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Tangents

DECEMBER 2023 / VOLUME 1

TANGENTS
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Tangent is the official newsletter of Ardent Educational Consultants Sdn Bhd. It is published every year and distributed FREE of charge.

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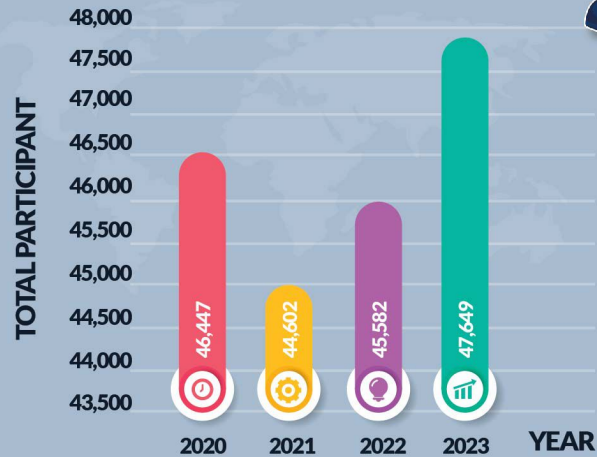
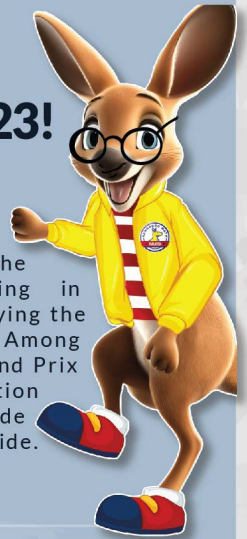
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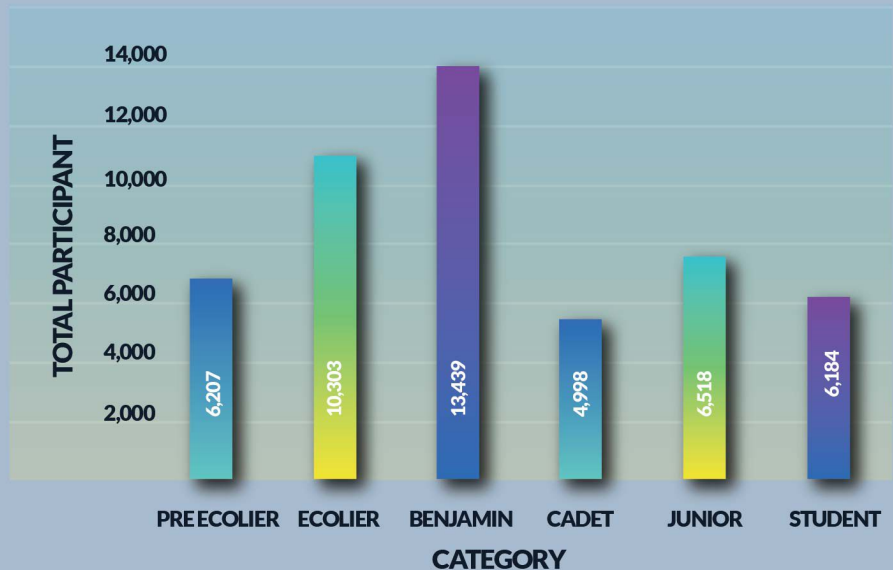
Total Participants In Kangaroo 2023!

by Nur Syakirah binti Shuhaili

The Kangaroo Math Competition on May 18, 2023, had a remarkable turnout, boasting 47,649 participants from 1,552 schools. It set a new record for participation, highlighting the significant interest and dedication to problem-solving in mathematics across various educational institutions, signifying the increasing passion for math among students and educators. Among these participants, 125 standout achievers received the Grand Prix award for achieving perfect scores, symbolizing their dedication and deep understanding of math. Their success not only made history but also inspired aspiring mathematicians nationwide.



Among the six categories—Pre Ecolier, Ecolier, Benjamin, Cadet, Junior, and Student—the Benjamin category experienced the highest influx of participants, attracting a substantial number of individuals eager to demonstrate their mathematical skills. Conversely, the Cadet category saw the lowest number of participants, indicating a comparatively smaller turnout within this specific level of the competition.





During the competition, everyone was excited and focused. Students worked hard to solve tough math problems, showing determination and grit.

This competition, a symbol of mathematical excellence and determination in Malaysia, was made possible by the joint efforts of various organizations like the Association of Kangourou Sans Frontieres (AKSF), Kangaroo Math Malaysia, Ministry of Education (MOE), Kangaroo Math Ambassadors, and many others. We would like to express our sincere gratitude to teachers, parents, and participants for their support since 2013 and eagerly looked forward to the next competition in 2024.



Kangaroo & Kijang Road Tour: Reaching 85 Schools Across Malaysia!

by Nurul Syalwana binti Mohd Shabaruddin

The Kangaroo Math Road Tour was successfully completed from early January until mid-March 2023, conducting mathematics mini-seminars for a maximum of two hours for free during school visitations. This program aimed to broaden the practice of higher-order thinking skills (HOTS) in mathematics by providing students with tips on solving HOTS questions. This program also offers alternative approaches to tackle HOTS problems, and methods to enhance students higher-order thinking skills with questions from Kangaroo Math. Special for this year, we collaborated with Kijang Economics Competition that focus on finance literacy.

We received overwhelming responses from almost 100 schools across the country, covering all types of schools in a 30-day period. The Kangaroo Math team managed to cover all the eastern, northern, southern, and central regions, visiting 85 schools in total. Our team of ten, including Syalwana, Erlina, Syamimi, Ruqayya, Najia, Imran, Hadhri, and three part-timers, embarked on this journey, starting in the Southern region (Johor and Negeri Sembilan) for a week, then moving to the Northern region (Kedah, Penang, and Perak) in the first week of February, followed by the East Coast region (Kelantan, Terengganu, and Pahang). We wrapped up our journey in the Borneo region (Sabah and Sarawak). Typically, the Central region is part of the entire road tour period, but this year, we decided to extend it for an additional three weeks. This decision was fueled by the overwhelming number of invitations from schools, and we did not want to miss the chance to connect with even more students and teachers.

Looking ahead, we are eager to continue our work in shaping top-notch math students. We firmly believe that this Road Tour will leave a positive impact on students and teachers throughout Malaysia. Join us on this exciting journey and become a part of our Kangaroo Family!

TRAVELOGUE

The Kangaroo Math Road Tour covered various regions, starting with the Southern region, where we spent a week. The feedback from teachers indicated that most schools in this region had never participated in the Kangaroo Math Competition. We were delighted to meet Encik Yazid bin Kamri, the headmaster of SK Bukit Soga, who had registered for the road tour based on their positive experience with the Kangaroo Math Competition. This time, his wife's school, SK Sungai Tongkang, joined our road tour, following his recommendation. We hope Encik Yazid can inspire and spread the love of mathematics not only within his circle but also among teachers throughout Malaysia.

We are truly thankful for the chance to connect with schools in Kelantan, especially SK Zainab 1 and SK Dabong, marking a meaningful first for us. Izzati and I took the lead as facilitators for the East Coast region, embarking on a whirlwind journey to both schools in a single day. Our adventure began in Kota Bharu, where we visited SK Zainab 1 in the morning from 8:00 AM to 10:00 AM. Originally, the plan was to head straight to Sk Dabong after completing the mini seminar at SK Zainab 1. However, a thoughtful suggestion from a teacher at SK Zainab 1 prompted a change in plans. She recommended taking the train to SK Dabong, as it would be a more convenient and quicker option.

The train station was conveniently located right beside the school, and the teacher from SK Dabong offered to pick us up. Rushing to the nearest train station, we faced a minor setback: the train had already departed. Undeterred, we were advised to head to the next train station in Pasir Mas. We did our best to reach the station on time. However, a wrong turn based on Google Maps led us into the middle of a forest, adding an unexpected twist to our journey. Quick on our feet, we decided to continue to SK Dabong by car, managing to arrive before the scheduled time. The hospitality of the school's headmaster added a heartwarming touch to the experience. He graciously served us lunch before the mini seminar commenced. It's moments like these, filled with unexpected detours and warm gestures, that make our journey uniquely memorable.

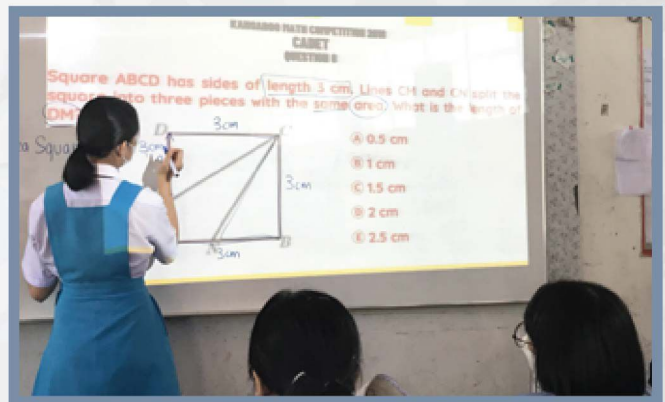
Turning to the Northern region, our journey began on 5th February 2023, coinciding with Thaipussam Day. Despite a nearly 2-hour traffic jam delaying our hotel check-in, we were pleased to receive invitations from two esteemed higher education institutions, Universiti Teknologi Petronas (UTP) and Kolej Vokasional Slim River.

Our final stop for the Kangaroo Math Road Tour 2023 was in Borneo, where we stayed for four days. Transportation barriers limited our visit to three out of the ten registered schools for this year. Despite the setbacks, we appreciated meeting passionate teachers like Mr. Ong Choon Keat from SMK St. John. Discussions with the school's principal opened the opportunity for collaboration on a Kangaroo Math workshop at a closer location in 2024.

We extend our sincere thanks to all the teachers and students for their warm welcome and attentive participation. We believe that everyone involved in this program gained a clear understanding of the movement and competition from Kangaroo Math Malaysia. Lastly, a heartfelt THANK YOU to Kangaroo Math Malaysia team for making the world of mathematics even more attractive.



Students eagerly vie for the chance to answer questions and win special prizes from Kangaroo Math Malaysia.



A student from SMK St. John in Sabah took on the challenge of answering a question in the Cadet Category during the Borneo region's Road Tour.



One of the facilitators asked a question during the icebreaking session.



Memories with the student from the Dignity for Children Foundation.



Student having fun experience at Kangaroo Math Road Tour Beaconhouse Sri Inai International School.



Students from SJK (C) Chung Hwa Wei Sin, Terengganu, passionately listen to the facilitator and try to answer each of the questions by themselves.

Kangaroo Math Preparatory Workshop For Primary & Secondary Students

by Nur Suri binti Majang

Exclusive Class

Kangaroo Math Preparatory Workshop

REGISTER HERE!
<https://forms.gle/aHNEpAcipwomudFo9>

Join us in our *Fabulous Class* to learn more!

OFFLINE

Kangaroo Math Preparatory Workshop

FEE:
EARLY BIRD: RM90/participant
NORMAL FEE: RM100/participant

REGISTER HERE!
<https://forms.gle/aHNEpAcipwomudFo9>

What will you GET by PARTICIPATING in the programme?

- Certificate of Participation
- Morning Refreshment
- Lunch Meal
- Math Workshop with Kangaroo Math's Module
- Kangaroo Math's Souvenirs

6 MAY 2023 (Saturday)
LOWER PRIMARY (Year 1-3)

7 MAY 2023 (Sunday)
UPPER PRIMARY (Year 4-6)

13 MAY 2023 (Saturday)
LOWER SECONDARY (Form 1-3)

14 MAY 2023 (Sunday)
UPPER SECONDARY (Form 4-6)

8:30 AM - 5:00 PM
Kangaroo Education Centre, Setapak, ED

The Kangaroo Math Preparatory Workshop, an annual event since 2018, serves as a crucial stepping stone for students gearing up for the Kangaroo Math competition. This carefully organized workshop, strategically scheduled one month prior to the competition day, aims to equip students with the skills and confidence needed to tackle the challenges of the Kangaroo Math.

Designed with precision, the workshop caters to four distinct categories: Lower Primary (Year 1-Year 3), Upper Primary (Year 4-Year 6), Lower Secondary (Form 1-Form 3), and Upper Secondary (Form 4-6). Each category ensures targeted guidance and tailored instruction to maximize the learning experience.

Conducted at the Kangaroo Math Center in Kuala Lumpur, the workshop unfolds in a single-day session, running from 9 am to 5 pm. To maintain an optimal learning environment, each class is limited to a manageable 20-30 students, allowing for personalized attention and interactive engagement.

One remarkable aspect of this year's workshop is its ability to draw students from various states, including Penang, Negeri Sembilan, Johor, Selangor, and Pahang. This diverse participation not only enhances the overall experience but also reflects the workshop's reputation as a sought-after educational event.

At the core of the workshop is a dedicated focus on teaching effective strategies for solving Kangaroo Math questions, leveraging insights gained from past years' competitions. The curriculum goes beyond traditional teaching methods, incorporating fun and interactive math-related activities alongside team-building exercises. The students were divided into a few groups, and each group constructed their own straw structure as a hands-on activity with geometry. Subsequently, they had the opportunity to present their building in front of the class. This holistic approach not only enhances mathematical skills but also fosters a collaborative and engaging learning environment.

In addition to the immersive learning experience, participants have the opportunity to purchase past year books, providing valuable resources for further practice and reference. The Kangaroo Math Preparatory Workshop stands as a testament to the commitment to academic excellence and the promotion of a positive attitude towards mathematics, making it a must-attend event for students aspiring to excel in the Kangaroo Math competition.



Kangaroo Team @ Durioo+ Marhaban Ya Ramadan

by Nur' Ain Syafiqah binti Bibit



In March 2023, at the Festival Marhaban Ya Ramadan hosted by Durioo+, Kangaroo Math Malaysia actively participated by setting up an engaging booth at IOI City Mall Putrajaya. The two-day event, spanning from 10 am to 10 pm, transformed into an exciting learning hub for visitors keen on discovering more about the Kangaroo Math Competition.

Durioo+, the hosting platform, was a secure space designed for Muslim children. Its content encompassed Islamic values, engaging educational material tailored for Muslim kids, parent-filtered content, entertaining shows for children, and notably, an advertisement-free environment. Thus, the festival featured entertaining activities, including a musical concert by Durioo+ with Mina Mila and Little Ammar, games, and over 30 vendor stalls, and the entry was free.

Our booth was buzzing with excitement, filled with the best activities for everyone. From classic games like Connect 4 and Sudoku that made them think, to brain-teasers like the Rubik's Cube challenging puzzle lovers. The Kangaroo Math Quiz was a super cool game where they flaunted their math skills with challenging questions. Every game offered a unique and enjoyable experience for all who joined in on the fun.



Our main goal at the event was to showcase the excitement and uniqueness of our Kangaroo Math Competition to kids, parents, and teachers. We aimed to captivate their interest, laying the foundation for their future participation in our thrilling competition. Our focus was not only on the fun aspect but also on highlighting the educational value embedded in the Kangaroo Math Competition.

At our booth, we enriched the Kangaroo Math experience by showcasing our exclusive merchandise and past years' competition books. Participants and visitors had the chance to delve into our offerings, explore, and make purchases directly from our booth. Adding to the festivities, we brought our adorable Kangaroo Mascot to the event, injecting an extra dose of joy and excitement into the atmosphere.

A big shout-out to Durioo+ for putting together this fantastic event and letting us be part of the fun. To all the parents, teachers, and kids who stopped by our booth, a massive thank you for adding so much energy to the day!

STEM and Digital Education Carnival 2023 @SMK Seri Gombak

by Anis Shahira binti Hadis



Kangaroo Math Malaysia team at SMK Seri Gombak.

In a celebration of education and innovation, Kangaroo Math Malaysia played a pivotal role in the STEM and Digital Education Carnival 2023 held at SMK Seri Gombak on January 27, 2023. Catering to students aged 13 to 15, the carnival was filled with energy as participants engaged in various activities facilitated by Kangaroo Math Malaysia and other collaborators at the event.

The Kangaroo Math booth was a hub of excitement, offering students hands-on games designed to enhance their thinking skills. The Stacking Cup Battle, 2D Rubic Match, and Jenga provided a playful yet educational environment, fostering teamwork and strategic thinking among the participants. The Paper Plane Toast game added an element of dexterity, rewarding students with higher points for successfully guiding their paper planes through smaller holes. The Colour Cup Mania challenged students' critical thinking abilities, requiring them to match cup colors without lifting them—a true test of problem-solving skills.



A team of students discussing their strategies to win the Jenga game.



Students of SMK Seri Gombak focused on completing the Maze Ball game.

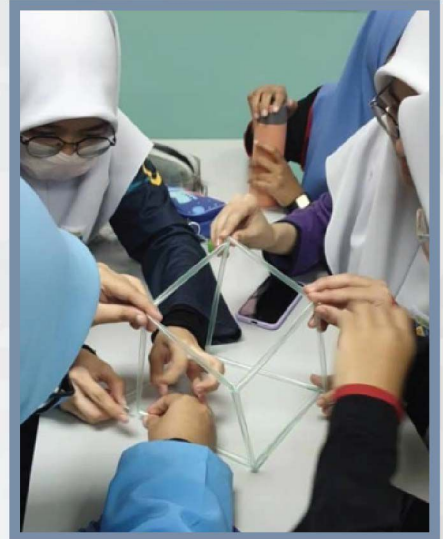


Students trying their best to compete in Stacking Cup Battle.

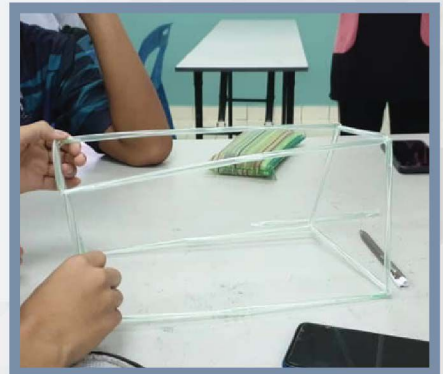
In addition to the interactive booth activities, Kangaroo Math Malaysia hosted a seminar at a separate venue. Here, students were divided into three different sessions and introduced to valuable insights as the Kangaroo Math teams shared the tips and tricks for tackling mathematics through the Kangaroo Maths questions. The seminar facilitated discussions on solutions, providing students with a deeper understanding of mathematical problem-solving strategies. Then, students were also divided into a small group of 4 for a hands-on STEM activity, making a polygon structure using straws. This activity really challenge their creativity and problem solving skills.



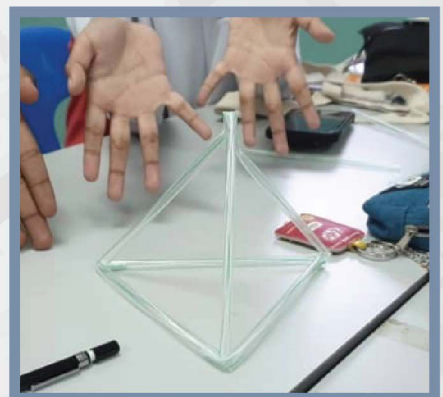
A class full of students for the STEM seminar hosted by the Kangaroo Math Malaysia.



Students joining forces in completing the task given; built a polygon using straws.



Trying out different shapes and sizes for the polygon.



Students showing off their finished structure of straw polygon.

Kangaroo Math Malaysia's dedicated involvement in the STEM and Digital Education Carnival 2023 not only injected an atmosphere of fun and enthusiasm but also nurtured mathematical curiosity and proficiency among young learners. As students explored, played, and learned, Kangaroo Math Malaysia left an indelible mark on the carnival, inspiring a love for mathematics in the hearts of the participants.



The Joyous Camp Of Kangaroo Math

by Erlina Yustika Sari

Guess what unfolded in September 2023? Kangaroo Math Malaysia organized an incredible camp for primary and secondary schools. Mr Haziman Saizirin, Ms Nurul Syalwana Sabaruuddin, and Ms Erlina Yustika Sari, three programme executives from Kangaroo Malaysia, were selected as instructors for the Kangaroo Math Camp.

This camp was titled "The Joyous Camp of Kangaroo Math", a one-day program, scheduled during the school holiday. Its aim to make mathematics both enjoyable and educational for students. The camp incorporates hands-on demonstrations, group activities, and games, providing students with practical applications of mathematical concepts in real-life situations. The program ran from September 23rd to 24th, 2023 for Primary Schools, followed by a session for secondary schools on September 30th and October 1st, 2023, at Penang Math Platform, Kampung Kastam, Gelugor, Pulau Pinang.

On September 23, 2023, 27 students joined the program, spanning across years 1, 2 and 3, including one student from Korea. The following day, September 24th, 2023, marked the enrollment of another 27 students in years 4, 5, and 6. These students came not only from Malaysia but also from diverse countries such as Japan, Korea, the Philippines, and Yemen.



As for the secondary schools, 22 students enrolled on September 30th, 2023, while 19 students were registered on October 1st, 2023.

During this program, students engaged in various activities, including discussing Kangaroo Math past questions and participating in hands-on activities, both individually and in groups. Individual activities involved self-reflection and solving math puzzles. For the self-reflection exercise, students were asked to explain themselves in front of their friends, aiming to build confidence, enhance public speaking skills, and foster a deeper understanding of their dreams and desires. Each activity, including Math Puzzles, had a specific purpose, contributing to the development of students' problem-solving, logical thinking, and mental fluency.

Furthermore, for the group activities, the Kangaroo Math Team provided Math Trivia Quizzes, Geometry Shapes, the Big 5 Five, and Treasure and Trap for the students. These activities encouraged students to expand beyond their textual knowledge, enhance teamwork, and make new friends outside of their schools. Additionally, these activities involved a friendly competition, inspiring students to achieve greater achievement to win among their peers. It challenged students to use their math skills, knowledge and creative ways, offering a challenging and engaging mathematical experience that was both competitive and educational.

As a testament to the impact of the program, students lauded the notion that learning mathematics could be both easier and more enjoyable through engaging activities and games. Students describe the activities as catalysts, driving them to embrace challenges, stay alert, and unlock new realms of knowledge and creativity.



Special thanks are extended to all the students who participated in the Joyous Camp of Kangaroo Math, as well as the Penang Math Platform, Pulau Pinang. We express our sincere gratitude, giving special recognition to Mr. Johnny Ong Seng Huck, Mrs. Jecilyn Loke Mei Har, Mr. Chiang Zhi Zhun & Ms. Nurul Najwa binti Abdul Razak for their support of our programme.

Association Kangourou sans Frontières (AKSF) Annual Meeting at North Macedonia

by Haziman Sairin

From Wednesday until Sunday (11 to 15 October 2023), three members from Ardent Educational Consultant, Mr Suhaimi, Mr Zafree and Mr Haziman, participated in the 31st Annual Meeting of the Association Kangourou Sans Frontières (AKSF) at Ohrid, Republic of North Macedonia. You might be wondering, what is this meeting for? This is an annual meeting where we discuss all matters related to Kangaroo Math for the following year. With the main purpose of discussing the problems to be selected for Kangaroo Math Competition, we have met well-experienced mathematicians and had intellectual-discourse with them (aside from enjoying the beautiful scenery of the Ohrid lake). So, let me share you the experience of attending AKSF.

DAY 0: THE ARRIVAL

After enduring a 30-hour journey, we finally set foot at Metropol Lake Resort Hotel in Ohrid. The bus ride from Skopje International Airport offered breathtaking views, though tinted windows hindered photography. The 4-hour journey to Ohrid, shared with attendees from various countries, culminated in a joyous applause upon reaching the hotel.

Upon arrival, representatives from Brunei and Indonesia, Mr. Hazim and Pak Ridzuan, greeted us. Despite limited time for conversation, the promise of further interactions during the event excited me. Shyness aside, the exhaustion from travel and the age difference with fellow attendees make initiating conversations challenging. Nevertheless, Mr. Roy from Indonesia broke the ice, sharing insights about how Kangaroo Math operates in our respective countries.



Shyness aside, the exhaustion from travel and the age difference with fellow attendees make initiating conversations challenging. Nevertheless, Mr. Roy from Indonesia broke the ice, sharing insights about how Kangaroo Math operates in our respective countries.

Eager to learn from diverse experiences, I looked forward to more interactions throughout the Kangaroo Math Annual Meeting.

DAY 1 AND 2: THE DISCUSSION



Today, we delved into discussions about the problems for the final Kangaroo Mathematics paper. Attendees grouped up, and I joined the Student group, while Haziman and Mr. Suhaimi were with the Junior and Cadet groups, respectively. The discussion flow varied among groups, but the ultimate goal was shared.

The focus was on voting for finalized problems, discarding some and reserving others for potential use. We debated the suitability of marks for selected problems, like one proposed as a 3-point challenge but argued to be a 5-pointer by the working group.

The working group members demonstrated brilliance, offering deep insights into each problem. This, I believe, contributes to the fun, well-thought, and interesting nature of Kangaroo Math problems.

The working group sessions extended into the evening, followed by a night of gift-exchanging where I received many unique gifts from fellow attendees.

In the following day, we continued with the discussions of the problems, focusing on changing the wordings to be more beautiful and proper, and to eliminate any ambiguity.

DAY 3: THE TRIP AND THE DINNER

As we finished our discussion, the Malaysian team, together with Hazim from Brunei, went to the Old Town of Ohrid for a walk. It is a really nice town, and the people are friendly too. We treat ourselves to Middle Eastern foods, bought some souvenirs, and sent postcards to Malaysia.

Then, we visited Pogradec in Albania (border travelling!) and Museum on Water, Bay of Bones. Mostly just quick visits and taking pictures, but it is a very nice experience! We went to a local restaurant which serves many traditional foods.

At night, we had a Gala Dinner, where we were treated with a band performance and good food. Many attendees took this chance to mingle around and make connections, be that making friends or for future collaboration.

This is a memorable experience we had in AKSF. Being involved in with the problem selection in Kangaroo Maths made me appreciate the problems even more, as now I can see that everyone puts their 100% effort in designing, selecting, and editing the problems. It is not just an individual task, it is the collective effort of the mathematicians and educators around the world. With that said, I hope that next year will be an even greater experience as the Annual Meeting will be in Brazil!



Kancil Science Competition Malaysia

by Riyodatul Jannah binti Mahyutan



The Kancil Science Competition 2023 is more than just a contest, it's a celebration of scientific curiosity and a pivotal event for budding scientists in Malaysia. With a staggering participation of 20,465 students from nearly 1,000 schools across the country whether national or international schools, this competition has become a cornerstone for cultivating scientific thinking among primary, secondary, and pre-university students.

One of the remarkable aspects of the Kancil Science Competition is its inclusivity, offering four different categories such as Alpha, Beta, Gamma, and Delta, tailored to different levels within both the Malaysian and International school systems. This ensures that participants face challenges that are not only intellectually stimulating but also age-appropriate.

What sets the Kancil Science Competition apart is its commitment to inclusivity. By offering questions in four languages such as Bahasa Melayu, English, Mandarin, and Tamil, the organizers have dismantled linguistic barriers that often hinder accessibility. This innovation not only simplifies the comprehension of questions, particularly beneficial for primary school students, but also reflects a profound understanding of Malaysia's rich linguistic tapestry.

The competition, held simultaneously on June 14, 2023, in paper based format, added a unique dimension to the students' experience. By bringing the competition to the school premises,



it created a communal atmosphere, fostering a sense of shared enthusiasm and collective scientific exploration.

The release of results on the 8th of September marked a pivotal moment, especially for the students in the Gamma category. Those who secured medals from Gamma category were granted the opportunity to advance to the second round, the Malaysian Junior Science Olympiad (MYJSO), held on the 23rd of September 2023. Six exceptional students emerged victorious, earning the privilege to represent Malaysia in the prestigious International Junior Science Olympiad (IJSO) scheduled to take place in Bangkok, Thailand, from the 1st to the 10th of December. This not only showcases the caliber of talent nurtured through the Kancil Science Competition but also provides these young minds with a chance to shine on an international stage.

Beyond the allure of victory and recognition, the Kancil Science Competition emphasizes the broader goal of bringing together budding scientists. It serves as a melting pot of curiosity and enthusiasm, allowing participants not only to compete but also to forge friendships and revel in the joy of scientific discovery. It's a celebration of the wonders of science, where the journey itself is as rewarding as the destination.

If you missed the 2023 competition, don't worry! Registration for the 2024 edition opens on December 18, 2023. So, get ready for the next round of the Kancil Science Competition and another chance to embark on an exciting journey of scientific discovery!

CATEGORY	ALPHA	BETA	GAMMA	DELTA
Malaysian School System	Year 1, 2 & 3	Year 4, 5 & 6	Form 1, 2 & 3	Form 4, 5, 6 & Pre-U
International School System	Year 1, 2 & 3	Year 4, 5 & 6	Year 7, 8 & 9	Year 10, 11 & 12



Idrissi International School



Sekolah Kebangsaan Bandar Baru Putera

Kancil Science Road Tour 2023: A Mini Science Seminar for Malaysian Students

by Muhamad Azrul bin Jantan

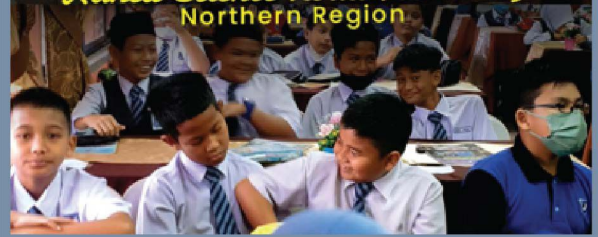
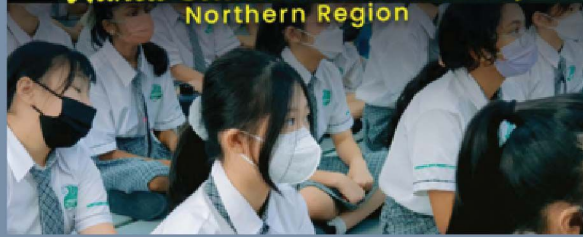
The Kancil Science Road Tour 2023 featured a mini science seminar held in various schools across Malaysia. Organized free of charge by Kancil Science Malaysia, the largest science competition in Malaysia for students aged 7 to 18, the road tour aimed to introduce the competition to students and teachers while providing tips and tricks on how to answer science questions.

A total of 54 schools were registered for this road tour. Out of these, we successfully visited 30 schools across Malaysia. The road tour commenced from the northern region and concluded in the Borneo region, spanning from January 13 to February 16, 2023. Each session for every school lasted approximately 2 hours and was conducted in either Malay or English.

The highlight of the seminar was the enthusiastic participation of students during the Science Trivia. Not only did students gain insights into the competition's format, but they also had the opportunity to tackle sample questions from the Kancil Science Competition.

In addition to expanding students' scientific knowledge, the Kancil Team contributed to increasing their general knowledge by addressing a few science questions related to Malaysian culture. This unique approach defines the essence of the seminar.

The Kancil Science Road Tour 2023 presents a valuable opportunity for Malaysian students to delve deeper into science and prepare for the Kancil Science Competition, scheduled for June 2023. Beyond individual recognition, the competition serves as a platform for students to be selected for the national team and potentially participate in the International Junior Science Olympiad (IJSO).



Malaysian Team's Journey to International Junior Science Olympiad (IJSO) in Thailand

by Nor Amira binti Mohd Tamizi



Malaysian Junior Science Olympiad (MyJSO) is an annual national level competition in the Natural Sciences (Biology, Chemistry, and Physics) for students who are under sixteen years old. In order for students to represent Malaysia in the International Junior Science Olympiad (IJSO), they have to pass two elimination stages which are Kancil Science Competition and MyJSO.

The medalist (gold, silver and bronze) from Gamma category (student age 13, 14, and 15 years old) in Kancil Science Competition will be automatically eligible to participate in MyJSO. The top six from MyJSO get special training at the IJSO Training Camp before heading to the International Junior Science Olympiad (IJSO) to represent Malaysia.

IJSO Training Camp serves as an intensive preparatory program for participants, offering a comprehensive curriculum. Students engage in lectures, tutorials, and hands-on lab experiments covering diverse scientific topics within physics, chemistry, and biology. This immersive experience is designed to enhance their understanding and proficiency in these subjects.



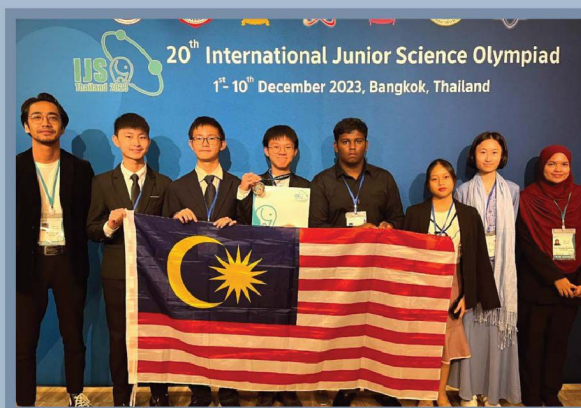
The International Junior Science Olympiad (IJSO) is an annual individual and team competition in the Natural Sciences for students under the age of 15 from around the world. The event aims to promote interest and excellence in science among young students and foster international cooperation in the field of science education. Participants in the IJSO compete in various science disciplines, including physics, chemistry, and biology. IJSO 2023 will be held at Bangkok, Thailand on 1st – 10th December 2023.

Here are the **top six** contestants selected to represent Malaysia at IJSO:

1. Jenna Lee Jie Nah
2. Tay Ru Sheng
3. Khow Jin Xen
4. Ong Ye Zhe
5. Logan Mugunthan
6. Tan Zen Ee

On December 1, 2023, teams from 54 countries were introduced during the IJSO 2023 opening ceremony at the Queen Sirikit National Convention Center in Bangkok, Thailand. With the presence of Her Royal Highness Princess Maha Chakri Sirindhorn, it was a special moment that brought together talented students from around the world. The ceremony featured charming Thai ballads and a Khon performance to warmly welcome all IJSO participants.

The top six contestants from MyJSO earn the privilege of attending this specialized training. The camp spans approximately one week, providing an immersive and focused environment for participants to refine their scientific skills. In 2023, the IJSO Training Camp took place at Universiti Malaya (UM), Malaysia, from November 17th to 21st, offering participants a unique opportunity for concentrated learning and preparation before representing Malaysia in the International Junior Science Olympiad (IJSO). Nur Hikmah Mostaffa (Biology), Keshasni A/P Earichappen (Physics), and Dr. Hanim Bakar (Chemistry) are the trainers for IJSO Training Camp 2023.



The top six contestants selected to represent Malaysia at IJSO

On December 3, 2023, team leaders from 55 countries explored Rattanakosin Island, home to famous landmarks such as The Grand Palace, Wat Phra Kaew, and Wat Pho in Bangkok, Thailand. The IJSO academic competitions, which included challenging science tests, started with the Multiple-Choice Question (MCQ) exam on December 3, 2023, followed by the theoretical exam on December 5, 2023. Both events took place at the Grand Fortune Hotel.

Before the practical exam on December 7, 2023, students enjoyed exploring the Ancient City on December 6, 2023, experiencing the relaxing atmosphere of various stunning historical sites in Thailand.

On December 7, 2023, students took the practical exam at the Faculty of Science, Srinakharinwirot University, featuring state-of-the-art laboratories furnished with specialized scientific equipment and supplies.

In terms of results, the Malaysian team secured 1 Bronze medal, won by Jin Xen Khow. Congratulations!



Kancil Science Preparatory Workshop

by Amir Danish

The Kancil Science Preparatory Workshop was held online on 13 & 14 June 2023, from 8:00 pm to 10:00 pm in a zoom meeting room. The registration fee is RM 100 per participant, which includes the certificate of participation, Kancil hardcopied module and Kancil's physical merchandise including bag. The workshop is open for primary, secondary and pre-university students in Malaysia that aims to challenge students' science knowledge through critical thinking, problem-solving, and general scientific knowledge. However, the registration is open only for 80 students for each session. Our greatest pleasure to schools in the Northern Region that participated including;

- SK Sultan Ahmad Tajuddin
- SK Batu Empat
- SK St Xavier Cawangan
- Straits International School Penang
- Northern Lights Private School
- SJKT Ladang Sempah
- SK Seri Intan
- SK Convent Sungai Nibong
- SJKT Ladang Sungai Kruit

The workshop was conducted by qualified and experienced teachers and trainers who have been involved in the Kancil Science Competition and the IJSO for many years. Hence, participants have the opportunity to interact with other participants and share their ideas and experiences.

In particular, the Kancil Science Workshop will help you to:

- Understand the format and structure of the Kancil Science Competition
- Review the syllabus and scope of the science topics covered in the competition
- Learn the tips and tricks to answer the multiple-choice and open-ended questions
- Practice the sample questions and solutions from past competitions
- Therefore, the Kancil Preparatory Workshop is an excellent opportunity for students who want to challenge themselves and to better prepare for the competition.
- Students who participate in the competition and workshop will gain valuable experience and knowledge that will help them succeed in their future endeavors.



KANCIL SCIENCE COMPETITION **MEOW**

KANCIL SCIENCE PREPARATORY WORKSHOP

ONLINE

- **12 June 2023** (Monday)
ALPHA (Year 1-3)
- **13 June 2023** (Tuesday)
BETA (Year 4-6)

8:00 PM - 10:00 PM (ZOOM MEETING ROOM)

What will you GET by PARTICIPATING in this programme?

- Certificate of Participation
- Hardcopied Module
- Kancil's Physical Merchandise including bag

REGISTRATION FEE: RM100/participant
Available ONLY to 80 students for each session.

REGISTER HERE! <https://forms.gle/773VPEDTrccBwtRx6>

Join us in our *Fabulous Class* to learn more!



**WHAT
A
Genius!**

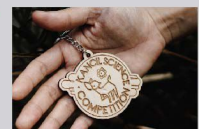


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Beaver Computational Thinking 2023: Nurturing Digital Minds in Malaysia

by Afiqah Maheerah binti Aszahari



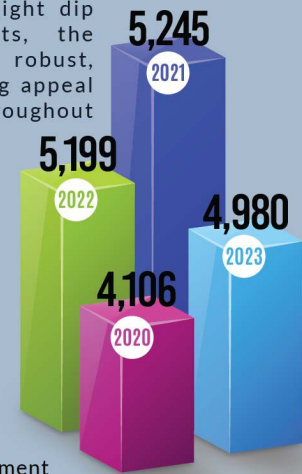
In today's tech world, it's crucial for young minds to understand computational thinking skills. One prominent avenue for this development is the Beaver Computational Thinking Competition, an annual event by Bebras, that attracts young minds from all corners of Malaysia. The 2023 event, held on June 21st, marked another successful chapter in the nation's journey towards creating a digitally literate generation.

With a staggering 4,980 participants, the competition has solidified its place as a pivotal platform for cultivating computational thinking skills among Malaysian students. Once again, Selangor, Sarawak, and Perak stood out as the states with the highest number of participants, showcasing a consistent interest in digital education across different regions of Malaysia.

The primary aim of the Beaver Computational Thinking competition is to stimulate critical thinking, problem-solving, and algorithmic reasoning among students. By engaging participants in challenges that require computational skills, the competition aims to install a mindset that is essential for success in the digital age. The event serves as a catalyst for promoting STEM (Science, Technology, Engineering, and Mathematics) education, encouraging students to explore the exciting world of computer science and related fields.

The Beaver Computational Thinking Competition in Malaysia has experienced significant growth from 2020 to 2023, showcasing an increase in student participation. In 2020, the inaugural year, 4,106 students joined the competition, laying the foundation for a compelling journey. The following years saw a substantial rise, with 5,245 participants in 2021 and 5,199 in 2022 reflecting a growing interest in computational thinking among Malaysian students.

Although 2023 saw a slight dip with 4,980 participants, the numbers remained robust, emphasizing the enduring appeal of the competition. Throughout this period, the Beaver Computational Thinking Competition has played a crucial role in fostering problem-solving skills, creativity, and logical reasoning among students, contributing to the development of the next generation of thinkers and innovators in Malaysia.



Recognition and encouragement are integral components of the Beaver Computational Thinking competition. Of the total participants, 68 students earned the prestigious gold medal, highlighting their exceptional computational thinking abilities. Additionally, 166 students received silver medals, while 237 students were awarded bronze medals, acknowledging their commendable performances in the competition.

This competition is making a big impact on Malaysian students. It's helping them learn important skills for the digital world. The success of the 2023 event, with lots of students taking part and doing well, reaffirms the commitment of students, educators, and organizers to foster a culture of computational thinking excellence in Malaysia. As the nation looks ahead, events like these will undoubtedly contribute to building a generation of innovative thinkers ready to tackle the challenges of tomorrow.





My Digital Maker Fair @ East Coast with Beaver Computational Thinking Fun Activities

by Anis Shahira binti Hadis

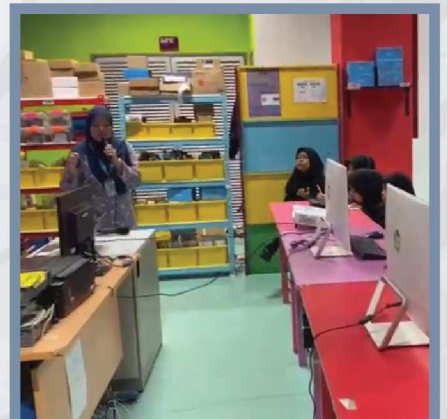
The My Digital Maker Fair @ East Coast, hosted by Jazro and MDEC at Pusat Sains & Kreatif, Kuala Terengganu, emerged as a vibrant hub of STEM learning. The event, held from September 4 to 8, 2023, was a combination of offline and programs. The main event was held on September 7, 2023, and attended by approximately 200 school students in the Terengganu area, spotlighted computational thinking and buzzed with excitement. Attendees explored a spectrum of activities, including engaging showcases from various vendors such as robotics and science exhibitions.

The main attraction of the event was the Beaver Open Challenge, addressing three questions sourced from the Beaver Computational Thinking Competition. Each student had 10 minutes to complete the challenge and obtained their score after submitting the test. The questions varied in difficulty, categorized into six groups based on the students' ages. The Beaver Open Challenge significantly heightened competitiveness among students while introducing them to computational thinking skills through Beaver questions. Successful participants proudly walk away with a hard copy certificate of participation.



ArdentEdu's Beaver Seminar provided an immersive hour-long experience, adding another layer of interactive learning. Students were introduced to Bebras, an international initiative promoting informatics and computational thinking among school students. Following this, students were taught computational thinking through Beaver Computational Thinking questions. Subsequently, they were grouped into six teams, each tasked with cracking a question from the Beaver competition. The students were then presented their best solution in front of the class and transformed the classroom into a lively forum as students shared their problem-solving strategies.

ArdentEdu's impactful contributions not only added excitement to the My Digital Maker Fair but also facilitated a hands-on understanding of computational thinking, leaving a lasting impression on the participating students.



Kijang Economics & Econokids 2023

by Muhammad Shahriq Syazwan



Kijang Economics & Econokids will be organized in Malaysia for the 5th time in 2023. The competition took place online on 12 July 2023. The competition is divided into two categories: Kijang Economics for secondary

The competition consists of multiple-choice questions that test your knowledge and application of economic and financial concepts and skills.

The questions are designed in a unique way to showcase the relevance and importance of economics and finance in everyday life. The competition covers the following topics:

- Capital resources
- Use of financial instruments
- Financial market analysis
- Entrepreneurship
- Business management
- Economic development
- Globalization
- Sustainable development

Clearly, Kijang Economics & Econokids 2023 is a great opportunity for young students to challenge themselves and learn more about economics and financial literacy. It is also a platform for them to showcase their talents and achievements in the field of economics. Don't miss this chance to join the competition and become a young economist!

1st Galaxy, Earth & Language Explorer Competition

by Zafree Zaharidan



The Galaxy, Earth, and Language Explorer Competitions are three annual national competitions in Astronomy, Earth Science, and Linguistics, respectively for students ranging from age 9 to 19. All competitions aim to be the introductory stage to the general knowledge of the study of everything in their respective field. The top performers of each Explorer Competition, which is the top 10% of all participants, will be selected for the Malaysian Astronomy Olympiad, the Malaysian Earth Science Olympiad, and the Malaysian Computational Linguistics Olympiad respectively.

On Saturday 11th February 2023, all three competitions were held simultaneously from 10 AM to 5 PM, giving chance to participants to enter the competitions at their own leisure. While the participants started the competitions at different times, each of them was given one hour and a half to complete the question papers. Within that time frame, all participants' knowledge, passion, and problem understanding were tested and they were ecstatic to learn new things from the problems as well.

It is interesting to note that the year 2023 is also the first year of the explorer competitions! All competitions received a warm welcome, with the Galaxy Explorer Competition receiving 808 participants, the Earth Explorer Competition receiving 359 participants, and the Language Explorer Competition receiving 312 participants. In total, all Explorer Competitions received 1479 participants throughout the nation. The results were then announced on 20th February 2023.

In case you missed the 2023 Explorer Competitions, do not fret! The competitions for 2024 have already opened, and you can register for them now! We hope that many more students will join these wonderful competitions, to not only increase their knowledge of this universe but also to gain a deeper appreciation of this fantastic life we are living.

Malaysian Team's Journey to International Economics Olympiad (IEO) 2023 in Greece

by Aminah Husna



The Malaysian Economics Olympiad (MyEO) is an annual national competition in economics for students aged 13 to 18. This competition is the subsequential to Kijang Economics Competition with medalists automatically qualifying. Top performers in MyEO earn the opportunity to attend the National Training Camp, where the top 5 participants go on to represent Malaysia in the International Economics Olympiad (IEO).

On Saturday, January 28, 2023, the vibrant atmosphere of intellectual competition filled the halls of PPAS Gombak as the Malaysian Economics Olympiad (MyEO) 2023 unfolded. Engaging minds and fostering economic prowess, the competition spanned from 9 am to 3:30 pm, providing participants with a platform to showcase their analytical skills and passion for economics.



INTERNATIONAL
ECONOMICS OLYMPIAD

International Economics Olympiad (IEO) is an annual economics competition for high school students. The competition's activities are designed to stimulate creative problem-solving skills among students interested in Economics, Business, and Finance.

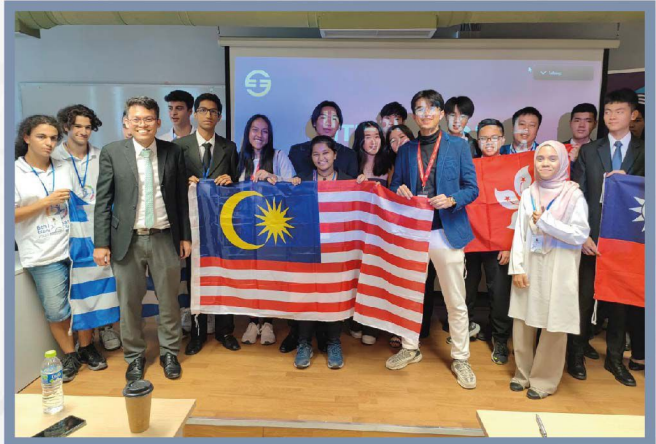
The IEO 2023, held from July 24 to August 2, embraced a unique hybrid format. They had a physical presence in Volos, Greece, co-hosted by the University of Thessaly (UTH). The mix of in-person and online elements created a dynamic and engaging experience. 32 teams participated online and 14 full teams attended the IEO 2023 in-person venue in Volos, Greece. 1 team, Ghana, has split and attended both online and in person. In total, 47 teams from 47 countries and territories were represented by 223 contestants.

The event covered three main parts: Economics, Finance (Financial Literacy), and a Business Case (Case Study). The Finance task is an online simulation testing contestants' skills in making financial decisions and reaching financial and lifetime goals while the Business Case study was prepared by Grant Thornton, Greece, and focused on the concept of a Public Private Partnership between a construction company and the University of Thessaly, Greece. Being the only team part of the IEO, the Business Case study tests contestants' abilities in analytical, conceptual, and quantitative thinking as well as their communication and teamwork skills.

The Olympiad is supported by Eric Maskin, winner of the Nobel Prize for Economics in 2007 with the mission to further Economics and Financial Literacy education in high schools throughout the world.

Hats off to our medal winners! Your achievements speak volumes, making our country proud. The Malaysian team secured 2 silvers and 3 bronzes at the IEO, and to top it off, they clinched 1st place for the Business Case. Congratulations to them!

- Alexander Chen (Silver Medal)
- Senthalini Ambalavanan (Silver Medal)
- Ashwin Asokan (Bronze Medal)
- Thamini Vijeyasingam (Bronze Medal)
- Julius Jun Tao Lee (Bronze Medal)



Malaysian Team's Journey to International Linguistics Olympiad (IOL) 2023 in Bulgaria

by Nor Najia Binti Mahamad Naser



The Malaysian Computational Linguistic Olympiad (MyCLO), an esteemed initiative by ArdentEdu, is at the forefront of promoting computational linguistics in Malaysia, celebrating its fifth year since 2018. Serving as an annual national competition, MyCLO identifies top-performing students from the secondary category of the Language Explorer competition, selecting them to represent the nation in the International Linguistics Olympiad (IOL).

Following the Language Explorer Competition on February 11, 52 from the Secondary category advanced to MyCLO 2023. Held offline at PPAS Gombak on March 12, this challenging three-hour competition featured five subjective questions. The top 13 performers in MyCLO secure coveted spots in the National Training Camp for the International Linguistic Olympiad (IOL) 2023 and the Asia Pacific Linguistics Olympiad (APLO) 2023 on April 9.



Participants diligently taking part in the challenging MyCLO Exam.

From April 7 to 9, the selected students participated in the National Training Camps and APLO 2023. Notably, Malaysia secured the seventh position in APLO, with 12-year-old Ho Janson claiming the 31st position overall, earning a silver medal. This achievement underscores Malaysia's dedication to fostering linguistic talent and excellence in linguistics.



Mrs. Deborah Chow diligently giving her lecture to the participants of the 1st National Training Camp and APLO.



INTERNATIONAL LINGUISTIC OLYMPIAD 2023

The International Linguistics Olympiad (IOL) is one of the 13 international science Olympiads for high school students, and Malaysia has been actively participating since 2018. A dedicated team of four students—Chin Yong Hong, Tan Hong Zher, Lim Ming Wen, and the remarkable 12-year-old Ho Janson—underwent intensive preparation at a week-long national training camp, equipped with quizzes, classes, and mock exams.



(From left) Lim Ming Wen, Tan Hong Zher, and Chin Yong Hong deeply engaged in a discussion to solve past year questions.

Sent to Bansko, Bulgaria, on July 20 for IOL 2023, the event unfolded from July 21 to 29, hosting 205 contestants from 52 teams and 38 countries. Led by Mrs. Anis Shahira Hadis from ArdentEdu, the Malaysian team showcased their linguistic prowess. The IOL's dynamic individual competition emphasizes analytical and problem-solving skills, challenging participants with tasks ranging from deciphering unfamiliar languages to practical linguistic field trips.

Malaysia's commendable success at IOL 2023 was marked by Ho Janson and Lim Ming Wen's exceptional performance, securing Honourable Mentions with positions 83-85 and 87-90, respectively, out of 205 participants. This achievement not only highlights Malaysia's linguistic excellence but also reinforces its standing on the global stage, inspiring a new wave of language enthusiasts worldwide.



(From left) Mrs. Anis, Ho Janson, Chin Yong Hong, Lim Ming Wen, and Tan Hong Zher after the award ceremony of IOL 2023.

Malaysian Team's Journey to International Astronomy Olympiad (IAO) 2023 in Beijing

by Hanif Haron



The Malaysian Astronomy Olympiad is an annual national-level competition in Astronomy and Astrophysics for lower secondary and upper secondary school students. This competition is designed to promote interest in astronomy and astrophysics, thereby providing more exposure to the related field. MYAO is also a platform to choose the top six students to represent Malaysia in the International Astronomy Olympiad (IAO) 2023 in Beijing.

The participants eligible to compete in MyAO 2023 are selected from the top 10% of students who participated in the Galaxy Explorer Competition 2023. The total number of participants for MyAO 2023 is 73 students from across Malaysia. The competition was held at the Perbadanan Perpustakaan Awam Selangor (PPAS) Gombak on Sunday, March 12, 2023. Out of the 73 participants, the top 12 students were selected for the National MyAO Training Camp.

The first physical MyAO training camp was held at PIXO Observatory, Tech Dome Penang, Georgetown, Pulau Pinang, from June 1st, 2023, to June 5th, 2023. The trainers for this training camp were Dr. Chong Hon Yew and Mr. Daim, with the assistance of a member of the Astronomical Society of Penang. The contents of the training camp include an introduction to the syllabus of the International Astronomy Olympiad (IAO), theoretical, practical, observational parts of the IAO, and problem-solving of past questions of IAO, including an explanation of the concepts involved in the questions.

The International Astronomy Olympiad (IAO) is an annual competition for students aged 14 to 18 years old, selecting the best from around the world. It has been held every year since 1996. This year, Beijing, China, was chosen as the host for the 27th IAO. It is organized by the Authorized National Representative (Astronomical) Organization (ANRAO). More than 200 outstanding students aged 14 to 18 from all over the world will meet during the IAO to test their knowledge and skills in the fields of Physics, Chemistry, Biology, Mathematics, and Astronomy.

IAO 2023 was hosted by the Beijing Planetarium from the 6th to the 14th of November 2023. The Olympiad was conducted physically and participated in by 9 countries. The Malaysian representative consists of 3 Alpha students, 2 Beta students, and 1 Gamma student and is led by professional and experienced Team Leader and Jury Member, Mr. Mohammad Afiq Dzuan bin Mohd Azhar, and also Mr. Thum Tuck Keong and Mr. Lim Chee Hoe as observers.

Team Malaysia managed to bring home 4 bronze medals through Ng Kin Him, Liew Ze Wei, Lucas Cheah Hoe Yeen, and Yahaya Basiron. Ng Kin Him was also awarded the Best Drawing Award. Congratulations to all members of the team! We are so proud of them!



Malaysian Team's Journey to International Linguistics Olympiad (IOL) 2023 in Bulgaria

by Muhammad Hadhri



International
GeoScience
Education
Organisation

Malaysian Earth Science Olympiad (MyESO) is an annual, national school-level competition that introduces earth science knowledge to secondary school and pre-university students in Malaysia. This competition was established since 2017 and has attracted thousands of students from all over Malaysia and it serves as a platform to select representatives for the International Earth Science Olympiad (IESO). Starting from 2023, MyESO is the subsequent to Earth Explorer Competition with medalists automatically qualifying.

On 11th March 2023, MyESO was held at Perbadanan Perpustakaan Awam Selangor (PPAS) Daerah Gombak. A total of 36 out of 73 local medalist (gold, silver & bronze) from Earth Explorer Competition were participated physically and 13 students participated through online. The duration of the competition, spanning the entire day from 9 am to 5 pm, underlines the comprehensive nature of the event. The incorporation of both objective and theory papers ensures a well-rounded assessment of the participants' earth science knowledge.



As many 16 best students from MyESO was invited to participates in the National Training Camp that was held from 29th May until 2nd June 2023. The 5-day camp, featuring expert trainers in various Earth science fields, provides a rich learning experience for the participants. It's commendable that the students had the opportunity to learn from specialists in geophysics, geology, meteorology, astronomy, and oceanography. This diverse range of subjects ensures that the students receive a well-rounded education in Earth sciences.

On the last day of the training camp, the students were having a test as a practical assessment of the students' knowledge and understanding gained throughout the camp. From the result, 4 best students were selected to represent Malaysia at the International Earth Science Olympiad (IESO) 2023. This process not only ensures that the selected representatives are among the very best but also provides them with specialized training and preparation to compete at the international level.

The International Earth Science Olympiad (IESO) is an annual competition for secondary school students (students not older than 18 years old on July the 1st of the year of the Olympiad). The students have to test their skills in all major areas of Earth sciences, including geology, geophysics, meteorology, oceanography, terrestrial astronomy and environmental sciences. IESO, was founded as one of the major activities of the International Geoscience Education Organization (IGEO). IGEO is affiliated to and sponsored by International Union of Geological Sciences (IUGS). This year, IESO took place on 20th August until 26th August 2023 and was held virtually.

The diversity of test types in the IESO, ranging from individual tests like Data Mining to group activities such as National Team Field Investigation (NTFI), showcases the holistic nature of the competition. Each test challenges students in various dimensions of Earth sciences, promoting a well-rounded understanding of the subject.

The NTFI, involving a field investigation at Batu Caves, adds a practical and hands-on element to the competition. The three-day project not only requires knowledge but also the application of skills and experience to yield the best results for presentation to the judges. Even with one team member unable to join physically, the team demonstrated exceptional teamwork and commitment. A special commendation goes to the team leader, Ms. Nur Nadwa Syahirah, for her instrumental role in guiding the team and ensuring the success of the project. Her expertise and willingness to share knowledge, skills, and experience undoubtedly contributed significantly to the team's achievements.



Congratulations to the Malaysian Team for their outstanding achievements in the challenging virtual setting of the IESO 2023. Securing 3 silver medals and 1 bronze medal in the Data Mining Test (DMT) is a remarkable feat that reflects the team's excellence and dedication. Furthermore, the additional bronze award for the Earth System Project (ESP) adds another layer of accomplishment to the team's success. This diverse set of recognition across different categories underscores the team's versatility and proficiency in Earth sciences. The hard work, dedication, and expertise of both the students and their trainers have undoubtedly played a pivotal role in this success. Congratulations once again to the entire team for their dedication, excellence and for leaving a significant mark in the IESO 2023. Your achievements are a source of pride for the country!

International Mathematical Olympiad National Selection Test (IMONST)

by Zafree Zaharidan



As the oldest Mathematical Olympiad in the world, the International Mathematical Olympiad (IMO) is the most prestigious mathematical competition that any inspiring student would love to be part of. The road to being one of the six representatives for Malaysia in IMO is an arduous and difficult one, but it is a highly rewarding experience for the students who persevere and persist.

To start the journey, they first have to compete in the national selection test, aptly named the International Mathematical Olympiad National Selection Test (IMONST). There are two parts of IMONST, which are IMONST1 (30 answer-only problems) and IMONST2 (6 full-solution problems). IMONST1 was held on the 23rd and 24th of September 2023 and it received a warm reception of 2800 participants from all over Malaysia. The competition also served as the platform to find and gather the talent pool in our nation. The top 10% from IMONST1 were given the medal awards and were invited to IMONST2 back on the 21st of October 2023. From the results of IMONST2, around 90 students will be invited to the Bengkel IMO (BIMO) where they will be exposed to many broad and deep mathematical topics, conducted by our own students who have represented Malaysia in IMO during the previous years.

The goal of IMONST 2023 is not only to find the top six students to represent Malaysia in the IMO 2024, but also to give students a chance to discover Mathematics that is beyond the school syllabus. From IMONST, we hope that students will find the joy of solving challenging yet accessible problems so that they are aware of the many sides of mathematics.



INTERNATIONAL MATHEMATICAL OLYMPIAD (IMO) 2023

The selection for IMO 2023 began in May 2022, and the selection was finalized in April 2023. IMO 2023 were held in Chiba, Japan from 2nd of July to 13th of July. The six selected students with their achievements in IMO 2023 were:

- Wong Jer Ren (Gold Medal)
- Nelson Loh Kwong Weng (Bronze Medal)
- Goh Wei Jie (Bronze Medal)
- Tan Min Heng (Bronze Medal)
- Leia Mayssa Masyerin (Honourable Mention)
- Chuah Jia Heng (Honourable Mention)



The team were accompanied by Mr Syamil bin Shakir (Team Leader), Cikgu Nur Ainun Binti Mat@Muhammad (Deputy Leader) and Mr Muhammad Zafree Bin Zaharidan (Observer A).

Congratulations to Malaysian IMO team!

Math Enrichment & Olympiad Workshop (MEOW)

by Haziman Sairin



Aiming to unearth potential Math talents, Math Enrichment & Olympiad Workshop, or MEOW, is an ongoing Maths Olympiad class recently held under joint initiative by Ardent Educational Consultants along with several well-known Math Olympiad Trainers.

MEOW exposes the students to maths topics outside the school syllabus under 4 main branches of Mathematics which are; Algebra, Geometry, Combinatorics and Number Theory. Each session spans for 2 hours with the first hour for lecture and the latter for problem solving. The method of MEOW session is mostly online through Zoom Meeting.

Other objectives that MEOW aims for are: -

- Excite Math Olympiad communities to grow among students via friendships and learning together
- Create well-equipped contestants to participate in Math Competitions
- Train students to be possible candidates to represent the country in International Mathematical Olympiad (IMO)
- Identify and harness potential math talents at an early age
- Help math students to fully realize their potential.

Starting in 2023, several sessions are offered in selected timeslots according to 2 categories - Beginner and Intermediate.

Beginner classes are held every Thursday night (8pm to 10pm) and every Saturday morning (10am to 12pm)

Intermediate classes are held every Friday night (8pm to 10pm) and every Saturday evening (2pm to 4pm)

To date, there are a total of 22 participants who joined the classes throughout 2023. With some students taking more than 10 classes in total. From here, several students showed outstanding performance. Alexander Chew Tian You, one of the participants, managed to qualify through IMONST 1 and IMONST 2 against other math talents. With this, he managed to enter the IMO Camp series which is a preparation camp for IMO 2024 in Bath, United Kingdom.

With this positive feedback in mind, we planned to refine the execution of MEOW for 2024 to ensure more accessibility, better service quality as well as better module quality suited for different age categories.

MATEX @ Faris 2023: A Triumph of Mathematical Exploration

by Farzana Syamimi



The Mathematics Exposition, abbreviated as MATEX @ FARIS 2023 was a dynamic three-day mathematics program held from September 7 to 9, 2023, at SM Sains Tengku Muhammad Faris Petra. The event featured three distinct programs: MATEX Olympiad, MATEX Explorer, and MATEX Ideation, each catering to different sets of students from boarding schools (Sekolah Berasrama Penuh).

Our team was exclusively involved in the MATEX Olympiad, where 102 students from 37 schools came together to embark on a shared journey into the world of mathematical olympiads. The program provided an enriching curriculum that covered a wide range of mathematical concepts, spanning from Number Theory to Geometry. This diverse exposure ensured that participants gained a comprehensive understanding of various mathematical disciplines.

DAY 1: INTRODUCTION TO MATHEMATICAL OLYMPIAD

First off, students took their first steps into the fascinating realm of Mathematical Olympiads. The day commenced with an introduction to the captivating world of Olympiad-style mathematics, setting the stage for an intellectually stimulating experience.

Following the orientation, the students dig into the first topic of the day: Number Theory. Once the lessons concluded, the students faced a practical application of their newfound knowledge – Instructor Haziman Sairin arrange a series of exercises that encouraged collaborative discussion among the participants. This interactive session not only reinforced the lessons but also served as an indicator test for the students' comprehension of the Number Theory topic.

DAY 2: LESSONS AND EXAMINATIONS WITH DETERMINATION

On the second day of MATEX Olympiad @ FARIS 2023, participants dived into new mathematical territories with early morning lessons on combinatorics and geometry. Having established a friendship on Day 1, students felt more at ease engaging in discussions and exchanging knowledge on these closely linked topics.

The day reached a pivotal moment at 3:00 pm when students faced the challenge of the paper 1 examination. With facilitators and the instructor, Haziman Sairin, on hand, they received immediate feedback, sparking a range of emotions from happiness to determination. The results spurred a collective drive to excel in the upcoming paper 2 examination.

As the clock ticked towards 8:30 pm, students braced themselves for the paper 2 examination, a two-hour silent yet intense session where they transferred their acquired knowledge into answers. The day encapsulated a blend of learning, testing, and a determination to further succeed in the mathematical odyssey that MATEX Olympiad @ FARIS 2023 offered.

DAY 3: AWARD CEREMONY OF MATEX @ FARIS 2023

The concluding day of MATEX @ FARIS 2023 reached its pinnacle with the grand award ceremony held at Dewan Sultan Muhammad II, SM Sains Tengku Muhammad Faris Petra. The ceremony marked the culmination of all MATEX programs, creating a momentous occasion to celebrate the remarkable achievements of students over the three-day seminar.

During the award ceremony, the spotlight shone on the MATEX Olympiad, where the top 10 outstanding individuals were announced, each recognized for their excellence and commendable achievements throughout the seminar. This segment of the ceremony not only acknowledged the participants' dedication but also inspired a sense of accomplishment among the entire MATEX community.



The collective celebration of achievements from all MATEX programs underscored the spirit of collaboration and shared enthusiasm for mathematics that defined the seminar. As students, instructors, and facilitators came together to applaud the successes of their peers, the award ceremony on Day 3 encapsulated the essence of MATEX @ FARIS 2023—an empowering journey of learning, growth, and the celebration of mathematical excellence.

A heartfelt gratitude to the incredible organizers of MATEX @ FARIS 2023 for letting ArdentEdu be part of an amazing journey into the world of mathematical olympiads! It was an honor to contribute to this transformative experience for the students, and we're thrilled to have played a role in igniting their passion for mathematics. We hope that our collaboration continues to thrive, shaping a generation with both mathematical brilliance and wisdom for the future challenges!

Award Ceremony 2023

by Muhammad Imran bin Suhaimi



In a spectacular showcase of academic brilliance, the 2023 Awards Ceremony unfolded on October 28, 2023, at Kuen Cheng High School in Kuala Lumpur. The ceremony honored the exceptional accomplishments of primary and secondary school students who clinched gold awards in Kangaroo Math, Kancil Science, Beaver Computational Thinking, Kijang Economics, and Econokids. The ArdentEdu team and committee successfully orchestrated the opening ceremony which inaugurated by our director Mr. Suhaimi Ramly, Mr. Iznan Shamsuddin, and our Guest of Honor, Prof. Dato' Dr. Noraini binti Idris.



In its 11th year, the Kangaroo Math Competition in Malaysia showcased an extraordinary journey, with 47,754 students from 1,552 schools participating. Among them, 688 students achieved the remarkable feat of securing the prestigious gold medal, representing the top 1% of competitors.

The Kancil Science Competition saw impressive participation from 20,380 students representing 914 schools. Among this vast pool of talent, 324 students emerged as gold medalists, showcasing their excellence in scientific inquiry and problem-solving.

The Beaver Computational Thinking Competition, focusing on nurturing computational skills and innovation, engaged 5,000 students from 763 schools. Here, 68 gold medalists were recognized for their proficiency in computational thinking and their potential to drive innovation in technology and computer science. In the realm of economics, the Kijang Economics Competition marked its debut, engaging 2,038 students from 173 schools. There are 22 gold medalists, reflecting their dedication to understanding the complexities of economics and financial decision-making.

The morning session highlighted Kangaroo Math winners. While in the afternoon, accomplishments in Kancil Science, Beaver Computational Thinking, Kijang Economics and Econokids. More than 400 winners attend the award ceremony on that day. Also present, our special guests included representatives from partners such as Pandai Education, POS Malaysia, Penang Maths Platform, I-STEM, Association of Malaysian Alumni of the International Science Olympiads (AMISO), UM STEM Centre, and Persatuan Pendidikan Falsafah Dan Pemikiran Malaysia (PPFPM). The award ceremony also featured captivating performances by selected students who successfully auditioned for Ardent Got Talent.

ArdentEdu presented the Ardent Star Award, a prestigious recognition for teachers and schools that demonstrated exceptional dedication to the Kangaroo Math Competition in Malaysia. This award is given to teachers leading more than 200 participants from their school in all five competitions. A total of 15 schools were selected for this award, with MRSM Tun Ghaffar Baba achieving the highest participation with 327 students, followed by the International Modern Arabic School with 242 students and Garden International School with 228 students.

The event also hosted engaging activities such as games, quizzes, and sharing sessions in the school canteen. Various exciting games like Rubik's Cube, Jenga, Beaver Open Challenge, and Find the Jackpot were featured. Additionally, a Kahoot Challenge was open to primary and secondary school students. We also have a sharing session, moderated by Haziman bin Sairin, included distinguished guests like Malaysian Olympiad 2023 representatives Wong Jer Ren, Alexander Chen, Ashwin Asokan, and others.



Congratulations to all the winners of Kangaroo Math, Kancil Science, Beaver Computational Thinking, Kijang Economics, and Econokids for their outstanding efforts in 2023! The event not only celebrated success but also acknowledged teachers' dedication in shaping our future leaders.



From The Editor

Dear Friends of Tangents,

I do not have much to say since the bulk of the planning, execution, and reporting of all our events are done by our team members, and I will let their reports and writeups in this edition of Tangents speak for themselves. I am extremely proud of the amount and quality of work that the ArdentEdu team has done throughout 2023. We have officially gotten out of the pandemic era, with all the events organized in person and onsite, except for the International Earth Science Olympiad (IESO), which is still run online at separate venues worldwide. Running in-person events takes a lot of resources, be it time, effort, and money. But at the end of the day, everything we have achieved is truly

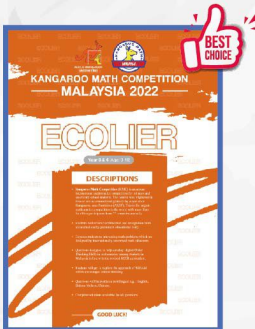
worth the effort. We will continue to do whatever it takes to reach our objectives - attracting more students towards learning and realizing students' highest potential in STEM. It's all about benefiting our children, who are the country's future.

Please find inside this edition of Tangents the reports on all the activities that we have organized or co-organized throughout the year. If any of the activities interest you, you can sign up to participate in our events in 2024 or contact us to explore potential collaborations. Take care, and have a happy 2024!

Cordially,
Suhaimi Ramly
25 December 2023

Grabs our books NOW!

Come to our center or purchase online at shop.ardentedu.com.



Kangaroo Math Books

Discover the Kangaroo Math Competition Malaysia series by SAP Publications Malaysia, categorizing levels from Pre-Ecolier to Student. These six books, spanning 2013-2022, feature questions and solutions from Kangaroo Math Competition Malaysia.



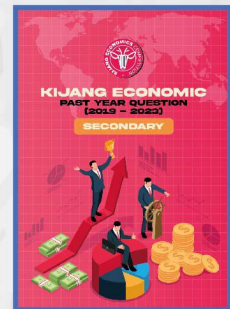
Kancil Science Books

Ardent Educational Consultants Sdn Bhd presents the Kancil Science Competition Past Year Book, covering 2020-2023. Organized for Alpha, Beta, Gamma, and Delta levels, it's tailored for competition participants and science enthusiasts.



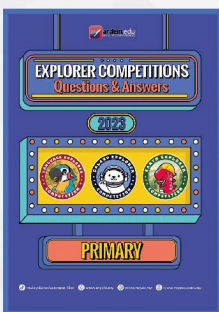
Beaver Computational Thinking Books

Discover the latest release - the Beaver Computational Thinking Competition 2023. This book covers the competition from 2018 to 2023, with questions and proposed solutions for all six categories in one easy-to-read volume.



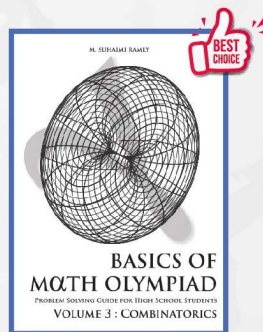
Kijang Economics & Econokids Books

Ardent Educational Consultants Sdn Bhd releases Kijang Econokids and Kijang Economics Past Year 2019-2023, offering challenging multiple-choice questions on economics, entrepreneurship, financial literacy, and business.



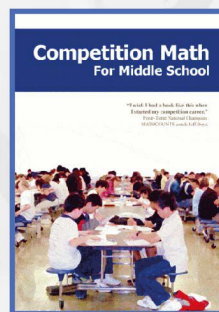
Explorer Competitions Books

Discover ArdentEdu's Explorer Competitions, comprising Language, Galaxy, and Earth challenges. Separate booklets for primary and secondary categories contain tailored questions and answers, ideal for excelling in or revising for the Explorer competition.



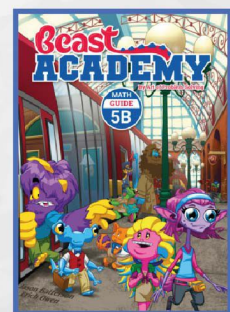
Basics Of Math Olympiad (BOMO) Books

BOMO, a bestseller since its 2015 second edition, consists of four volumes—Number Theory, Algebra, Combinatorics, and Geometry. Tailored for high school students and OMK competition, each book offers essential information, examples, questions, and solutions.



AOPS For Middle School Books

Enhance math skills with Competition Math for Middle School from Arts of Problem Solving, USA. Ideal for math enthusiasts, teachers, and students, this guide features 700+ problems covering various areas with clear solutions, valuable tips, and tricks.



BEAST Academy Books

Arts of Problem Solving's Beast Academy offers a captivating math curriculum for young enthusiasts, with two levels: Level 4 (Ages 9-12) and Level 5 (Ages 10-13). Each level has four volumes, A, B, C, and D, covering twelve topics, with over 400 problems per practice book, ranging from basics to challenging puzzles.