Buddhi Science Fest

Science is not a heartless pursuit of objective information; it is a creative human activity.-STEPHEN JAY GOULD

Ever wondered what children would do if they are bombarded with knowledge without giving them an opportunity to explore its practical use, challenge their thinking by testing this knowledge and unleash their creative instincts in working with their discoveries? The focus of this year's Science Fair at Buddhi for the students of Primary, Middle and High School was as much for this as it was to celebrate their learning and personal discoveries in Science during the past year. Needless to say there was much fun and excitement at the 3 day event held from 27th Feb to 1st March 2019, when the entire Buddhi community came together to celebrate Science!

The actual work began well before the event and the children and students were actively learning and preparing their displays and demonstrations throughout this time. The preparation for the event commenced in March this year and the school was abuzz with students in prep mode for quizzes, charts, live experiments, science & technology challenges, etc. Focus of this learning platform was to cut across different levels and ages. This year too, students took the lead and teachers helped. It was a wonderful sight as we could see the enthusiasm among the students for such events. Students of Middle school prepared displays of science facts along with showcasing the scientific process that they had gone through, by way of hypothesising, experimenting and concluding. The bulletin boards in primary school exhibited cross-curricular activities where science was integrated into the Inquiry and Discovery based learning programs as well as Math, English and Art. Live experiments were one of the highlights of this festival and middle & secondary students with the help of their teachers were busy preparing for them. They were super excited about demonstrating their experiments and trialed these till they were ready to prove their theories to a live audience! They spent a lot of time and effort preparing supporting posters for their experiments for helping explain their theories. Primary school was not far behind and the teachers worked hard to put forward the best possible activities for our young learners to have fun and learn with during the event.

Digital invitations were expertly made by our middlers and sent out to parents and other guests.

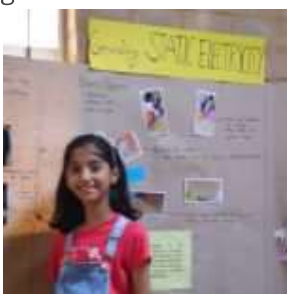
When the big day arrived the entire school was buzzing with scientific fervour and visitors, parents and students alike had a wonderful time. Over the next three days, everyone was kept busy and entertained with a huge line up of activities and displays, that showcased all that our students and children had learnt in their journey with Science! Here are the details.

SENIOR SCIENCE ACTIVITIES

Static Displays:

Science Lab: All equipment and relevant models which students of middle and high school use for their lab activities were up on display during these three days. In addition to a guided tour of this display, parents and visitors thoroughly enjoyed exploring details of "the cell", both plant and animal on the school microscope.





Farm To Plate: 'Sustainable Living', which was the theme for middle school projects last year was exhibited and students made a movie and a model to explain this and their work around it.

Dr Albert Einstein: "*Education is what remains after one has forgotten what one has learned in school" said the famous scientist Albert Einstein. Students made the Albert Einstein booth in memory of this great scientist as a symbolic representation of the science fest.*

My Favourite Scientist: Each student of senior school researched information about history's famous scientists and chose the one closest to their heart and imagination. Picking the one or two things that appealed to them about their chosen scientist they created a mural to depict the collective thoughts on this aspect.

Science in Art or Art in Science?: Students of middle school made big cutouts of the human body in motion using their creative instincts and produced it as art using eco friendly paints and other materials. Interestingly, the children of primary and preschool enthusiastically posed as models for this activity!

Information Communication Technology:

This very new branch of science and technology is a popular and active learning area for our senior students, and game apps, Logo displays and movies were developed and presented during the event. ***Flappy bird,*** a gaming app was developed by a high school student using the Java coding program. Everyone had a good time playing to score with this game.

MSW Logo, a programming language was used by middle school students to create different software objects and were displayed on board.

***** Microscopic Bacteria * Galaxy Around us. * Formation of Molecules * Source of Light 'The Sun' *Eclipse Flash * Rocket Launching * Tree on Board

Middlers along with senior Primary students also made movie on **Flight** showing the science behind planes and their uses.

Brain Challenges: These were another highlight of the event and had the students stretching their minds to compete and complete every challenge on offer.

The *Lumosity Challenge* required the students to complete brain training games in record time, where their memory, concentration, focus, retention, recall and vocabulary were tested through challenging word, logic and math games.

Science and Technology Challenges students of High School made some interesting challenges on Science and Technology had visitors and students engrossed and determined to complete and prove the scientific theories therein. Some of these like Rubber launcher, Slime launcher, Moving Ball in water, Paper Cup Pyramid etc. were highly appreciated.

Memory game: This was a hugely popular game across the school and all students played it multiple times to improve their scores, which were put up as a running display throughout the event, and which goaded them to keep trying!

Carve n Create Challenge : To bring a different flavour to the day, a Fruit Carving challenge saw our students enthusiastically cut & carve out fruits of varied kinds. Taking their cues from video clips and using their own creative instincts, students worked alone or in pairs and produced beautiful designs applying important skills like fine motor dexterity, knowledge & experience about fruits, following instructions, etc. End result – a beautiful array of carved creations that paralleled any star rated buffet table!

Quiz Time!

A quiz on Science was conducted by high school students and everyone was invited to participate. Our middlers and several visitors took on this activity with great enthusiasm and showed their scientific mettle in an exciting session of challenging questions.

Live Experiments

A big highlight of this event were the live experiments on the principles of Nature by our senior school students. Hours of preparation and trials had prepared them very well and all of the experiments were demonstrated amid much nervous excitement. Parents and visitors watched the following experiments with great anticipation and were not disappointed with the results!

Middle School Experiments

* Refractive Index Demonstration * Rocket Science * Electricity generation using coke and fants * Spider race * Lava lamp * Exploding rainbow * Bending beam of laser with

High School Experiments

* Metal Detector * Bottle launcher * LED Lamp * Pen Launcher * Balloon and Orange Juice * Slime making * Submarine

It was a highly interactive time between our scientists and visitors as the demonstrations generated a lot of questions & discussions about the science behind the experiments. A great success indeed!

The students added an interesting touch to the entire event by coming dressed up as their chosen characters from Science and had great fun having everyone guessing! Before they departed, visitors were invited to a simple prize distribution for Quiz, Games and Challenges.

Learning to Fly with Kites:

The Buddhi Science Fest came to a close for our seniors with a very interesting activity on kite flying. The four forces that affect flight (i.e. Lift, Weight, Drag, and Thrust) were successfully demonstrated to our senior school students in this activity.

Starting with a video on kite making, the students were soon engrossed in building their individual kites, which they then tried flying amid great excitement and fun! Discussing their experiences led them all to understand the principles of flight are universal and affect airplanes and all flying objects similarly. A round of applause followed for those students whose kites successfully attained flight and they were declared the best pilots of the day!

JUNIOR SCIENCE ACTIVITIES

The festival for juniors in Primary school started with a Treasure Hunt, that was organised and conducted by the middlers. Designed along the lines of the Amazing Race, it had different challenges to take up such as imitating dance movements, testing their senses through taste, smell and touch, constructing a boat out of blocks and building a 3D model with toothpicks and clay. Showing good teamwork and swiftness, the team of Kiasha, Nirvann and Vedaant were the first to complete the race.

Activity centres were set up for primary children, parents and other guests to construct, explore and experiment with varied materials and processes. All of these were planned and created to bring about Science appreciation through a hands-on, application and discovery led process.

The **Construction Centre** had indigenous resources such as playdough, cardboard boxes, straws, pegs, barbecue sticks, popsicles, thermocol balls and so on to allow our young learners' creative and innovative skills to go wild as they created and constructed whatever they wanted to. Teachers & parents then interacted with them to learn what these little minds had figured out!

The **Exploration Centre** came alive with children dropping in to explore and experiment with different items of daily living. It had opportunities for all age groups – to experiment with food colour, salt,

detergent, cornflour, vegetable oil and more. It also had a sink and float tub for children to discover what sinks and what floats. High schoolers enthusiastically participated and demonstrated ways to make slime and density columns to junior students, who were delighted with this impromptu lesson and went on to make improvisations. The exploration

centre was a big hit not least because it allowed children to go all messy and hands on!

Science begins in the kitchen! We all know that and so our **Kitchen Science Centre** was hugely popular with activities designed for all ages. Seniors were challenged with making caramel and use it to make caramel popcorn. This provided them live learning on the scientific principles of sugar caramelisation. They observed the changes occurring to sugar crystals and understood the significant role of temperature in bringing in the right colour & flavour, for the caramel got bitter in their first attempt. Notwithstanding the taste, the popcorn was devoured nevertheless! Another challenge was to make chocolate designs with melted dark and milk chocolate – again giving them a chance to experience properties of liquid and how consistency is critical in successful cooking! Everyone including the teachers tried their hand at piping chocolate...what beautiful designs the kids made and all ready to eat!!

Colourful badges were handed out in appreciation for their participation. The excitement continued with other experiments and challenges like Invisible Ink, Egg Separator – separating egg yolks and whites and beating the whites to maximum stiffness.

The festival ended on a high note for our juniors. They presented a short mime on Tornadoes, which was a part of their learning in their recently concluded Inquiry module on Weather. The children designed all the props, the narration and a short poem for their mime with the help of their teachers and everyone thoroughly enjoyed their performance.