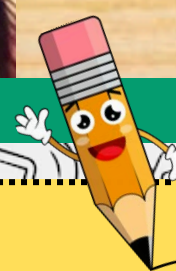




Bal Bharati
PUBLIC SCHOOL
Sector 12, Dwarka

MATHOMANIA

MAY 2024



FROM THE PRINCIPAL'S DESK

'Pure Mathematics is, in its way, the poetry of logical ideas.'

- Albert Einstein

The reign of mathematics extends far beyond mere numbers, encompassing a diverse array of fields. The study of this multifaceted discipline is crucial for understanding the myriad experiences of life.

The inter-connectedness of the world resembles a tightly woven string, enabling us to unravel the universe's mysteries, from the shape of the planet to the properties of atoms. Mathematics serves as the foundation for infrastructural marvels, guiding engineers in constructing vital infrastructures, aiding researchers in proving hypothesis, assisting politicians in assessing voter demographics, helping doctors prescribe precise doses of medicine, enabling pilots to navigate, and allowing athletes to track their scores. Indeed, mathematics is the cornerstone of problem-solving and logical thinking, seamlessly integrating into every aspect of our lives.

The school diligently implements the provisions of the National Education Policy NEP 2020, offering various programs to enhance students' analytical and numerical proficiency. These initiatives include Olympiads, Quizzes, Experiential Learning Modules, and School Enterprise Activities.

Suruchi Gandhi
PRINCIPAL



"UNLOCKING POTENTIAL" THE SIGNIFICANCE OF OLYMPIADS IN EDUCATION

In order to encourage students to strive for academic excellence and excel in subjects beyond their regular curriculum, Bal Bharati Public School Dwarka conducts Olympiads at various levels which help students challenge their own limits, in specific subjects such as mathematics, science, language, and more, providing them with recognition and encouragement.

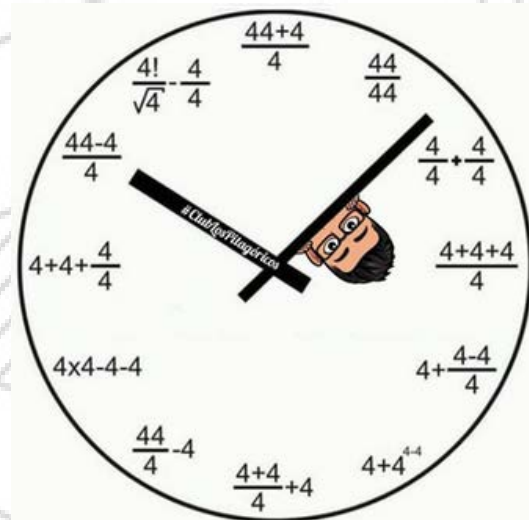
- Students are also greatly benefited as they foster interest and enthusiasm in subjects beyond what is covered in the standard curriculum, encouraging students to explore and delve deeper into various fields of study.
- Olympiad questions often require critical thinking and problem-solving skills, which help students develop these essential skills early on.
- They instill a healthy sense of competition among students, motivating them to improve their knowledge and skills to perform better.
- Participation in Olympiads can enhance students' profiles when applying to colleges and universities, demonstrating their dedication and proficiency in specific subjects.

Overall, Olympiads serve as one of the tools in the toolkit for identifying children for different levels of academic programs, as they are used in conjunction with other assessment methods to ensure a comprehensive approach.

Pooja Bhatia
PGT (Math)



TIMELOGIC!



**TIME TOLD IN
EQUATIONS:
WHERE MATH
MEETS EVERY
MOMENT**

Why shouldn't you let advanced math intimidate you?



It's really as easy as π !

SOF IMO

International Mathematics Olympiad



"SUCCESS IS NOT ABOUT THE DESTINATION, BUT THE JOURNEY. IT'S THE SMALL STEPS TAKEN WITH DETERMINATION THAT LEAD TO GREAT ACHIEVEMENTS."

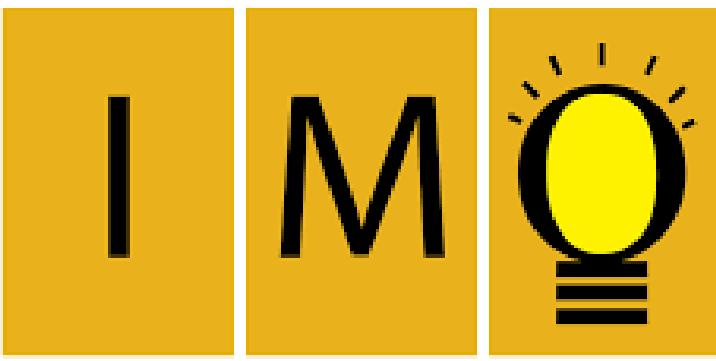
OUR YOUNG ACHIEVERS!

Anahita Maheshwari
Adrika Gupta
Ayansh Shukla
Panshul Sethia
Jayesh Tholia
Reyansh Khattar
Yedhant Sharma
Kabir Gahlot
Yuvi Kharb
Monvee S Chauhan
Tavish Grewal
Princy
Neerav V

(2023-2024)



Viraj Sharma
Priyansh Lathar
Aakarsh Arjun
Adhira Maheshwari
Rehat Sharma
Atharv Bhardwaj
Lavik Goyal
Vedant Arora
Aveer Kanwar
Suryansh Parida
Ayaansh Panjabi
Vivaan Punia
Siddhesh Kumar



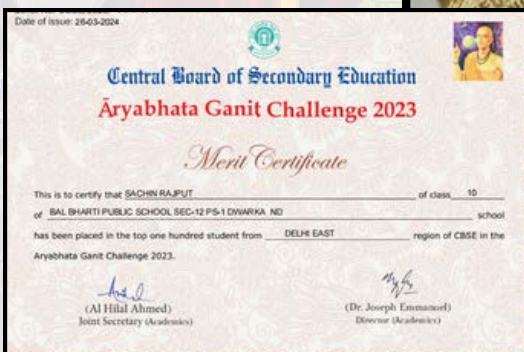
SOF INTERNATIONAL MATHEMATICS OLYMPIAD

MAVERICKS IN ACTION

Aditya Prakash
 Advay Yadav
 Ananya Gupta
 Anjali Garkoti
 Aaryav Makol
 Yuvaan Gupta
 Marcellina Barman
 Rajnarayan Datta
 Saanvi Choudhary
 Shauryaveer
 Ishaan Chattopadhyay
 Nishtha Mishra
 Agrim Jain
 Neeraj Garkoti
 Rohan Gupta
 Paarth Nijhawan

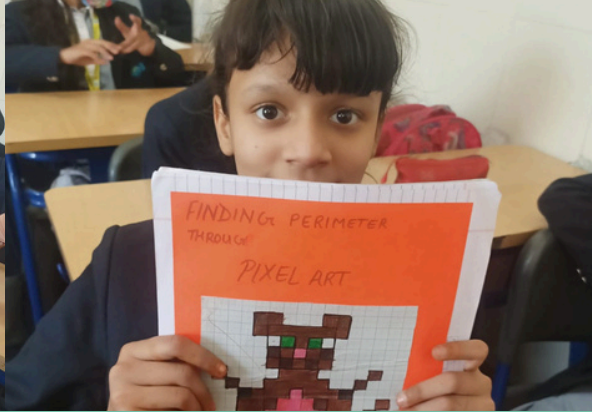
"THE ONLY LIMIT TO THE HEIGHT OF YOUR ACHIEVEMENTS IS THE REACH OF YOUR DREAMS AND YOUR WILLINGNESS TO WORK FOR THEM"

Mukul Katiyar
 Shashwat Singh
 Shekhar Gupta
 Riddhesh Kumar
 Ananmay Gupta
 Atharava Panjabi
 Jayesh Vijai Vargia
 Maulik Goyal
 Abhishek Kumar
 Pratyush Yadav
 Aditya Chandak
 Saksham
 Suyash Sharma
 Sahil Jha
 Navya Sinha
 Ananyaj Gupta



So incredibly proud of you and everything you have accomplished...

THE ART OF



Math, oh math, you're a curious path,
 Where numbers and figures meet.
 In your realm, we find order and calm,
 And patterns that endlessly repeat.
 From the simple addition of one plus two,
 To the mysteries of pi so sweet,
 Every equation, a new creation,
 A puzzle for minds to greet.
 Algebra, geometry, in harmony,
 Dance to a logical beat.
 With every problem that we solve,
 Our understanding grows complete.
 In world of fractions, we slice, and we share,
 Parts of a whole, from here and from there.
 A pizza, a pie, cut into sections so fair,
 Each piece a fraction, with equal care.
 Half, quarter, or third, each a precise part,
 Adding and subtracting them is quite an art.
 With numerators above,
 denominators below,
 Together they flow,
 in math's wondrous show.
 So, here's to math, our guiding light,
 In a world that's vast and wide,
 For every answer we seek to find,
 In numbers, we take pride.

Art and math might seem like two very different subjects, but they actually have quite a lot in common! Both involve patterns, symmetry, and structure

$$\begin{aligned}
 a &= b \\
 a^2 &= ab \\
 a^2 + a^2 &= a^2 + ab \\
 2a^2 &= a^2 + ab \\
 2a^2 - 2ab &= a^2 + ab - 2ab \\
 2a^2 - 2ab &= a^2 - ab \\
 2(a^2 - ab) &= 1(a^2 - ab) \\
 2 &= 1
 \end{aligned}$$

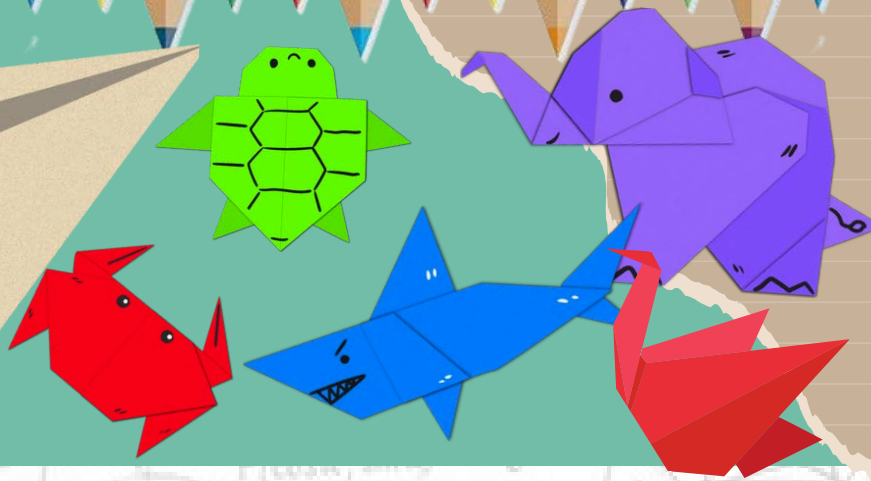


"Lost in the maze of numbers, searching for the right turn, where did I go wrong?"

Khanak Gupta IX B

THE ELEGANT FOLD :

MATH MEETS ORIGAMI



Origami, the art of paper folding, might seem like a simple pastime. But unfold its secrets, and you'll discover a surprising amount of math hiding within its crisp creases. Geometry forms the foundation of origami. Folds create angles, lines become planes and you start to explore concepts like symmetry and congruence.

Komal Sharma
TGT (Math)

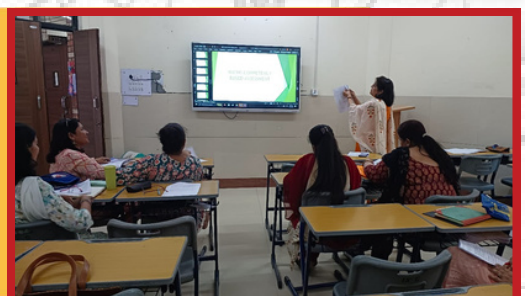


COLLABORATIVE SPARKS



Competency Based Assessment Workshop was conducted by Ms Shaveta Manchanda TGT mathematics on 26th April 2024.

The purpose of the workshop was to understand the role and importance of assessment in the new competency based curriculum. This is undertaken to promote the learning and development of students and test their higher order thinking skills such as Analysis, Critical thinking and relating concepts.



QUANTUM VERSE

POETRY IN NUMBERS

MATH AND LIFE

Life is not just your age in number,
It is a set of fight and surrender.
Keep on adding moments of joy,
And subtracting fears and foes.
Multiply your emotion of helping others,
Divide your happiness among others.
Whether it is large distance of Sun from Earth
Or charge on a small electron,
Standard form of a number
Comes into picture.
To teach us whether high or low,
Keep yourself same although.
Probability of success may not always be high,
But number of trials should exponentially rise.
Math teaches us to be simple and precise,
Solve the problems and set your standards high.
Never be afraid of the number of steps,
Eyes should be set on the solution tight.
Life is like a real number
May be rational or irrational.
But definitely you have a place,
In this galaxy of stars and planets.
Fractions of joy and sorrow
May be different for all of us
But blessings of God are
Constant and consistent for everyone.

SHIWALI BISHT
TGT (MATH)

ALL YOU NEED IS

$$y = \frac{1}{x}$$



$$x^2 + y^2 = 9$$



$$y = |-2x|$$



$$x = -3|\sin y|$$



YOGA AND MATHEMATICS

The relationship between math and yoga lies in their shared principles of harmony, patterns, and balance. While yoga aligns body, breath, and mind for inner balance, mathematics seeks to understand patterns and relationships in the external world. Both require focus, discipline, and attention to detail, with some yoga practices even incorporating geometric patterns akin to mathematical principles.



CHECK YOUR IQ !
How do you go from 98 to 72
with just one letter?



GAME THEORY UNVEILED

NAVIGATING THE MATHEMATICAL HARMONY OF PLAY



Games have held a significant place in human culture for centuries, offering not just entertainment but also serving as fertile ground for delving into mathematical ideas. From ancient board games like Senet to contemporary video games, Mathematical concepts often form the foundation of the rules, strategies, and mechanics that define these games. Game theory, a mathematical branch focused on analysing strategic interactions among rational decision-makers, offers valuable insights into competitive games. Strategic games like chess, Go, and tic-tac-toe require players to anticipate opponents' moves and devise optimal strategies accordingly. Educational games and apps designed for children frequently incorporate mathematical challenges and puzzles to make learning enjoyable and interactive.

Ratika Singh
TGT (Math)

$$\log (\text{😄}) = \text{💧} \log \text{😄}$$

IF:

$$11 + 11 = 4$$

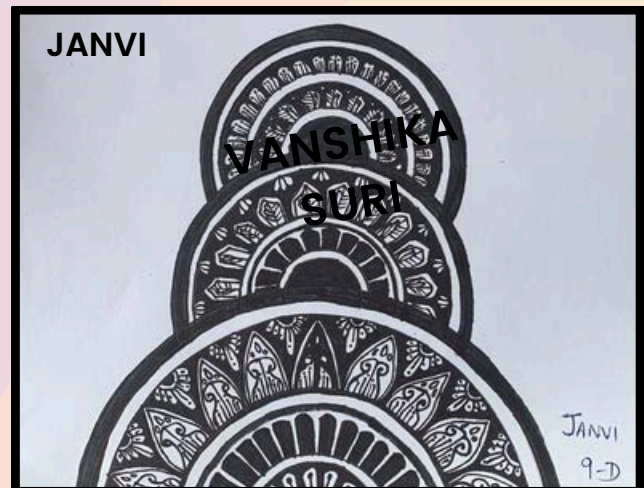
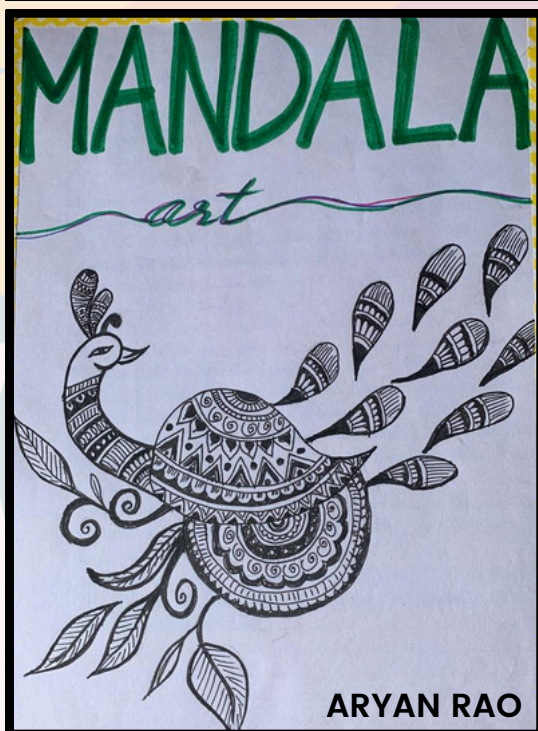
$$12 + 12 = 6$$

$$13 + 13 = 8$$

THEN:

$$14 + 14 = ?$$

SACRED SYMMETRY: UNVEILING THE MAGIC OF MANDALAS



Mandalas are rich in mathematical phenomena such as lines, shapes, position, angles, symmetry, and proportion. It is easy to create personal mandalas using basic geometric shapes of circles, squares, triangles, semi circles, including all fractal dimensions found in nature to make bespoke mandalas.

RHYMES OF NUMBERS: EXPLORING THE JOY OF MATHEMATICS

Ganit ki masti, hai yeh badi tasty

Har ek equation, lagti hai easy

Chalo, chalo, ganit ke saath

Naye naye numbers, khelte rahe saath-saath

One, two, three, four

Ganit ki duniya mein, hum hain superstars

Pyaare pyaare numbers, humko yeh pyaare

Addition, subtraction, multiplication, divisio

Sab kuch hai yahaan, ganit ki pavitra dhara

Ganit ki raahon mein, hum saath chalein

Har sawaal ka jawaab, humko mil jaayein

Ganit ki masti, hai yeh badi tasty

Har ek equation, lagti hai easy

Ganit ke saath, har din naya lesson

Seekhte rehna, yehi hai humara mission

Ganit ka magic, hai yeh kamaal

Har ek concept, hai yeh anokha haal

Ganit ki duniya, hai yeh pyaara

Har ek problem, humko karein vichara

Ganit ki masti, hai yeh badi tasty

Har ek equation, lagti hai easy

Ganit ki duniya, hai yeh anmol

Har ek formula, hai yeh pavitra dhara

Ganit ki masti, hai yeh badi tasty

Har ek equation, lagti hai easy

Pure
mathematics
is, in its own
way, the
poetry of
logical ideas.

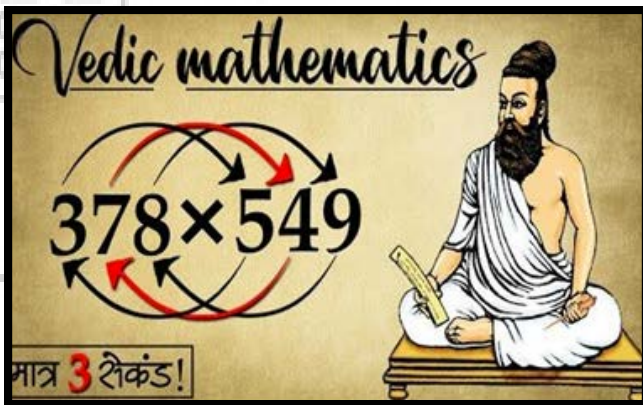
ALBERT EINSTEIN

$$\frac{\sin(\text{gerine})}{\cos(\text{gerine})} = \text{🍎}$$

Kashvi Abrol, XII B

UNLOCKING THE MYSTERIES:

THE VEDIC MATH CODE



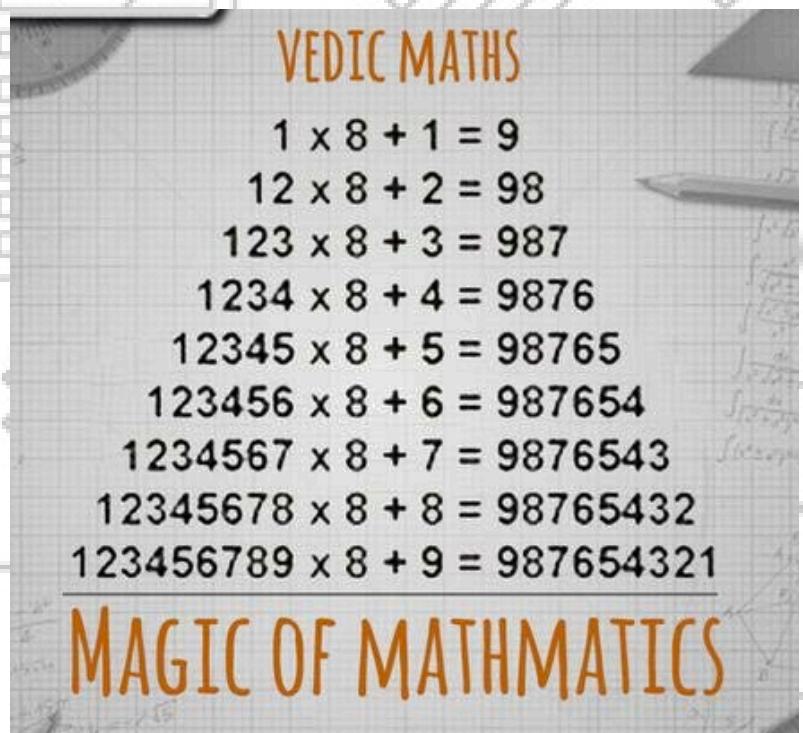
Vedic mathematics is a collection of methods or sutras to solve numerical computations quickly. By using Vedic mathematics, the problems are solved mentally with the use of few or some steps which increase accuracy and reduces mistakes. The applications of Sutras, ensure both speed and accuracy and also enhances computational skills.

Archit Gupta, XI B

Rishabh Kumar Singh, XI B

Marvels
Artistic
Tantalizing
Historical
Elegant
Mysterious
Applied
Traditional
Informal
Creative
Sublime

Vedic Mathematics was discovered by Shri Bharathi Krishna Tirthaji between AD 1911 and 1918. Regarded as the Father of Vedic Maths, Tirthaji published his findings in a book titled Vedic Mathematics in 1957 wherein he wrote about the 16 Sutras.



ROUTES TO ROOTS

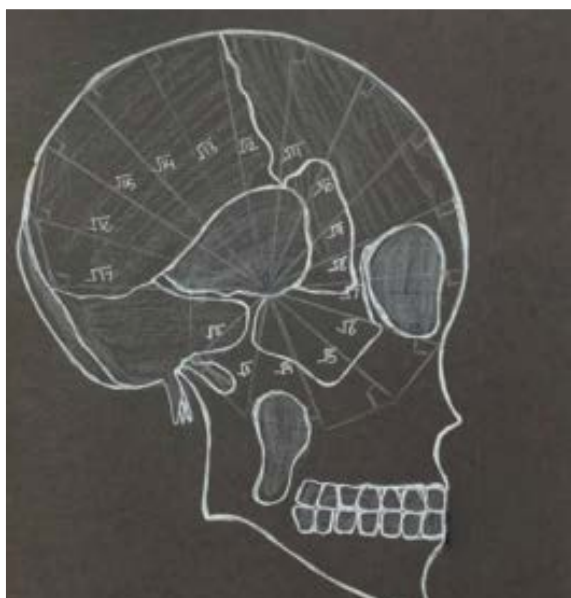
THE BEAUTY OF ROOTS

The symmetry, patterns, and relationships they exhibit can be aesthetically pleasing to all. There's a certain satisfaction in uncovering the solutions of

equations and underlying structure of mathematical systems. In mathematics, "roots" typically refer to solutions of equations. The beauty of roots in mathematics lies in their elegance and their ability to unlock deeper understanding of mathematical concepts and relationships.

Shivika Mankotia
Aahana Singh XI D

ROOT SPIRAL ART



SPIRAL ESSENCE: THE DANCE OF THE BUTTERFLY

It captures nature's enchantment, blending the intricate spiral root with the graceful flight of a butterfly. Symbolizing transformation and growth, the artwork juxtaposes vibrant butterfly hues against earthy spiral tones, inviting viewers to ponder life's cyclical nature and the eternal dance of creation and renewal.



**ZOOM ME
AND SEE**



Ishika Bhowmik, XII B

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