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Inside the Issue

Weaning children from digital learning towards other engaging activities

by Dr. Devasena Desai, Psychologist

Raising a 2E child

by Mrs. Nisha Kopikar, a parent.

THRUSTON – T-minus.... Lift off!!!

by Malhar Gandhe, Gifted Student

Hallmarks of Giftedness

A quick guide on to know about how you can identify a gifted child

A Glimpse into the KGERC Gifted Classroom and Nurturing Program
by Raghav Prabhu, Student, Level 1 Nurturing Program

Gifted Readers: Relationships with Books and Imaginary Worlds
by Ms Saaniya Padaria, Student Intern

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From the Editor's Desk:

Dear Parents of Pradnyavant (Gifted),

As we come to the end of another year of digitized learning, we also learnt new beginnings. As we approach the year 2022, we can look forward to a shift in all the normal things we took for granted and have the opportunity to create new perspectives. Gifted or Pradnyavant as we can call them in our Sanskrit language will remain as energetic and creative as before and as parents we need to continue to give them new challenges and opportunities. Setting new visits to friends' houses, overnight stays and new projects to explore as groups will help them to move from their cocoon. Relatives and grandparents can be a wonderful resource for them to explore on a regular basis so that they remain safe and cared for. Visits to extended family along with parents can also help them make the smooth transition from awkward online meetings to a meaningful connection and experience of being in the presence of others.

The Gifted will continue to challenge us in many ways and we parents patiently need to reinforce social norms that will help them in years to come while they associate with society for work, leisure and family.

Gifted require our support as educators, counselors and parents to ensure that the world is a safe and exciting place to interact and move them towards social interactions outside the virtual world.

Wishing each of you a happy new year 2022.

Devasena Desai.
Editor

Weaning children from digital learning towards other engaging activities

by Dr. Devasena Desai. Psychologist, Gifted Counselor. KGERC. Pune.

Welcome to the world of reality, we have been hijacked into the web of virtual learning and closed spaces. Children have been worst affected; for the lack of being engaged parents had to resort to ipads, mobiles, TVs and video chats. Having a child with high ability means they require additional reading, extracurricular activities as they can get disinterested easily compared to other children. Parents may often give up and give permission for longer ipad, TV or computer time just so that gifted people don't bother them. With the schools opening up slowly the habit of accessing the electronic gadgets still remains, with almost 20 months of lockdown in phases the addiction for screen remains and it is difficult to wean off that easily. Gifted children may dislike physical and social activities and these gadgets have also replaced whatever little social activities they were doing prior to pandemic. Parents may be at loss now that they may show signs of addiction where they are unable to do without the virtual world and its lure to engage them in meaningful and not meaningful viewing.

Weaning, learning and cleaning this habit is going to be a challenging job. The natural argument would be STOP using gadgets; instead if we can bring in new alternative activities it will help the gifted child. Secondly we need to UNDO the old habit and create a new one, just an instruction or multiple reminders will not be helpful instead we need to be the role model for the gifted child.

1. To keep electronic free hours at home, where every member refrains from using their gadgets and steps out for a walk/stroll in the neighbourhood, park, terrace or parking lot. Or even a car ride where conversations take place of their thoughts, feelings and actions of the day.
2. To switch off or keep silent the mobile and play a board game, sing karaoke, dance or do some craft work. Something that includes hand and eye coordination, knitting patterns, sticking wall paper, painting bathroom tiles with a new border design.
3. Make a list of indoor / outdoor activities that doesn't require a gadget. Eg. If you want some design and or idea from the computer - select, take prints, then sit.
4. To have a list of alternatives and rotate it every hour.
 - a. Indoor - painting, drawing, dancing, music instrument practice, craft, etc.
 - b. Outdoor - cycling at parking lot / neighbourhood, play date, hunt location for a story plot, give themes (imaginative locations), beach, mountains, by lanes, live problem situations (list society or house problems) children in groups to ideate how to overcome -
 - Food distribution during COVID-19.

- Water logged junctions (raining season).
 - Create a garden patch on the terrace.
 - Start a business for children of your age.
 - Introducing a new language using an audio app (Indian or foreign language).
- c. Create a dance routine choreography, so that they can show their cousins, grandparents.
- d. Have a list of relatives and friends who have unique specializations, like economists, data scientists, entrepreneurs, who can give guest lectures for the kids.
- e. Watch movies together so that the screen time is a family event rather than an individual pastime. Make an event where the kids with their friends or neighbours sit together. You make snacks beforehand that will help them to develop social skills. Show them how to send invites for the movie date, what kind of snack to keep, sitting arrangements and so on.

Parenting is a challenge but what the gifted need is to be challenged in meaningful ways. Parents need to show tough love and ensure that they seek deliberate ways that will make them move away from their addiction. Children always find ways to manipulate the situation so that they can continue watching videos, play games, and use the internet for personal viewing. Parents can sit and have a chat about their weaning process and ensure that the gifted is steering towards the alternative along with the family so that it's a cooperative process rather than a punishment.

Research Corner

Effectiveness of Math differentiation using an Intervention program for high-ability students, implemented in a mixed ability 5th grade classroom

Jaai Phatak, Devasena Desai, and Meenakshi Gokhale

KGRC initiated a research project on Math differentiation in Dr. Kalmadi Shamrao high school, Ganesh Nagar with 5th graders. Wherein, Jaai Phatak, Dr. Devsena Desai and Dr. Meenakshi Gokhale published a research article titled- "Effectiveness of Math differentiation using an Intervention program for high-ability students, implemented in a mixed ability 5th grade classroom".

In India, schools have 'mixed-ability classrooms' – students of various abilities in a single set-up; teachers use a 'one-size-fits-all' methodology to teach. The focus of present study was on introducing stimulation activities to students having higher abilities in Math. A Differentiation Program in Math was designed and implemented in a mixed-ability classroom. Students were divided into a control and experimental group of 20 each on the basis of a "Pragalbha scholastic test", assessing analytical, evaluative and application-based skills using the knowledge domain of Math and Science. At the end of the program, it was administered as a post-test (with a mixed-up sequence to reduce practice errors). The gain scores of the experimental group were significantly higher than the control group ($t=2.351$, $df=35$, $p<.05$). A qualitative analysis of the responses given by the high-ability students as compared to other students indicated more number of responses, higher creativity, and greater complexity in response.

Keywords: Mathematics, High-ability Students, Differentiation, Intervention Program.

[Click here](#) to read the entire abstract from Indian Journal of Psychology and Education Articles 2021 , Vol 11 , No. 2 , pp 16-22

Raising a 2E child

by Mrs. Nisha Kopikar, a parent.

It is a typical week night at the Kopikar household. Bedtimes with Neil, my 8 year old, involve reading a nonfiction book. Our choices range from The Elements of the periodic table, the Smithsonian illustrated encyclopedia of inventions, or Sapiens.

This night, Neil wanders the bookshelf and says “You know, I can’t find this book – The guide to dealing with average intelligence parents”. And that in a nutshell is life with a 2E child.

2E is Twice Exceptional – a term used for children that are gifted or have very high ability in a particular area or many areas of knowledge. These abilities are often accompanied by some neuro-disorders like ADHD, autism, Aspergers, etc.

I am a Montessori teacher for the primary years (2.5-6years). I ran a Montessori school between 2015-2017, where Neil was my default student. I had learnt in theory the power of the Absorbent Mind, whole body learning and respect for the child. As I observed his hyper absorbent mind, his fidgetiness, the hypersensitivity to loud sounds, too many people, I knew I needed to investigate further, and met a therapist who diagnosed him with Sensory Processing Disorder. He had challenges related to proprioception, tactile processing and fine motor skills. He started on Occupational Therapy and Speech therapy at the age of 2.8years to help him with these issues. Very early intervention is key in neurodivergent children, otherwise they suffer life-long due to lopsided development and are prone to anxiety



and depression as adults.

When I put Neil in a regular ‘international’ school, I struggled to cope with the implications of his SPD. Regular outbursts, alternate tactile defensiveness and tactile seeking, his nonchalant attitude towards rules and adult authority, his restlessness.

I was still trying to get him to conform for a few years, when his therapist suggested I get his IQ tested because his reading and processing abilities were off the charts. Neil turned out to be highly gifted with an IQ of 159. This is when I reached out to Dr. Devasena and Dr. Sameena at KGERC, who were so helpful and gentle in helping us find our path.

Giftedness accounts for a lot of Neil’s behaviour – gifted children don’t perceive cultural norms, and rules in the same way as neurotypical people. He has no fear of authority and is constantly questioning rules

and regulations. This was not looked on favorably in his previous school, that rewards neurotypical behaviour. Last year, during lockdown, I started the process of looking for an alternate school, which I have found at The Aditya Birla Integrated School that Neil currently attends. Every teacher is a special educator and they are kind but disciplined, which Neil needs currently. The school has helped a lot with his hand-writing and ability to focus for longer periods of time. I am aware that he will outgrow this school too very soon, and we will have to again seek.

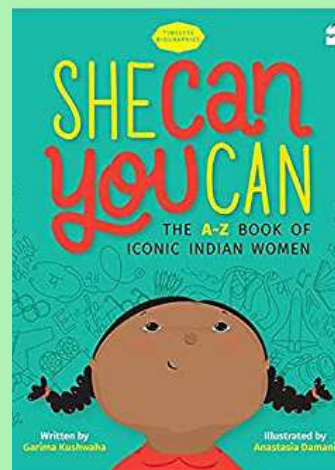
We don't know how to do something until we actually do it. No amount of research or intellectual understanding can prepare you for the emotional aspects of raising a neuro divergent child. I've learnt slowly to accept Neil's outbursts and listen to his view first rather than imposing my own norms. Neil has a very strong sense of justice and reason that defies conventions. To enforce them is to stifle him and create greater imbalance in his future. So we dialogue a lot to understand each other rather than me imposing any punitive action.

I've learned so much as a person, not just a parent. To listen, to seek, to dialogue and reason. It's been challenging to do this as a single parent but there is a freedom to just follow my own intuition. I've not done it on my own. I have had to build my own village – that I have immense gratitude for. His therapists, his teachers, our nanny.

It's a tightrope, a daily challenge and a joy.

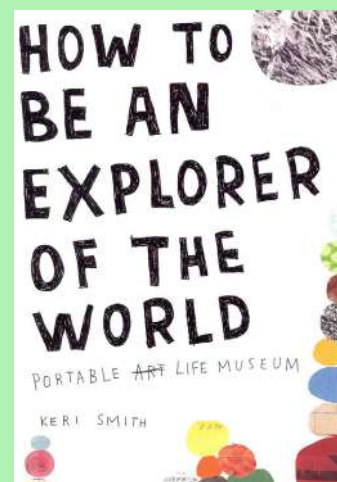
Mrs. Nisha Kopikar is a parent of two children, staying in Mumbai. She can be reached at nishakopikar24@gmail.com

Books to pick up now!



She Can You Can: The A-Z Book of Iconic Indian Women: 1

An alphabetical list of famous Indian women, one for each letter of the alphabet. A 500-word summary and an illustrated sketch are used to depict each character. The accomplishments of pioneering female scientists, doctors, activists, painters, dancers, astronauts, comedians, political leaders, and many others from many walks of life are featured in this inspirational and encouraging book.



How to be an Explorer of the World

Artists and scientists both observe, collect, document, analyse, and compare the world around them in unexpectedly comparable ways. Keri Smith encourages the reader to explore their surroundings as both artists and scientists in this intriguing guided diary. Readers will love exploring and discovering the world through this book.

Giftedness from KGERC

Science, Technology, Engineering, Mathematics, Arts, Theatre, Management, Leadership, Finance, and all other fields have their fair share of intellectually gifted personalities. We look into the achievements and inventions from students of Kaveri Gifted Education and Research Center!



Janhavi Konnur, Mr. Paresh Shinde, Riya Kulkarni

Young Inventors, Student

Riya Kulkarni who is a part of the Gifted program recently made something interesting with her classmate, Janhavi Konnur with the support of the school's ATL (Atal Tinkering Lab). Both of them are currently in 10th grade at Dr. Kalmadi Shamarao High School, Ganeshnagar, Pune (KHSB). They were really concerned about the increasing use of plastic and the pollution created due to it. And they were keen to provide a solution for this menace.

Every Year, the Atal Tinkering Lab Marathon – a national level innovation challenge is organized for children across the country who have identified a community problem and have created ingenious solutions to address these challenges of national and global importance.

This year's ATL Marathon draws inspiration from Aatmanirbhar Bharat and aligns itself with the 17 goals of the "2030 Agenda for Sustainable Development" (LSDA) adopted by all United Nations Member States.

The Atal Tinkering Lab Marathon was the right platform for these two students to work on their problem statement. They decided to come up with what they called 'A Reverse Plastic Vending Machine'. When asked what was the immediate trigger for working on such an innovative machine, Riya said, "Janhavi & I had gone on a school trip once and there we saw people throwing trash all over the place...we were very disturbed by watching people being so inconsiderate and apathetic towards our environment. Everyone is aware that plastic is extremely hazardous to our environment, and still improper disposal of plastic is widely noticed."

They felt that eliminating plastic usage entirely is not possible and so wanted to brainstorm on more effective ways of disposing of plastic and prevent it from being scattered in public places. They were aware of the plastic vending machine in front of Church gate, Mumbai, but its initial price seemed expensive which prevented the existing machine from mass production. Along with the help

of their mentor, Mr. Paresh Shinde (ATL Incharge at KHSG), decided to make a REVERSE PLASTIC VENDING MACHINE that would be cost-effective as well as user friendly. Making it accessible and easy was one of the main goals of this project.

The participation in the marathon involved communicating their idea along with sharing their trials and experiences that came along with working on the idea. Their idea was selected in the top 150 teams of India and then moved to the prototyping stage. Soon, they were in the top 30 girl teams of India. Dell technologies and Niti Aayog provided them with mentors to guide them on programming and product development. In their own words, 'this was an amazing venture, and definitely an unforgettable experience!'

World Mathematics Day!

On the occasion of World Mathematics Day on 22nd December 2021, the entire unit of Kaveri Gifted Education and Research Center salutes Srinivasa Ramanujan Iyengar. The world celebrates Mathematics and its applications on the birthday of The Man who Knew Infinity!

यथा शशि मयूराणां , नागानां मणयो यथा ।
तद् वेदांगशास्त्राणां , गणतिं मूर्ध्नि विरतते ॥

- ज्योतिषिचार्य पंडति गोपालजी

(Like the crest of the peacock, like the gem on the head of a snake, so is mathematics at the head of all knowledge)

THRUSTON - T-minus... Lift off!!!

by Malhar Gandhe, Gifted Student, Standard 9, Dr. Kalmadi Shamarao High School



Space! It's incredibly huge, vast, rather unimaginable. There is so much out there that we can't even imagine, but due to technology and science, we are progressing each and every day. It's not easy to make the technology and discover the science behind the celestial object. We send rockets, satellites, probes, and rovers to study the objects. Basically, this is what we call "rocket science".

My name is Malhar Gandhe. My interest in this field motivated me to make model rockets. You might have seen videos of launching model rockets on YouTube. When the amateur rocketeers build rockets, they buy the rocket motors from hobby shops. But, I make them myself. That is the most difficult part. The reason it's the most difficult is that

when it's burning, the temperature of the rocket motor reaches to approximately 400 degrees Celsius. This is why, indeed, to take materials which can withstand that kind of temperature. This idea of making a concept company hit me when I was watching a video in the June of 2020 of SpaceX landing their rocket back. That's incredible, right? So I studied a lot about model rocketry from different websites and books. The book which helped me a lot is "*Design, Analysis, and Test of a High-Powered Model Rocket*".

Finally, I developed a concept company in November 2020 and named it **THRUSTON**. I developed this company because I wanted to start early to develop the technology that's never been made. I want to be the first and the best in which I pursue my interest. So, it builds and launches model rockets.

From here, my journey started. I have launched 6 rockets and executed 11 rocket motor tests. The first 5 rockets failed. Every rocket had some problem. Either the fuel composition was not correct or the rocket body was too heavy or the igniters did not work. But on the 6th launch it finally flew (but not in a straight vertical direction, it flew sideways). The reason it flew sideways was that it was unstable and did not have guidance to send it straight up in the sky. But never mind after 6 tries I have found out many mistakes that I can correct. After all, never give up till you succeed.

One of the major problems while doing these experiments is funding.

Of course, my parents are supportive and have offered me the means to pursue my passion. As model rocketry is an expensive hobby, the fuel and the fuselage supporting it is very expensive. And so I wanted to take on some of this financial liability. This is where my earlier interest in exploring the stock market came of use. My parents have lent me the capital and I personally invest in the market and manage the expenses with the profits that I earn from the stock market.

More on, the chemicals needed for making the fuels such as potassium nitrate, sulfur, charcoal, ammonium nitrate, ferric oxide, etc. aren't easily available. These are the chemicals which are highly flammable when mixed together, that's the reason I have to make the fuel in an open area. There are many other problems, but these were the major ones. These are the experiments/projects that make me energetic.

I am very passionate about the things I do. People come up with great and innovative ideas in the evening but again in the morning they have the same routine. Dreams will remain dreams if you don't take actions to make it a reality.

As Elon Musk says, "*I could either watch it happen or be a part of it*". ***I am certainly gearing to be the latter.***

Mr. Malhar Gandhe is a Gifted student in Standard ninth from Dr. Kalmadi Shamarao High School. To know more about Thruston, his concept company, visit their [website](#) or [YouTube channel](#).

Hallmarks of Giftedness



Unusual
Curiosity and
asks unusual
questions



Keen Sense of
Humour



Need for Variety
and Novelty
while showing
creativity



Learns things
and concepts
rapidly/easily



Indifferent to
time constraints



Avoid traditional
problem solving
methods



Perfectionist



Concerned
with justice &
fairness



Avid reader



Plays with
mechanical
objects without
training



Excellent
Memory



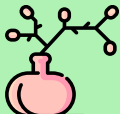
Self Motivated



Perseverant
when interested



High
Emotional
Sensitivity



Has a wide
range of
interests



Independent
Thinker



Questions
Authority

What does a child experience in a KGERC Gifted Classroom?

Raghav Prabhu, Level 1 Gifted Nurturing Program, gives us a glimpse inside his classroom!



Kaveri Gifted Education and Research Center was a wonderful experience. Our Science session began with a discussion about plants. Different necessities from our earlier grade textbooks came to mind. Later, we conducted experiments to determine why these are the necessities of a plant. We performed experiments on crystallization and were given life situations in which we had to find our way out.

We participated in an amazing math session a few months later. We experimented with various numbers, basic operations, and played many math games like the broken calculator, the tax collector, etc.

We discussed what we saw in certain pictures and videos in other sessions and recorded our observations. In KGERC, we learned how to express our emotions, understand people, communicate with them, etc. It was like taking a crash course in emotions.

We learned how to draw characters, make diaries, and add pictures. When I made my pictures and pasted them into the book, I loved it the most. As they say, "a picture is worth a thousand words". We learned about the Panchakosha model and the elements that make up our Universe. Firstly, we compared a remote-controlled car with the parts of our body, then with the Panchakosha model. We talked about our Prakriti and what food is good for us and what is bad for us. In essence, we learned how to develop ourselves in these sessions.

We all got a topic and surveyed it in groups. It was my favorite part of the year at KGERC. We were taught how to ask what we want and how to deal with people, which I thought was very important and interesting since no two humans are alike.

KGERC was a great experience, in a nutshell. As I learn how to become who I want to be, I have a clear idea of what my goals are and how to approach them.

Check out our website for more details about the gifted nurturing program.

[Click here](#) to know more about the Objectives and Structure of KGERC's Nurturing Program.

For more information about gifted nurturing programs, contact our Gifted Mentor now!
Ms. Sameena Manaswala - gifted.mentor@kaveri.edu.in

Binge-able Bits for you!



Elizabeth Ekadashi

The story of two siblings, Dnyanesh and Mukta, who have lost their father and are pushed to financial distress. This forces the family to sell their bicycle, Elizabeth. To retain the last memory of his father, Dnyanesh and his friends explore business ideas and set up a stall. This film presents creativity in children and has valuable takeaways.



The Big Bang Theory

The Big Bang Theory is a teleseries showing a woman helping out socially awkward physicist neighbors explore life outside the lab while the viewers are shown what these brilliant physicists do in Caltech along with their friends - a Mechanical Engineer and Astrophysicist. This sitcom is a comical take on a "nerd's life."

Gifted Readers: Relationships with Books and Imaginary Worlds

by Ms Saaniya Padaria, Student Intern from FLAME University



Do you like to read? How does reading matter to you? Mostly everyone yearns for a book that's fun, riveting and either informs us or inspires us to imagine. Similarly, these are some questions we asked our gifted children and teens at Kaveri Gifted Center, which resulted in stimulating conversations about how reading shapes their lives and mindsets. Similarly, reading as a medium is one such form of escape for gifted kids and teens - even more so, in the intellectually stimulating conversations that books can draw them into that they might not find in their social lives. Such conversations, either in the form of information or mysteries, provide them with the medium to explore much more in-depth than they would with certain topics at school or on the playground! Gifted children's high IQ level can often mean that they're searching for higher levels in various mediums - whether those be personal hobbies, subjects they want to learn, social-cultural activities or sports.

It is in one the world of dragons and goose-chase mysteries that our children at Kaveri Gifted Center find their social entertainment and relatability that is missing outside. Siyoni, a vivacious teenager, talks about how books are her preferred medium of information and how the genre of murder and mystery leaves her wanting to know more – keeping her spellbound at every twist and turn. Thirteen-year-old Karan talks about how he has varied interests in reading genres – while on one hand he is intrigued by adventure and fiction that has action, he also indulges in knowledge through encyclopedias.

Most of our children find solace in reading, whether they have always been immersed in it from the start or have taken the lockdown as a period of trying new things. Books seem to give them avenues of topics to have conversations about, which is what I saw in their excited faces as they found common authors that they liked among each other.

While Harry Potter, Pseudonymous Bosch, the Twilight series and the Hunger Games are reads that are commonly found in their age bracket, they explore much more than just what they're usually prescribed; Agatha Christie, Sherlock Holmes, Jeffrey Archer being some of their favourites. Their collaborative interests in science, mystery and fiction often show in their preferences for mythological fiction, science fiction, thriller and much more. The children at the Gifted Center enhance reading with the addition of audiobooks, comics, web toons and mangas in this digital world. A creative exploration through social media has seen the rise of 'Insta-Poetry', where art and writing intersect to create

beautiful poems accompanied by illustrations that serve to deepen their understanding of certain metaphors in the poems. Likhit, a bright and curious teenager, talked about how he's interested in mostly fiction – a lot of it to do with fictional worlds and how his experience has also expanded to learning 3D animation and filmmaking on his own.

There are many sources discovered for the books that are being read – some being involved parents, school teachers or even a Discord book club! We found that there was a shared joy in understanding one another through one's book choices and how everyone was willing to open up and learn about other recommendations. Many of our children talked about how they found the authors' perspective on the world a fresh take that they hadn't considered before – much like how The Hunger Games provided a political stand on how the real world can actually be as controlling, if not more and how freedom is but an illusion. Conversations about learning from books led us to discussing how they relate books to avenues of understanding other people better through relation with the characters.

Thus, something as simple as the act of connecting and understanding with the authors and ideas can lead to so many questions and perspectives that enable us, as gifted parents and educators, to engage with how their minds work and how they collaborate with different ideas and information to analyse and learn from their reading.



**Our next newsletter out in March 2022!
Stay tuned! For more information contact
us through gifted.inquiry@kaveri.edu.in**