Bal Bharati
PUBLIC SCHOOL
Sector-21, Noida, G.B. Nagar

## NATIONAL MATHEMATICS DAY 2023

Dear Parents,
In India, the National Mathematics Day is observed on December 22 every year. It is celebrated to honor the birth anniversary of Sir Srinivasa Ramanujan, a worldfamous Mathematician who made remarkable contributions in different fields and branches of Mathematics.

With an objective to pay tribute to the legendary mathematician and spread the joy of learning and understanding of Mathematics, Bal Bharati Public
School, Noida is conducting a special activity day. We shall have class wise fun-filled Mathematical Activities. The activities are basically intended to develop the knowledge and analytical skills of students in the field of mathematics.


Following activities have been planned to celebrate National Mathematics Day on 22/12/2023, Friday during Maths Periods under the supervision of subject teachers.

| $\begin{aligned} & \text { S. } \\ & \text { No. } \end{aligned}$ | ACTIVITY | CLASS | TEACHER INCHARGE | MATERIAL REQUIRED | DESCRIPTION | LEARNING OUTCOME |
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| 1 | PATTERN SCAVENGER HUNT (CHAPTER: SHAPES AND PATTERNS) | I | Ms. Monika | Small colorful cutouts of different shapes, A4 size sheet, glue stick, one black sketch pen | Students will make patterns using colorful cutouts of different shapes like circles, squares, triangles and rectangles. They will paste these cutouts on the A4 sheet to make different patterns. | Students will identify different shapes and patterns. The activity will promote problem solving skills by placing shape cutouts to form a pattern. Enhancing creative skills |
| 2 | MATH TIC TAC TOE (CHAPTER: ADDITION) | II | Ms. Arpita | A4 size sheet with a $3 \times 3$ grid, tokens of numbers from 1 to 9 | Players take turns placing tokens on a single square in an attempt to create a row in which the numbers on the tokens add up to 15. The player who makes number 15 first, wins the game. | Children develop critical thinking skills by evaluating different combinations of numbers to form rows that add up to 15 . Players engage in problem-solving by adapting their approach based on the opponent's moves and adjusting their strategy to reach the target sum. <br> It reinforces addition skills as players need to strategically place numbers to achieve a sum of 15 in each row |


| 3 | FLOWER TIMES TABLE (CHAPTER: <br> MULTIPLICATION) $\begin{array}{l\|l\|l\|l\|l\|} \hline 66 & 72 & 6 \\ \hline 60 & 11 & 12 & 1 & 12 \\ \hline 549 & 6 \times & 3 & 18 \\ \hline 48 & 7 & 6 & 5 & 24 \\ \hline 42 & 36 & 30 \end{array}$ | III | Ms. Mukul | 2 identical cut outs of flower (Medium size of any colour with 10-12 petals each. The flower will be pasted in the notebook, so please keep that in mind while making the cut outs of the flower), Straw/stick | Students will be asked to frame the table of the given number on the petals of the flower. | Students will learn about the concept of Multiplication Tables in a Fun way and enhance their problemsolving skills. |
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| 4. | MOSAIC MATH MARVELS (CHAPTER: PERIMETER) | IV | Ms. Anita | A4 size sheet or art file, coloured square pieces glue stick or fevicol. | Students will create a picture of any living thing using square pieces and then calculate the perimeter, area, and fractions that would make their art pieces "Math Mosaics". | It will focus on calculating fraction and perimeter which include spatial awareness, enhanced problem-solving skills, and a deeper understanding of mathematical concepts. Additionally, students may develop teamwork and creativity as they construct mosaics while applying mathematical principles. |
| 5 | AREA <br> DECOMPOSITION CHALLENGE (CHAPTER: AREA) | V | Ms. Ruchika K. | a) square of size $10 \mathrm{~cm} \times 10 \mathrm{~cm}$. <br> b) squares of size $2 \mathrm{~cm} x$ 2 cm <br> c) circles of radius 2 cm | Students would be tasked with calculating the total area of a larger square by decomposing it into smaller geometric shapes such as squares, triangles, circles, and more. | This hands-on exercise not only reinforces the concept of area but also encourages critical thinking and problemsolving skills. |


| 6 | Measurement Madness (CHAPTER: PERIMETER \& AREA) $\qquad$ schect 6snman the space inside a shape $\square$ <br> Pepime $\square$ The measuremen distance apound | VI | Ms Nupur Bhardwaj | Measurement <br> Tape <br> Ruler <br> Paper and pen | Students will explore the classroom by measuring the dimensions of the floor, desks, the bulletin board, the green board, windows and the smart board. Students will calculate the area and perimeters of the objects and explore the realworld Mathematics | Conceptual Understanding: <br> Students will develop a solid understanding of the concepts of area and perimeter by applying them to realworld objects in the classroom, such as desks, bulletin boards, and the green board. Critical Thinking: The activities will encourage critical thinking as students analyze the relationships between dimensions, formulate strategies for accurate measurements, and explore how changes in dimensions affect area and perimeter. <br> Practical <br> Application: <br> Students will see the practical application of mathematical concepts in their immediate surroundings, reinforcing the idea that math is not just an abstract concept but a tool for understanding and interacting with the world. |
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| 7 | LET US FIND OUR OWN <br> (CHAPTER: PERIMETER \& AREA) | VII | Ms Namrta Kaushik | Rope, Measuring Tape, Chalk | Students would construct circles of different diameters. Will measure the circumference and diameter of each circle with measuring tape. Students will find the ratio of $C$ and $D$ in each circle to estimate the value of $\square$ | Engaging in this practical activity not only solidifies the understanding of pi but also cultivates awareness of experimental error and measurement variability. Utilizing rulers, measuring tapes, or string, students measure the boundaries of circular objects, honing their measurement skills. <br> They then apply these skills to collect data for subsequent calculations, enabling them to calculate experimental values of $\pi$ based on the gathered data. |


| 8 | THE FASCINATING WORLD OF PLATONIC SOLIDS <br> (CHAPTER: VISUALIZING SOLID SHAPES) | VIII | Mr Anshul Dubey | Ear buds and quickfix or toothpicks and clay | Students would be making various polyhedrons and platonic solids. Verifying Euler's theorem with the help of the model. | Differentiate among the five Platonic solids (tetrahedron, hexahedron, octahedron, dodecahedron, and icosahedron).Recogniz e the unique characteristics of <br> Platonic solids, such as having equal faces, equal angles, and equal edge lengths. Engage in a tactile and kinesthetic learning experience by physically constructing Platonic solids. |
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| 9 | LET US PREDICT CHESS <br> (UNIT: STATISTICS \& PROBABILITY) | IX | Mr Anoop Dixit | Chess board and pieces. | Students would be tasked to frame probability questions based on chessboard and challenge the peer group to find correct answer Example Question : What is the probability that you pick a chess piece and it is a king. | Students will develop problem-solving skills by analyzing a scenario, identifying relevant information, and formulating mathematical questions. <br> Students will practice expressing mathematical ideas clearly and concisely, fostering effective communication skills. |
| 10 | TRIGO: THE MASTER (CHAPTER: TRIGONOMETRY) | XI | Mr Sanjay Dua | Measuring tape, inclinometer | Students would be tasked with calculating the height of a school building, basketball court, and more. | These types of activities not only reinforce the concept of height and distances, measuring angles but also encourages critical thinking. |


| 12 | Showcasing of movie "THE MAN WHO KNEW INFINITY" | X \& XII | Ms Subha \& Mr Vipin K | -- | -- | The movie provides an opportunity for discussions on number theory, infinite series, and other mathematical ideas explored by Ramanujan. The movie touches upon issues related to academic integrity and the importance of rigorous proof in mathematics. <br> This can lead to discussions on the ethics of intellectual contributions and the peer-review process. |
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