.
10. It is a landlocked country surrounded by Belgium, Germany and France.
11. The President of this country is Haliman Yacob.

Across
2. Another name for this country is Sverige.
3. The German name for this country is Osterreich.
5. The Aboriginal people are the original inhabitants of this Country.
8. Olympics is happening in this country in 2020.
9. The only country that doesn't have a quadrilateral flag.
12. It is the world's largest country.
Anoushka (llyrs)

# The Todi Sleepover

When everyone at school was clearing up I said to my friend "What a tiring day it's been! Luckily we will have some peace in sometime." Maybe not; she replied. "I heard that the Todis are having a sleepover, but they won't sleep here." "Oh no! So we won't exactly have a peaceful evening." I know. But let's wait and see how noisy it is "Okay." We waited.

During what they call 'quiet time' I saw two Todis running all around school. I turned around to look into Bijutsu to see if the other Todis were there. They weren't. I was puzzled. Later I saw the others running back from the vans excitedly and I realised that they were having a treasure hunt! They were running all around school! I wished I could join them. Later in the evening they played what looked like a fungame of football and frishee.

At night when I was in my pipe, eating dinner, I smelt roasted capsicum and onion. It was a heavenly smell! I put my head out and saw a huge bonfire and all the Todis roasting veggies over the fire. It looked amazing! I slithered all the way to the edge of the other tamarind tree to get a better view of them.

Soon after this they left. I was sad. I wanted a little more excitement with them.

- Dojo Snake

There is a family of snakes that I have been watching in the pipes of the Dojo roof. Tanu Didi and Sharad Bhaiyya had told us about them. It started with 3 snakes and the last time I counted them there were 6! I love sitting down and watching them.

No Bhayya (11 years)

# CHASED BY BULLS.

We had once gone for a walk to Bannerghatta forest. Das had shared whith us that the day before some elephants had been spotted nearby. So some of us decided that we would go for an adventure walk to try and spot the elephants. We even heard some crackers burst in the distance. The villagers had probably spotted what we were looking for. This made us even more excited about the adventure walk.

When we Started to Walk Das asked us to double knot our shoelaces and Stay in a group so it would be easy to make an escape if we needed to After Walking for sometime we reached a clearing and there we saw adout 50-60 bulls grazing. Das made some sounds hoping to chase them away but instead they started to chase us. Before we knew it we were running in different directions and everyone was screaming as the bulls rushed through the thorn bushes.

As I was waiting near a bush for the bulls to pass every second felt infinite. Suddenly I saw Something move in the bushes. My heart started beating fast luckily it was just Das who asked me to come to the clearing. As I started to walk I saw people coming out of their hiding places. I was relieved to see that nobody was hurt.

We were all so excited to go and tell the people waiting for us.

Lia, 12





A milking mistake



A daughnut dilumna



# Stubby Tails and no rattles, ominously plump and dipped in blue and silver sparkles, Muck colored, coiled sluggishly, not moving and staying like a rock. Slowly fat reptiles untangle themselves,

angry faces so huge and thick, monsters are coming my way -

Tongues flicking, venom on their tips - ONE SPIT AND YOU'RE DEAD!

You better not go close or ELSE.....

This poem was written by using words used to describe cotten mouth moccasin in the novel Hoot by Carl Haissen.

### DART GLIDER

Take an a4 sized paper and fold it into half.

and open the fold.

told the corners of the paper on both sides.

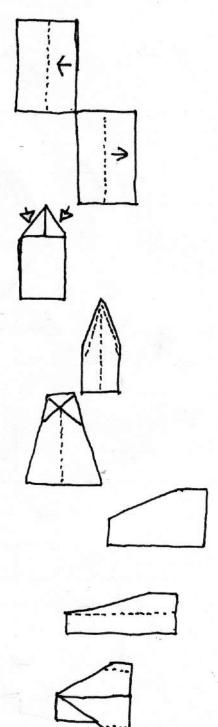
fold the folded corners of the paper.

fold the tip of the paper.

fold the paper into half.

fold the wings 20° on both sides.

fold the tip of the paper 2cm in.



-Nikith, 11 yrs

My pot is tall has leafy design's is a bit crooked isn't too wide.



Pottery

Making the pot was fun. I made a circular and flat piece of clay and then I made thick rolls of clay and coiled it on top. I smoothened the clay out. I put the pot inside a plastic cover, so I could continue it the next day. It took two days to make and it hasn't even gone to bake.

~om 10 years

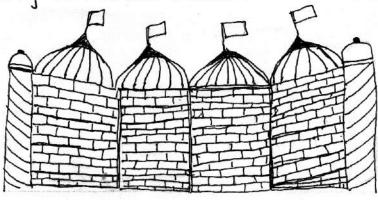
## BOOK REVIEW: TALES OF A FOURTH GRADE NOTHING

I read this book. It is by Judy Blume. The book describes the relationship between two Siblings. There are 2 main characters in this book, Peter and Fudge-Peter, the older Sibling is a little immature and is not very fond of his younger brother Fudge. Fudge is the younger Sibling and dees a Lot of naughty Stuff which makes Peter angry. One day Fudge gets Lost in a crowded theatre. Peter and his father ended up Looking For him. On another day their Pet turtle goes missing and Fudge knows something about it that he doesn't Want to tell. This Story is based in the U.S but it reminded me of the relationship between my Sister and me. The book was easy to read. It is a medium Sized book. It took me about two weeks to read this on my own.

~ Vibha

### Book Review: The adventures of Feluda by Satyajit Ray

Chander Pradosh Milter (Feluda), the main character of Satyajit Ray's detective series, lives with his young cousin Tapesh in Calcutta. He can write greek and has photogenic memorya smart, sensible detective who can figure out anything, sometimes With the help of others. He is tall and about 30 years old. One story from the series that I particularly liked was the Golden Fortress. It is about a boy called Mukul who recalls his past life. Along with singing old folk songs which no one around him has heard, he mentions the presence of treasure in a golden fortress. Now the people around are after him for the exact location. One day a boy who was mistaken for Mukul gets kidnapped. reluda and Tapesh have to make sure Mukul and the treasure are Safe. They tail Mukul all the way to Rajasthan, along with a new accomplice they meet along the way. I like the feluda stories because they have crime, murder, and mystery in them and so they are very interesting. There's just one little problem. Once you start reading the book you can't put it down. You will never feel bored while reading them. At least I didn't!



~Zain (10 yrs)