



Report

Making Math Fun- A Skills Orientation Workshop (by Eupheus Learning)

Date of the Event: 21/12/24

Report on : Making Math Fun- A Skills Orientation Workshop (by Eupheus Learning)

Venue: Sarvottam International School, Greater Noida West

Workshop attended by: Ms. Kanika Prajapati and Ms. Ankita Tomar Chauhan

Introduction

The enriching workshop titled '**Making Math Fun – A Skills Orientation Workshop**' was conducted at Sarvottam International School, Greater Noida West, in collaboration with **Eupheus Learning**. The workshop aimed to equip mathematics educators from grades 1 to 8 with innovative tools and strategies to enhance the teaching and learning of mathematics in an engaging and impactful manner.

Purpose:

The workshop led by Mr. Syed F Sattar, aimed to enhance teachers' instructional methods by introducing interactive activities, games, and real-life applications that foster a positive learning environment. By focusing on skill development and creative approaches, the workshop sought to empower teachers to address math anxiety, promote critical thinking, and inspire a love for mathematics in their classrooms. It also encouraged collaboration and sharing of best practices among educators to create a more dynamic and effective teaching-learning experience.

Highlights of the workshop:

1. Hands-on Activity 1: Race to 20

During the session, the "Race to 20" activity was demonstrated as an engaging method to help students practice basic addition while fostering strategic thinking. This activity was designed to engage them in a fun and interactive way, encouraging them to use quick mental arithmetic to add either 1 or 2 to a running total. The primary focus of the activity was to reinforce fundamental addition skills and promote strategic decision-making as participants aimed to reach exactly 20 first.. The effectiveness of this activity in the workshop highlighted its potential to be used in the classroom to enhance their understanding of addition while keeping them motivated and actively involved in the learning process. Through such activities, students can develop both their mathematical fluency and critical thinking abilities.

2. Hands-on Activity 2: Numbers make the Rhythm

An innovative method of rhythmic movement based on the pattern 1..2..123 was introduced by Mr. Syed, engaging participants in the understanding of number patterns and reinforcing rhythmic sequences in mathematics. This activity was designed to help teachers recognize how such methods can be used to connect physical movement with mathematical concepts. It was demonstrated that the activity could be effectively applied in the classroom to assist students in recognizing and internalizing

umber patterns, starting from 1 to 2 and progressing to larger sequences like 123. The progression introduced was shown to build mathematical fluency, especially in early-grade students, by linking rhythm with numbers in an interactive and engaging way.

3. Hands-on Activity 3: The CPA Approach

The CPA approach, developed by American psychologist Jerome Bruner in 1966, was introduced to teachers as a method for deepening students' understanding of math concepts. The following stages were emphasized:

- **Concrete:** Learning through physical objects, such as Dienes blocks
- **Pictorial:** Understanding with the help of pictorial representations, like bar graphs.
- **Abstract:** Solving problems using only abstract symbols, such as numbers.

It was demonstrated that this approach helps build a solid foundation for future learning, allowing students to progress from hands-on learning to abstract problem-solving, thereby enhancing their mathematical understanding.

4. Hands-on Activity 4: The Percentage Puzzle

The "Percentage Puzzle" proved to be an engaging hands-on activity designed to help students grasp the concept of percentages. Participants were shown how this activity uses physical pieces to represent different percentage values, allowing students to see how percentages combine to form a whole. It was emphasized that this approach not only makes abstract concepts more tangible but also fosters critical thinking. Additionally, the activity promotes teamwork and collaboration, as students work together to solve problems and communicate their strategies. The classroom implications were discussed, highlighting how the activity can be effectively used to make percentage lessons more interactive, engaging, and memorable, while helping students develop a deeper understanding of mathematical concepts. This approach was demonstrated to encourage both individual and group problem-solving skills, making it a valuable tool for enhancing student learning in mathematics.



5. Hands-on Activity 5: The Digit Dash- Maximize & Minimize

In the course of 'The Digit Dash', participants used slips of paper marked with digits to form the largest and smallest possible three-digit numbers and calculate the difference between them. The focus was placed on the classroom implications of such activities, demonstrating how they can help students understand the role of digit placement in determining the value of a number. It was emphasized that this activity reinforces key concepts like number sense, place value, and ordering, while also encouraging strategic thinking and decision-making. The activity was shown to be adaptable, with the potential to extend to more complex topics such as four-digit numbers or decimals. By making abstract mathematical concepts more tangible and interactive, this activity engages students in the learning process and helps them develop critical math skills in an enjoyable and competitive way.

6. Hands-on Activity 6: Power of Folds

'Power of Folds' activity was demonstrated which showed how the number of folds made on a sheet of paper can be used to explain the power of two. It was highlighted that this hands-on approach effectively illustrates exponential growth, helping students visualize the concept of doubling with each fold.

| Number of Folds | Exponential Representation | Number of Parts Created |
|-----------------|----------------------------|-------------------------|
| 0 (No Folds) | 2^0 | 1 |
| 1 | 2^1 | 2 |
| 2 | 2^2 | 4 |
| 3 | 2^3 | 8 |

The classroom implications were emphasized, demonstrating how this activity can be used to teach exponents and multiplication by powers of 2 in a tangible and engaging way. By involving students in this interactive process, the activity promotes active learning and makes abstract mathematical concepts more accessible and easier to understand.

Conclusion: The workshop provided teachers with innovative and engaging hands-on activities that can be effectively applied in the classroom to enhance students' understanding of fundamental mathematical concepts. By incorporating interactive methods such as visual aids and physical demonstrations, the session ensured that teachers are equipped to make abstract concepts more tangible, fostering greater student engagement and improving mathematical fluency.

Report submitted by:

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