

infinite possibilities of learning



JKG INTERNATIONAL SCHOOL

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Engaging Parents in Celebrating Every Child's Uniqueness

Following the successful commencement of Education 3.0 project-based learning program, our focus in the past few months has been on increasing the parents' involvement in their child's education. Of course, education here does not mean merely books and exams, but the whole learning process that should lead to a student's wholistic development — mental, emotional, physical and spiritual. That is mind, body and soul.

We have started a series of events called 'Parents Day @ School', a day where the parents take on the role of students and the children become their teachers. For each event, one class takes up the responsibility of organising and conducting the entire event, and presenting their projects to the parents. The first event conducted by class VIII was held in May and every single student of the class was dedicatedly involved in making it a success.

Beginning July, we are also keeping in touch with the parents through mobile messages. These contain tips and ideas for them to engage in their children's learning process in a meaningful way, on a day-to-day basis. In this issue of Ed3.0 report, we bring to a glimpse of all these and more... Enjoy the read!

















About Education 3.0

Education 3.0 is India's first-ever program of its kind. It integrates experiential learning into the school's regular curriculum, and opens up avenues for students to understand subjects topics from real life situations.

The program is led by the their natural curiosity to explore, experiment and create. What they learn in the classroom, they also experience hands-on, alongside developing the essential 21st century life skills of collaboration, leadership, creativity and empathy.

This report provides a brief summary of the projects and activities conducted by students over the past months. You are also welcome to take a look at the experiential learning lab in the school and witness the project-based learning sessions in action.



Class VI Takes the Stage

The second in the series, this day was organised by the students of Class VI especially to give their parents a glimpse of the exciting new ways in which education has evolved in their school.

The best part was that all students were involved in preparation as a group and every single child of the class spoke on the stage that day.

The event began with each parent lighting a 'diya of knowledge' and placing it outside the auditorium along with auspicious marigold flowers. This act was an extension and completion of the diva's lighted by the students on their first day in the lab, and was symbolic of the parents resolve to stay involved in three child's education in a more meaningful way.

After a brief introduction to Education 3.0 program was given to the parents, and then the students took the stage to help their parents find answers to some interesting questions about the Universe through an activity-based approach.

- •When did we begin to exist?
- •Can we measure the vastness of the solar system?
- •How big is the Earth?
- •What is the speed of Earth?
- •What will it take for us to sit still?
- •What is direction?
- •Why have we drawn imaginary lines on Earth?
- •How many hours are there in a day? Think Again!
- •Why does temperature change with weather?
- •What is the real colour of the sun?
- •Who is our nearest celestial neighbour?
- •Why do moons have different phases?

Rehearsal Sessions



It was great to see many parents volunteering to assist the children in their demonstration of universal phenomena. Later there was also a quiz for parents and many of them enthusiastically participated to win smiley badges.

The event concluded on a high note with a short film on Education 3.0 program, which was prepared with help of the students.

Afterwards, many parents also visited Ed3.0 lab and the students themselves showed them around and demonstrated how the various learning tools and equipments work.

Overall, it was an excellent opportunity and an engaging experience for the parents to step into the children's shoes and experience a part of their life from their perspective. And for the students, it was a confidence booster like no other.



Final Presentation Day





Lower Primary experiential learning curriculum is fueled by the natural curiosity that children exhibit at this age. Children share ideas and experiences, and develop a sense of community and discipline through interactions with nature, people, objects and the environment. They explore and investigate, consolidate and connect with what they learn, ponder over and question it, and then demonstrate their learning in multiple ways.

Project: Air

Students did various activities to learn more about air . They had fun during the activities like air has weight with the help of balloon balance activity, paper chit on the lip activity to explore the movement of air around it, the pushing of a paper ball outwards when it is blown inside a bottle, making of different types of 'firkis' and air exerts pressure using balloon cars. All these concepts were introduced with hands on experience rather than words.

Project: Sound

The students saw the dancing mustard seeds over a stretched cellophane sheet to observe sound. They learned to amplify sound by using an inflated balloon. They had fun while making a paper flute and toy telephone as learn with fun. They learned about how sound moves in different mediums .they enjoyed a sound game where they made different sounds like clap, hop, shout etc. when they were shown some predefined codes and shapes. They also saw the formation of sound waves on the wall by reflection of laser light through a mirror on a tin can when a student shouted in it. These activities focused on inculcating the concept in the mind of the students with fun.

Project: Time

The appreciation and importance of time needs to be development at an early stage of life. This was done through some activities. The students started with recalling the names of different types of watches and clocks they have seen around them. They were introduced to many different types' watches which normally are not seen around. They made their own simple sundial they were exited and thrilled to use them. They tried using it to read the time in the sun with the guidance of the educators. They loved to share what they do when there is a specific time in the clock. Students acted as a big clock with two circles of numbers one for AM a d the other one for PM. Some students became the hour hand, minute hand and the numbers. This helped them to read not only time but the concept of noon, mid night s along with AM and PM. During the activities they could do basic conversion of one time unit into another ranging from second to year. The student enjoyed the learning of the concept of day and night formation using the globe and torch and learned about the time duration of it as 24 hours. They spelled all the months of the year and participated in making of the birthday calendars by pasting their photographs as per their birthday.

Project: Light

The students experienced this phenomenon using different activities. They observed the candle

flame as a point for concentration. They named various sources of light from their surroundings. The students had fun while learning that they cannot hold light. They learned about the composition of light using silver side of CDs. They observed sun using solar glasses as major a source of light and made a shadow chain to observe the formation of shadow away from the light. They enjoyed the poem on traffic light and telling about the importance of each red orange



and green light. They played the treasure hunt game finding word elated to light. Students enthusiastically made their own torches. They also played with toy cameras and learned the importance of light to see and click pictures.

Project: Gardening

This project aimed to bring the students near to nature. The students were given an insight to the



process of germination of seed by showing them an animated video on "How Plants Grow". They were provided with hands on experience with different types of seeds, plants and their parts. The students enthusiastically participated in the activity of sowing of the seeds in their individual paper cups. After a few days they were overwhelmed with joy to see the saplings in their cups. Under the guidance the students prepared the channels in the garden area and

later they transferred their saplings to these channels. They enjoyed being to the garden area and were happy and proud to say I planted a sapling there.

Project: Seasons and festivals:

Our country is vast and enriched with diversity. The students identify the seasons in the month of

their birthday. The students explored different objects used in different seasons and identified the seasons well. They identified the hot and cold months on the basis of their clothing's. They identified different festivals through the pictures of related things on flashcards as well as through a crossword. They enjoyed playing with clay and making different items related to different seasons and festivals. They also enjoyed drawing different seasons and festivals on slate





Film making includes different stages in a dynamic process where the project is completely designed by the students. It involves a number of stages including story idea, script writing, casting, shooting, sound recording, editing and screening. Al along, it integrates various important topics fom Science, Mathematics and Language. For classes III, IV and V, although the fil-making process remains the same, the depth and complexity of the of subjects topics increases according to the students' abilities and the sylabus.

• Pin-hole Camera

Before handling a camera for shooting the students were introduced to the concept of working of a camera. For the same, the students were given a hands-on experience of making a camera of their own and they made a pinhole camera. A pinhole camera is a simple camera without a lens but with a tiny pinhole — effectively a light-proof box with a small hole on one side. Light from a scene passes through the pin sized hole and projects an inverted image on the opposite side of the box. Class 3rd and 4th made a simple pinhole camera where the image of a candle was projected onto a translucent screen for real-time viewing. Class 5th made a slightly advanced version with a sliding option where the inverted image of the scene was projected onto the screen. They could adjust the focus and zoom by sliding one box in the other. The students enthusiastically made their pinhole camera and were excited to observe the things around. They also enquired about why the images were inverted. Through this activity they got to know how a camera works which they will be using for the shooting of

their animated film.

Shooting And Invitation

Before shooting the animation film, the students explored how characters of a film are made, how do they move, and how a scene is set up in animation films. For this, they first watched a demonstration video and then made their own character figures using origami papers.



On an A3 sheet as the background, they adjusted the proportionate sizes of their characters according to their placement on the background . Now the students were ready and they did shooting of their animation films, which will be screened for parents at one of the upcoming PTMs. They made beautiful invitations side by side for inviting their parents and teachers for the screening of their animated movie.

Project: Natural Phenomenon

As a person on earth one should be aware of the various events occurring around us and probably the reasons behind them.

Sound

It is an event that occurs around us as soon as we open our eyes first in the morning. The students started with recalling about various sounds around them. They observed the vibrations of sound by keeping their hands on their throat. They also observed the sound vibrations by "dancing of mustard seeds" on a plastic film near a sound source. They experienced the sound waves on the wall using laser light and specially made apparatus for the same in which they shouted and the laser light moved in a form of wave. They could observe the displacement of wave on the basis of its loudness. They also got learning about how sound travels across in different mediums namely air, solid and liquids. They got an insight about the production and propagation of sound.

Time

Time is an important aspect in life. The students started this project with counting of one minute and counting their pulse. They did a candle burning activity and a racing activity to learn about time interval. They enthusiastically acted as a clock and showed different timing as per the activities they normally do during a day. They identified the timings for day and night. They made their own sun dial and were able to

They made their own sun dial and were able to read the timings. They also made their own sand clock.





Light

This phenomenon was introduced with a dark room and a movie on shadow puppetry titled 'Incredible India'. The students enjoyed the movie and identified the events shown in the movie. They also narrated some stories using shadow puppetry. They played with mirrors to learn more about reflection of light. They learned about the effects of source of light on the shadows by making shadows taller and shorter.



Shelter Making:

Shelter is the basic requirement of all of us. The students were given an exposure to various types of shelters from model making using shapes till an actual shelter. They enjoyed the experience of making a resting shelter for themselves in groups.















For this age group, study of astronomy is of the highest value as an intelectual training. No other science so operates to cultivate nearly every faculty of the mind; the memory, the reasoning power, and the imagination all receive form it special exercise and development. By the precise and mathematical character of many of its discussions it enforces exactness of thought and expression, and corrects that vague indefiniteness which is apt to be the result of pure literary training. On the other hand, by the beauty and grandeur of the subjects it presents, it stimulates the imagination. Our projects at this stage of the child's growth aim to give the students an inteligent understanding of the leading facts-- not a mere bookish knowledge of them. Folowing is a combined description of project-activities conducted with students in two separate batches.

Project: Natural Phenomenon

Sound

The students closed their eyes and were asked to observe the sound of number of marble tappings.

The students learned the sound propagation in different medium and the speed of propagation. They also made the toy telephone for experiencing propagation of sound. They also observed the sound waves and sound vibrations using laser light and specially made apparatus for the same.



The students made their own equatorial sundial and learned to read the time. They used sand clock to find out time. To learn about time interval they did a candle burning activity.



Light

The students actively participated and learned about the reflection of light and the angles of reflection and incidence ray. The concept of periscope was experienced by students using mirrors. The students observed importance of light for plants by covering the leaves of plants with a black poly bag.

They used cardboards with holes in the centre to experience that light travels in a straight line. They also classified the objects into opaque, translucent and transparent objects. The students observed 3D objects and draw the outline of the shadow and study the dimension of the shadows as 2D. They also experienced the concept of real and virtual image formation using burning candle, plain mirrors, and concave mirrors. They also experienced the dispersion and bending of light through a prism and its composition. They also learned about the formation of a rainbow.



Project: Film Making

This project has multiple steps which are:

• Pin-hole camera

Before handling a camera for shooting the students were introduced to the concept of working of a camera. The students were given a hands-on experience of making a camera of their own and they made a pinhole camera. A pinhole camera is a simple camera without a lens but with a tiny pinhole – effectively a light-proof box with a small hole on one side. Light from a scene passes through the pin sized hole and projects an inverted image on the opposite side of the box. Students made pinhole camera with two sliding black paper roll sliding into each other. One side of the first roll was covered with butter paper and one side of the other roll was closed with a black paper. Then they made a small pin sized hole on the black paper of the second cylinder which was covering its end. They could adjust the focus and zoom by sliding one box in the other. The students enthusiastically made their pinhole camera and were excited to observe the things around. They also enquired about why the images were inverted. Through this activity they got to know how a camera works which they will be using for the shooting of their animated film.

Watching Different Movies

To get the knowledge about different types of films the students were shown short advertisement, short movie, a documentary movie, animated movie and a 3D movie. They were explained the role of different media in our life.

Thaumatrope

The making of thaumatrope is related to creation of illusion. The students were able to make their own thaumatropes by cutting two circles of cartridge sheet. Then the desired pictures were made on the two circles as per the desired output. Then these were pasted on to the sticks such that the two pictures appear one when it is twirled. The concept of illusion was also explained using praxinoscope.

Flipbook

Flip book is a set of multiple similar pictures on multiple pages or frames. It works because of an optical illusion caused by persistence of vision. The students made their flipbook by drawing multiple pictures. These images appear moving fast, as our eye isn't able to keep up. So instead of seeing separate individual pictures, our eyes only see one that looks as if it is moving. Students enjoyed these activities and made quite creative pictures.



We bring the planetarium to you! Are you ready to blast off into space?

The planetarium show presented an unforgettable and incredible experience to the students by taking them on a 45-minute journey through the universe. The Planetarium was quickly and easily set up in the school auditorium. Students entered the dome/planetarium and were introduced to a "star filled" sky. Live tour of the night sky from Earth was shown. The navigator with the use of a digital planetarium projector and a laser pointer guided the students through the stars of the Northern Hemisphere and the southern hemisphere. Students witnessed the night sky in different seasons and from different global perspectives. They were introduced to Greek mythological characters, zodiac signs and see how these heroes of the past and these signs can be found in the stars. Star patterns (Ursa Major in hindi popularly known as SAPTRISHI), the North Star (Polaris) was also shown. The features and importance of Polaris for navigation was also shown and constellation stories of the season were told. The phases of moon, young star and old stars were also shown. It was a bright, entertaining show that was packed with information. The enormous domed screen completely surrounded the students, placing everyone right in the action. Students flew through the Solar System. It was a fantastic experience that made children reach their hands up to touch the stars as they fly by. The teachers and the parents also got the chance to participate in the planetarium show. "The planetarium show was amazing; infact life-changing experience for some people...

Afterwards, many parents also visited Ed3.0 lab and the students themselves showed them around what all they have done and prepared in the last few months and demonstrated how they use various learning tools and equipments for their hands-on learning. Overall, it was an excellent opportunity and an engaging Experience for the parents to step into the children's shoes and experience a part of their life from their perspective.

Teacher's feedback-Not only was the event a wonderful learning experience for students, but also the beautiful lights and effects gave an immersive sensory experience for the children with limited cognitive ability, so that they learn complex concepts in a fun and easier way.







All of us get the basic amenities of life easily. Many of them are the necessary for us, as without them we are unable to survive.

What are those amenities?

The students were asked this question at the beginning of the camp. The students came up with different answers, such as, Water, Food, Shelter, Direction and Light.

Water fit for drinking

Every liquid which is colourless and looks clean, is not necessarily water. We cannot say that a sample of water is fit for drinking just by looking at it. To explain the concept of water impurities and water fit for drinking a test was conducted using pH paper. Some samples of colourless liquid were taken and each group was provided with pH paper. They dipped the pH paper in each liquid and observed the changes in colour of pH paper and the nature of the liquids. Students actively participated in the experiment and shared their observations.



Food for survival

One of the basic requirements for survival is food. The importance of balanced diet was discussed by the students. Then the students made their traditional chulhas using bricks for cooking food. Each group was provided with the required utensils and raw material. Under proper supervision of educators the students made their own Khichdi with vegetables keeping in mind the safety measures needs to be taken while working with fire. The students enthusiastically completed this activity and enjoyed their self made Khichdi...



Our own source of light

A source of light is necessary for any adventure trip or camp. In the camp students made their own source of light that is, a torch using LED bulb and lithium batteries by creating a simple electrical circuit, which is the foundation for the complex concepts of physics which they will be dealing with in their later years. They got to know that a closed circuit is necessary for the torch to lighten up. It was an exciting experience for them to create their own source of light with such minimal things.

Survival shelter

This is yet another necessity for survival. The students first made their model of shelter using straws while understanding the complex 3D concepts and stability of shapes. They were given straws and connectors to make a model of their basic shelter. With their own imagination and understanding student came up with the models of shelter. This activity helped them to understand how they can make a stable structure of a tent.

For the actual tent they were provided with bamboo sticks, rope pieces and tarpaulin. Based on their model the



students made their tents under the constant supervision of the educators. This activity helped them to enhance their motor skill, logical thinking and cognitive skills.

Finding direction

The students made magnetic compass using needle, magnet and thread. Through this activity they got to know about how they can find the directions of different places.

The night sky

We often look at the night sky and wonder how we can observe the objects closely? In the camp we made an attempt to answer the question by making a telescope. Students were given black sheets, double convex lens and tape to make their own telescopes. With the instructions given by educators, the students made the telescopes. The students observed their surrounding and the sky with their self made telescopes and find out that the objects appear closer and bigger than they actually are





Visit to Qutub Complex: .

The purpose of visit was to make the students aware of the history of India especially Delhi. The students were given an exposure to the Mughal architectures and the associated story behind the construction of the different sections of the complex, and victory over Quila Rai Pithora. They were thrilled to see the Iron pillar of Ashoka's time. They were sensitized to the importance of historical monuments.









Exploring Sanjay Van:

The students were taken to the sprawling forest in the suburbs of Delhi. They did the sightseeing, bird and animal watching(Some were lucky enough to see some of the birds and animals), Tracking, and Map reading to reach a destination and use of Magnetic Compass. The students enjoyed the tracking and were overjoyed to see the city around from quite a high point where greenery surrounds them till far their sight. They could see the Qutub Minar. They saw and appreciated different types of flora to.







Who says experiential learning is only for school? Or that it is only for the students? Experiential learning is not a curriculum, its a more humane way of understanding the world around us. And if parents get involved with the children in this process, experiential learning becomes a part of life and children continuously develop skils such as self-enquiry, analyses, and self-expression. Therefore this section is exclusively for parents to know more, do more and be more.



An Activity to do with Your Kids

Make a Balloon Rocket at Home!

What you'll need?

- 1 balloon (round ones will work, but the longer "airship" balloons work best)
- 1 long piece of kite string (about 10-15 feet long)
- · 1 plastic straw
- tape

What to do?

- 1. Tie one end of the string to a chair, door knob, or other support.
- 2. Put the other end of the string through the straw.
- 3. Pull the string tight and tie it to another support in the room.
- Blow up the balloon (but don't tie it.) Pinch the end of the balloon and tape the balloon to the straw as shown above. You're ready for launch.
- 5. Let go and watch the rocket fly!



How does it work?

It's all about the air...and thrust.

As the air rushes out of the balloon, it creates a forward motion called THRUST.

Thrust is a pushing force created by energy.

In the balloon experiment, our thrust comes from the energy of the balloon forcing the air out.

Different sizes and shapes of balloon will create more or less thrust.

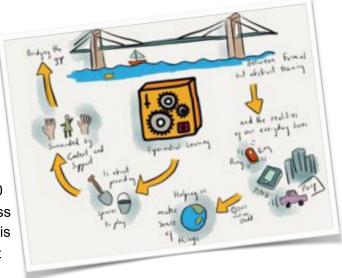
In a real rocket, thrust is created by the force of burning rocket fuel as it blasts from the rockets engine – as the engines blast down, the rocket goes up!



Experts on Experiential Learning

6 Reasons Why It Is The Future Of Learning

More than a hundred years ago, Hermann Ebbinghaus formulated the learning curve, which describes the relationship between memory and time. In a nutshell, it says that, during a lecture, if your absorption rate is at 100 percent on day one, there is a 50-80 percent loss of learning from the second day onward, which is reduced to a retention rate of just 2-3 percent at the end of thirty days.



This theory is even more relevant in today's world where attention spans have come down and learning sometimes is reduced to 140 characters!

How then can 'Experiential Learning' help overcome this situation? We believe there are eight reasons why experiential learning is the future of learning.

1.	Accelerates Learning Repetitive Learning or learning by rote has long been replaced by 'Learning by Doing.' Experiential Learning methodology uses critical thinking, problem solving and decision making to deliver a training module. This has become an established method to accelerate learning.
2.	Provides a Safe Learning Environment Simulations use real life scenarios that depict several challenges, which a participant will eventually face after school It is only natural that mistakes happen during the course of learning, and using simulations is like taking kids to a playground, and getting them to have fun, try new things and learn, in a safe controlled environment.
3.	Bridges the Gap Between Theory and Practice By moving beyond theory to the realm of "learning by doing," the child gets a first hand experience of practicing what has been taught. This plays a crucial role in retaining concepts and ideas.
4.	Produces Demonstrable Mindset Changes There are very few learning methods that can have a dramatic impact on the participant's mindset. Experiential Learning is one of them. Management guru Henry Mintzberg pointed out long ago that, "Leadership, like swimming, cannot be learned by reading about it".
5.	Increases Engagement Levels The high focus on collaboration and learning from each other benefits the participant as it increases engagement. On the other hand, since the participant is immediately involved in the problem solving activity or event, the level of ownership of the outcome is high.
6.	Delivers Exceptional Return on Investment (RoI) Experiential learning is personal and effective in nature, influencing both feelings and emotions as well as enhancing knowledge and skills. It goes beyond classroom learning and ensures that there is high level of retention, thereby delivering exceptional RoI over a traditional learning program



A UNIQUE EXPERIENTIAL LEARNING PROGRAM,
OPENING UP A WORLD OF OPPORTUNITIES FOR STUDENTS
TO EXPLORE THEIR INNATE STRENGTHS AND FIND
CREATIVE SOLUTIONS TO REAL LIFE PROBLEMS



How Education 3.0 Works

Education 3.0 journey this academic year for students of classes Nur to VIII has started with the aspiration to make learning more child-centric as well as more joyful, relevant and meaningful.

We have observed that the energy level of each and every group is very different — mentally, physically and in their hearts. Their energy guides them or drives them in any direction. At times, one may see them acting as a violent stormy ocean, but much under the depth, the stillness, the calmness hides, glimpses of which are caught when they are guided by their best self. The strong personalities are waiting there to manifest and to give them the right direction. Allowing this to happen is a great challenge for all of us.

Hence, our eforts are focussed on...

Self Awareness: Children are being encouraged to be aware of their actions and reactions. They are provided opportunities to express their thoughts and feelings, their likes and dislikes, and what to follow and what not to follow. Though much work still needs to done in this area, collected efforts are helping them to settle down in the group.

Concentration: Concentration is absorption and focusing of all the energy around the central being, whereas absence of concentration expresses the opposite tendency, that is, dispersion of energy. Children are slowly developing their faculties of concentration in different areas like reading, writing, hand skill related work, listening to stories and instructions. They are working at becoming more focused, alert and active. A sense of independent working is also gradually seeping in. Along with this, a lot of dispersion of energy is also seen in children, where they need further guidance to concentrate in various constructive areas.

Observation: By their very nature, children are keen observers. With the growth of the mind, they begin to observe, experience and explore the infinite wonders of the universe; the change of weather, the reflection of light, working with friends. The group environment in the experiential learning class





is encouraging them to understand the topics by raising questions, drawing their own conclusions on the different occurrences that they observe and experience in their day- today life.

Imagination: Most children take interest in storytelling and creating new student. They are making efforts to weave original stories and share them with the whole group. Various imagination related activities were done while working on different topics. Glimpses of these are seen in their story writing, working on models, watching movies, experimenting with logics and muchmore.

Thinking: To bring alive children's thinking process, they are given extensive opportunities to create things with their own hands or create stories or songs or drawings, which most of them enjoy a lot. Through this, they can relate their past experiences and knowledge and create a mental picture as they listen to a story or see anything outside or play together. When they hear any story or poem, they are also encouraged to comprehend the essence on their own

Verbal expression: Children are gradually opening up and becoming more expressive about their feelings and thoughts. They are guided to articulate better. At times, they talk so much that one feels the need to help them to become quiet. Direction needs to be given for meaningful interactions and expressions. They need to understand with what volume level they have to speak in different situations.

Group dynamism: This is an important aspect for both individual as well as collective living. It reflects on the physical, emotional, mental as well as the inner stability of a group as they grow together in a given space

Therefore, the effort of our educators is to enhance peer group interactions and help students grow in harmony and awareness through various life skill games. Though, each of them has different interests and preferences, they all are working together to face challenges and flower in the space and with the people around them.

To know more, please join us on:

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