

January-April 2026 Issue



CEMASTEА INFO

Newsletter

IMPACT THROUGH PARTNERSHIPS



An interactive eLearning App-the gateway to Blended Learning developed; VVOB in Kenya in partnership with CEMASTEА

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We are excited to unveil the Issue 23-January to April 2026 Edition of the CEMASTEIA Info Newsletter, a reflection of our collective journey in harnessing technology, learning, and innovation to build stronger educational foundations for the future.

In this edition, we share inspiring stories and milestones that demonstrate how partnership activities have impacted on STEM. This edition captures the spirit of collaboration that continues to drive innovation in STEM education across Kenya and Africa.

Inside, you will find stories of teachers empowered to author STEM journals, learners equipped with future-ready tech skills, and schools transformed through outreach and mentorship. We highlight groundbreaking initiatives such as the deployment of Starlink Internet devices to strengthen digital learning, the African Olympiad Academy Boot Camp preparing students for continental competitions, and the VVOB supported training that integrates gender-responsive pedagogy into STEM classrooms.

We also celebrate leadership legacies, including the retiring CEO who championed STEM on Wheels and expanded teacher training to over 65,000 educators. Her vision reminds us that bold leadership leaves footprints that inspire generations.

This issue underscores that partnerships are not abstract, they are lived experiences that bring coding kits into classrooms, connect rural schools to global resources, and nurture learners' confidence in STEM pathways.

Each article is a testament to the power of shared purpose: when institutions, communities, and partners unite, they ignite movements that transform education and society.

We invite you to read, reflect, and be inspired to continue championing STEM education in your own spaces.

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Message from the Ag. CEO



It is with deep humility and great honor that I assume the role of Acting Chief Executive Officer at CEMASTEIA. I step into this position following the remarkable leadership of my predecessor, whose vision and dedication ignited a powerful STEM movement that continues to inspire learners and teachers across Africa. Her legacy of innovation, collaboration, and empowerment will remain a guiding light as we move forward. I am committed to build on these foundations while steering CEMASTEIA into the next phase of growth.

At CEMASTEIA, we believe that meaningful change in education is achieved when institutions, communities, and partners come together with a shared vision.

Our recent collaboration with Coderina to deliver the Teacher Training Workshop on Coding and Robotics is a shining example of how partnerships can transform classrooms and empower teachers to lead innovation.

Over three days, teachers from five counties engaged in hands-on learning that strengthened their capacity to integrate coding, robotics, and computational thinking into Junior School. This initiative not only enhanced technical skills but also nurtured creativity, collaboration, and problem-solving—competencies essential for preparing learners for the future.

The success of this programme reflects the power of partnerships. By working with the Ministry of Education, Heads of Institutions, trainers, and stakeholders, we ensured that teachers were equipped with both resources and confidence to mentor colleagues, establish coding clubs, and guide learners to excel in national and international platforms.

As we move forward, CEMASTEIA remains committed to sustaining these gains through Communities of Practice, fostering continuous peer learning and professional growth. Together, we are proving that when partnerships are anchored in shared purpose, they create lasting impact for teachers, learners, and the nation.

I extend heartfelt gratitude to all our partners for their dedication. The brighter future of digital learning in Kenya is being built through your collaboration, and together, we will continue to inspire excellence in STEM education.

Happy reading!

Mrs. Gladys A. Masai

Ag. Chief Executive Officer, CEMASTEIA

Jacinta Akatsa Retires as CEMASTEА CEO

By Thuo and FMuchiri

After six and a half years of dedicated service to STEM education and teacher professional development, Mrs Jacinta Akatsa, HSC retired as Chief Executive Officer of CEMASTEА, handing over leadership to Mrs. Gladys Masai.

Mrs. Akatsa's tenure marked a transformative period for STEM education in Kenya, coinciding with the implementation of Competency-Based Education (CBE), expansion of digital learning, and increased focus on teacher capacity development. Under her leadership, CEMASTEА strengthened its role as a national and regional development hub for STEM education by championing practical, learner-centered teaching approaches, and innovation-driven learning.



Ag. CEO Gladys Masai (right) receives symbols of authority from the retired CEO, Mrs. Jacinta Akatsa

During her tenure, the Centre worked closely with the Ministry of Education, the Teachers Service Commission, education stakeholders and other partners to support the transition from the 8-4-4 system to CBE, particularly through the training of Junior School teachers and school leaders. Through these collaborations, at least 65,000 curriculum implementers benefitted from continuous professional development programmes focusing on emerging trends in curriculum delivery, digital literacy, and the integration of artificial intelligence in education.



CEMASTEА 2023-2026 Strategic Plan Launch

Mrs. Akatsa will also be remembered for expanding STEM outreach and experiential learning programmes aimed at inspiring young learners and strengthening interest in science and innovation. Key initiatives included STEM on Wheels outreach programmes in counties, mobile laboratory initiatives for underserved schools, the Kenya Mathematics Olympiad (KMO), STEM robotics and boot camps, Gender-Responsive and Inclusive Education

programmes, Climate Change Education, and Education for Sustainable Development (ESD).



During an exhibition during a KESSHA



With learners during a CSR activity

Her leadership consistently emphasized hands-on, experiential learning that transformed STEM from being perceived as difficult to becoming accessible, engaging, and innovation-oriented.



As one of the speakers in a STEM Conference

Her tenure further saw the expansion of the Centre's mandate in research, training, and ICT integration programmes, as well as strengthened continental and international partnerships. CEMASTEА hosted major conferences, including the 17th Conference on Mathematics, Science and Technology Education in Africa and the 2025

STEMSTIC Adventure Africa Conference, further positioning the institution as a regional driver of educational transformation and innovation in STEM education.

During the COVID -19 pandemic in 2020 and 2021, Mrs. Akatsa was instrumental in guiding the Centre's transition to online STEM training programmes despite the disruptions.

Before joining CEMASTEА, Mrs Akatsa served as Chief Principal in leading schools, Precious Blood Senior School in Kiambu, where she strongly championed girls' participation in STEM education. Riruta, and Mary Hill. She is also an accomplished author of Biological Sciences textbooks.



Addressing participants in the International Confederation of Principals (ICP) 2024 World Convention

CEMASTEА in Partnership with CODERINA Train Teachers in Coding and Robotics

By MMungai & WMagu



Participants engaged in various activities on coding and robotics

CEMASTEА, in partnership with Coderina, hosted a successful three-day teacher training workshop on coding and robotics from 22nd to 24th January 2026. The programme brought together 35 teachers from Kakamega, Busia, Kiambu, Murang'a, and Kitui counties, reinforcing CEMASTEА's mandate to strengthen teacher capacity for effective implementation of Competency-Based Education (CBE) with a focus on coding, robotics, and computational thinking at the Junior School level.

The CEO noted that the training followed robotics kit donations and prior virtual sessions provided to participating schools. Teachers were strategically selected for their role in advancing digital learning, with the aim of deepening practical skills and ensuring optimal use of available resources.

Participants engaged in intensive hands-on sessions covering foundational programming concepts, Scratch, project-based learning, and robotics using LEGO Spike and other kits. The learner-centred approach emphasized problem-solving, creativity, and collaboration, competencies essential for preparing learners for a digitally driven economy. Beyond technical skills, the training enhanced teachers' Pedagogical Content Knowledge (PCK), equipping them to design authentic and meaningful learning experiences. Gender inclusivity was evident, with 24 male and 11 female teachers supported by six experienced trainers, reflecting a shared commitment to equitable STEM education.

Coding is no longer optional but a critical 21st-century skill, and that the future of digital learning in Kenya is brighter because of their dedication and leadership.

Teachers were urged to serve as ambassadors of coding and robotics in their schools and counties and encouraged to mentor colleagues nurture coding clubs, and guide learners to participate confidently in platforms such as the Kenya Science and Engineering Fair (KSEF), Young Scientists Kenya (YSK), and international robotics competitions. The CEO reaffirmed CEMASTEА's commitment to supporting teachers through Communities of Practice established under the partnership, promoting continuous peer learning, collaboration, and sustained professional growth to ensure lasting classroom impact.



Trainers receiving certificates following the training

Deployment of Starlink Internet Devices at CEMASTEА

By: LMakada & AMumbi

In a major boost to STEM education in Kenya, CEMASTEА, in partnership with Grow X Education and SpaceX, has deployed Starlink internet devices to 30 selected schools, enhancing connectivity and access to digital learning. The deployment of Starlink Internet devices by CEMASTEА marks a significant advancement in Kenya's education sector, particularly in strengthening CBE within the STEM pathway. By providing reliable connectivity to 20 Senior Schools and 10 Junior Schools, the initiative ensures that learners can access digital simulations, virtual laboratories, and interactive resources that enhance their understanding of science, technology, engineering, and mathematics. This access supports the development of digital literacy, a core competency of CBE, and equips students with essential technological skills for future STEM careers.

Beyond improving connectivity, the initiative also focuses on empowering teachers and learners alike. Teachers gain access to online professional development platforms and global best practices, enhancing their ability to deliver CBE effectively. Learners benefit from interactive content, virtual experiments, and collaborative projects that promote equity in education by ensuring equal access to quality digital learning opportunities regardless of location. Overall, the program represents a transformative step in education, preparing Kenyan students to compete globally, innovate locally, and contribute meaningfully to national development.



Representing the Principals in receiving the Starlink internet devices is from Top: Principal Veronica Mwai, Kamahuha Girls and Mr. Isaac Okeyo, Chief Principal of Agoro Sare Secondary School

African Olympiad Academy Boot Camp

By: JMora

In a strategic move to bolster Kenya's standing in global academic competitions, CEMASTEА, in partnership with the African Olympiad Academy (AOA), hosted a residential bootcamp from 8th to 12th April 2026 at the Centre.

The intensive program brought together 30 high-achieving students to prepare for the Pan-African Mathematics Olympiad (PAMO) and the International Mathematical Olympiad (IMO). A key highlight of this year's camp was the introduction of specialized informatics training, paving the way for Kenya's participation in the Pan-African Informatics Olympiad (PAIO) in Rwanda. By diversifying beyond mathematics, the initiative, jointly implemented by CEMASTEА, AOA, and the University of Nairobi goes a long way in strengthening Kenya's institutional visibility in high-impact global academic programs.



Ag. CEO CEMASTEА Mrs. Gladys Masai (seated middle) poses for a group photograph with students and coaches of the African Olympiad Academy, Rising stars

Inclusive Education: Teacher Professional Development

By: AMumbi



Ag. CEO CEMASTE, Mrs Gladys Masai giving her remarks during the training

STEM teacher professional development is key in Kenya, and existing policies often emphasize content knowledge over pedagogical approaches that address gender bias, leaving a critical gap in gender-responsive STEM teaching, particularly at the Junior School level.

To respond, VVOB in Kenya and CEMASTE, have partnered in a pilot project to equip teachers with the knowledge, skills and tools to create inclusive STEM classrooms. Through the app-based Teacher Professional Development course, “*Enhancing Gender-Responsive Pedagogy and Assessment in STEM For Junior School Through Blended Learning*” nearly 500 teachers across Nyandarua, Vihiga, Uasin Gishu and Tharaka Nithi counties practice were strengthened and STEM learning outcomes enhance through improved lesson planning, engaging teaching strategies, peer learning and self-reflection.

Delivered through the CEMASTE eLearning App, the 120-hour course combines face-to-face sessions, self-paced online learning, and extended practice. Teachers will receive ongoing support through virtual check-ins after each unit, monitoring visits, and peer exchange. This blended approach offers flexibility, encourages collaboration, and helps teachers integrate digital tools effectively into their classrooms.

CEMASTE Bootcamp Equips Learners with Future- Ready Tech Skills

By: DOrero

"STEM is not just a subject; it's a mindset." This was the prevailing theme at CEMASTE's recent five-day residential bootcamp. Starting April 7th 2026, students from across the country gathered at CEMASTE to dive deep into the world of coding, robotics and mentorship. The atmosphere was electric as learners collaborated on 3D designs and mobile applications. Guided by expert mentors and encouraged by the leadership of Dr. Pius Mutisya and Mrs. Gladys Masai, students explored the limits



Dr. Pius Mutisya, OGW, Chair of the CEMASTE Board of Governors, Mrs. Gladys Masai, Ag. CEO of CEMASTE, speaking to learners during the opening ceremony of the CEMASTE STEM Bootcamp. Learners engaged during the CEMASTE STEM Bootcamp at CEMASTE in April 2026

of their imagination. These experiences go beyond the classroom, helping learners develop the

problem-solving skills and resilience necessary to thrive in the modern job market. We are proud to see these young innovators take their first steps toward shaping Kenya's digital future.

Empowering Teachers to Author STEM Journals

By Dr. MMacharia & D Orero

How do we turn classroom challenges into global solutions? This was the driving question during CEMASTEAs recent two-day training program held in late February.



Participants engaged in the Practitioners Journal Workshop organized by CEMASTEAs, where teachers were trained on authoring STEM related journal articles to document classroom innovations and share best practices

The workshop provided teachers with a comprehensive roadmap for journal article authoring. By learning to document their teaching practices and innovative interventions, participants are now empowered to contribute to the broader STEM community. This training ensures that the ingenious methods used in Kenyan classrooms are captured, peer-reviewed, and shared to improve learning outcomes for students across the nation.

CEMASTEAs recognizes that teachers are more than instructors; they are the innovators and primary observers of their learners' journeys. By empowering them to publish journal articles, the institution aims to boost student success through proven classroom strategies and encourage teachers to turn their daily challenges into scalable solutions. This initiative elevates educators as vital contributors to professional research, effectively bridging the gap between local classroom innovation and the global conversation on STEM education.



“View your classrooms as innovation spaces. The training is about guiding you to document ethically, professionally and with impact.” Ag. Director STEM Research & Innovations at CEMASTEAs, Dr. Karanja Mutitu.

During the workshop, the prevailing message to educators was one of unwavering commitment: never give up on a learner.

Teachers were urged to meet every student's unique pace with

patience and creative intervention. Beyond pedagogy, the training emphasized the power of the teacher's voice. Educators were encouraged to draw inspiration from their most challenging classroom moments; transforming student struggles into published, practical solutions. By staying attuned to emerging global trends and aligning lessons with future career pathways, teachers were reminded that they are the primary "scripters" of education. Their authentic narratives, rooted in real-life classroom experiments, remain the most vital tool for shaping the future of STEM.

The workshop coordinator, Dr. Mercy Macharia, emphasized that the initiative reflects CEMASTEAs broader vision to transform classrooms into hubs of creativity and problem-solving. By encouraging teachers to publish, the Centre is not only enhancing professional development but also ensuring that Kenya's STEM education ecosystem thrives on homegrown solutions. Teachers' voices, grounded in daily practice, become powerful tools for shaping policies, guiding pedagogy, and inspiring learners.

From Arid Ground to Thriving Learning: The Mapunga Agro-STEM Classroom Project

By: Enock Nthiwa Kaunda, Mapunga High School

When I arrived in Lusaka, Zambia for the 2025 Knowledge Co-Creation Programme (KCCP), I expected new ideas. What I did not expect was a complete shift in how I view classroom and school grounds. As a participant in Cohorts 3 & 4: *Driving Innovation Through STEM*, I joined 133 educators from 18 African countries- members of the SMASE-Africa network- in a 456-hour hands-on journey that redefined what practical, Competency-Based Education can look like.

The training, hosted by Zambia's Directorate of National Science Centre (DNSC) in partnership with JICA, was built around one powerful premise: *Real Learning happens when we live the Experience*. We were not passive listeners. We worked in teams to design and build actual learning environments; an Agro-based and Hospitality-themed spaces using low-cost, locally available materials. We surveyed land, tested soil, constructed drip irrigation systems from recycled bottles, and even built structures using salvaged wood. Every subject was woven together; Mathematics guided measurements, Chemistry informed soil amendments, Physics shaped irrigation designs, and Biology drove crop choices.

But the most transformative part was the conviction that this approach is not reserved for well-resourced schools. We were challenged to take the same principles back to our own contexts; however arid, however constrained.

Returning back to Mapunga High School in Kenya's drought-prone Tana River County, I knew I had to act. With the full support of School's Principal, Madam Leila Abdulmajid we launched the Mapunga Agro-STEM Project. What was once a barren school plot is now a living laboratory. Learners lead the work: they calculated the plot's area and perimeter, tested soil pH, built gravity-fed drip irrigation from recycled materials, and planted drought-resistant crops like *Amaranthus*, pumpkins, coriander and kales.

The project does two things at once. Academically, it has turned STEM subjects from abstract textbook content into tangible, daily experiences. Biology, Chemistry, Physics, and Mathematics are no longer separate; they converge in every row of seedlings. But the impact goes further. The harvests now supplement the school feeding programme, providing fresh vegetables for over 100 students. Learners see their labour directly nourish their peers, and the sense of agency and pride is unmistakable.

KCCP 2025 gave me the tools, but it is the Mapunga High school learners who have brought the vision to life. What we are doing here is proof that context-relevant, learner-centred STEM education is not only possible in resource-limited settings; it is exactly where it is needed most. My hope is that our story encourages other schools across Africa to look at their own grounds and see not scarcity, but possibility.



Learners harvesting Amaranthus

CEMASTEAspearheads Nationwide training for HoDs on CBE transition

Reaffirming its commitment to continuous monitoring, evaluation, and support, CEMASTEAs recently oversaw a nationwide training initiative through its County Teacher Capacity Development Committees (CTCDCs).

From 7th to 10th April 2026, County INSET sessions were conducted across 45 centers in 40 counties, specifically targeting Heads of STEM Departments.

The workshops focused on the strategic management of the transition to CBE as Grade 9 learners move into Grade 10. This collaborative effort brought together CEMASTEAs staff and key stakeholders from the Ministry of Education, TSC, KICD, KNEC, KSTVET, and KISE. Expert Quality Assurance and Standards Officers (QASOs) specializing in STEM also participated, ensuring that the transition is supported by rigorous academic and professional standards.



County trainers in Mulango Girls, Kitui County

Bridging the Digital Divide: AI Integration Training Reaches 25 Counties

Under the timely theme, “Navigating the Transition: AI Literacy for Senior School Teachers,” CEMASTEAs successfully concluded a series of physical ICT integration training sessions this April. The program reached 2,509 Senior Secondary teachers across 25 counties, significantly enhancing pedagogical skills and the overall quality of education in Kenya.

Conducted in two cohorts from April 13–15 and April 20–22, 2026, the training focused on leveraging Artificial Intelligence to transform the classroom.

Participants gained hands-on experience with the CEMASTEAs Portal, explored the foundations of AI, and developed practical, AI-driven activities for their students. A central goal was the enhancement of learner-centered pedagogy within the Competency-Based Education (CBE) framework, all while promoting the responsible and ethical use of technology. This initiative marks a major step forward in teacher preparedness for the digital age.



Mr. George Kiruja, Coordinator of the Primary Programme at CEMASTEAs, facilitating at Kisii School

Numeracy for Life: Laying the Foundation in Early Years Education

By Dr. K Mutito and DOrero



A group photo with (front row left to right) Dr. Elyas Abdi Jillaow, OGW, Director General Ministry of Education, Dr. Eric Kipkoech Mutai Governor of Kericho county and Governor of Mombasa County, Abdulsamad Shariff Nassir

CEMASTE has announced plans to implement intensive, sustained in-service training for early-years teachers in Kenya, with a strong focus on numeracy content, pedagogy and play-based learning strategies.

Speaking during the Inaugural National Foundational Learning Conference held from March 23–26, 2026 under the theme “Launch, Learn and Lead: Strengthening Foundational Learning in Kenya”, Ag. CEO, Mrs. Gladys Masai emphasized the importance of equipping teachers with

practical skills to strengthen foundational learning. During a panel discussion, CEMASTE’s CEO shared exciting updates on the Centre’s mission to strengthen foundational math skills.

Following a comprehensive assessment of the specific needs in Early Years Education, CEMASTE has developed two specialized training modules for pre-primary (PP1 & PP2) and Grades 1–3. This initiative took a major step forward in December 2025, when 120 master trainers from public teacher training colleges were equipped with these new tools. These experts are now set to roll out the training across 15 counties, bringing practical, research-backed solutions directly into the classrooms where they are needed most.

CEMASTE’s broader mandate in Training and Research includes strengthening teachers’ pedagogical content knowledge, ICT integration and advancing STEM education in Kenya through Continuous Professional Development and school-based activities. The Centre also conducts mentorship and lesson observation that supports teachers to transfer skills learnt during INSET into classroom.

On foundational learning, the upcoming numeracy-specific training will emphasize interpretation of Curriculum Design in the strands of numbers, geometry & measurement. The training aims to bridge theory and practice through peer lesson planning, school-based mentorship and lesson study, core - creation of low-cost learning resources and sourcing for digital resources tailored to early numeracy learning.



Delegates at the CEMASTE Booth during the Inaugural National Conference on Foundational Learning

Mrs. Masai reaffirmed that CEMASTE is on the right trajectory, working closely with partners such as Echidna Giving, Mizizi Elimu Afrika, among others and stakeholders such as the Ministry of Education (MoE) and Council of Governors (CoG) to ensure effective implementation of the interventions.

The conference underscored the need to launch new initiatives, learn from research and lead reforms in foundational education to secure Kenya’s future in Foundational Learning.

CEMASTEА participates in the 29th KPSA Annual General Meeting

By: MMungai & WMagu



Participants learn more about CEMASTEА programmes at the exhibition stand during the Conference

In a strong show of cross-sector collaboration, CEMASTEА participated in the 29th Kenya Private Schools Association (KPSA) Annual Conference and AGM, held in Mombasa from

April 21–23, 2026. Under the theme “Redefining Private Education in Kenya: Bold Leadership, Uncompromising Quality, and Global Excellence,” the event gathered school owners, education leaders, and policymakers to chart a new course for the sector. Throughout the exhibition, CEMASTEА showcased its latest innovations in STEM education, with a particular focus on teacher professional development and CBC integration. Mr. Martin Mungai, Deputy Coordinator of STEM Innovations at CEMASTEА, delivered a keynote presentation on how CEMASTEА’s programs can collaborate with private institutions to build future-ready learning environments. This engagement reaffirmed CEMASTEА’s role as a strategic partner in advancing inclusive, high-quality STEM education across all sectors of the Kenyan school system.

Strengthening County-Level Leadership for STEM Excellence

By RChiira & AMumbi



A section of the participants in discussion groups

In a major step toward enhancing program accountability and impact, CEMASTEА hosted a three-day consultative forum at its Nairobi headquarters from 16 to 18 April 2026 bringing together 118 INSET Centre Principals and 94 County Trainers’ Representatives, all of whom serve as the backbone of CEMASTEА’s operations at the grassroots level. Under the theme “*Enhancing Management of CEMASTEА Activities at the County*

Level,” the forum focused on streamlining delivery and ensuring the sustainability of STEM initiatives. Participants engaged in critical discussions regarding financial accountability, strategies for prudent SMASE fund management, and a review of the 2024/2025 audit reports. The sessions also addressed operational excellence through procurement compliance and explored ways to entrench school-based Communities of Practice through lesson study. CEMASTEА leadership emphasized that these regular engagements are vital for consistency, noting that equipping principals and trainers with the right tools ensures that STEM education continues to thrive across the country. The forum resulted in actionable recommendations that will further strengthen the county-level delivery of CEMASTEА programs, ultimately contributing to improved teaching and learning outcomes in mathematics and science nationwide.

CEMASTEA Honored at DIAR Awards



CEMASTEA Board chair Dr. Mutisya, OGW, Mr. Abdijibar Sanay Board Member, Ag. CEO CEMASTEAs Mrs. Gladys Masai, Dr. Mutitu Karanja Ag. Director of STEM Research and Innovations and members of staff receive the award on the Top 100 organizations Taifa Laureates and DIAR Board Leadership Taifa Patrons

On 27th March 2026, CEMASTEAs was celebrated at the 8th Edition of the Annual National Diversity and Inclusion Awards & Recognition (DIAR) Gala under the theme “Awarding Inclusion, Equity, Impact & Sustainability.” The Centre was recognized among the Top 100 Organizations Taifa Laureates and as a DIAR Board Leadership, Taifa Patron, affirming its outstanding leadership in advancing inclusive education. The award was received by Board Chair Dr. Mutisya, OGW, Ag. CEO Mrs. Gladys Masai and dedicated staff, symbolizing collective commitment to building an equitable education ecosystem.

Remarkable Strides in Disability Mainstreaming

Guided by national policies and the Persons with Disabilities Act, CEMASTEAs has embedded inclusivity into its infrastructure, programmes, and culture. The Centre has enhanced accessibility with ramps, wide pathways, accessible washrooms, modified hostel rooms, wheelchairs, clear signage, flexible seating, and a service charter available in formats such as Braille.

In teaching and communication, assistive technologies and adapted materials support diverse needs, while staff are trained in inclusive approaches, including basic sign language. A Disability Mainstreaming Committee ensures inclusion remains central to planning and operations, and persons with disabilities are encouraged to participate and work across departments. Partnerships with organizations strengthen programme delivery, while sensitization sessions embed inclusive practices.

These efforts ripple outward: teachers trained at CEMASTEAs apply inclusive methods in their schools, creating equitable environments and expanding opportunities for learners with disabilities nationwide.

Recognition at the DIAR Awards affirms the Centre’s commitment to inclusion, equity, impact, and sustainability. By championing accessibility and empowering teachers, CEMASTEAs is shaping classrooms that welcome every learner and building a resilient education system for the future.



Ramps and Rails across the Compound

STEM Outreach and Mentorship at Bungoma County



As soon as the bus arrived at Kapsokwony DEB Comprehensive School, the atmosphere shifted—excitement and curiosity spread among learners and teachers. Within minutes, the compound transformed into a vibrant learning space. Tables displayed innovative resources in mathematics, chemistry, biology, physics, ICT, and logical board games, each carefully chosen to simplify concepts, encourage experimentation, and support Competency-Based Education (CBE).



The day unfolded as a full immersion in interaction, exploration, and discovery. Learners moved from station to station, asking questions, testing ideas, and handling scientific equipment. Laughter blended with moments of deep concentration as concepts once difficult became clear through hands-on practice. Of the 125 Grade 9 learners present, some initially observed from a distance, hesitant but curious. Gradually, they stepped forward, probed, and engaged—learning became self-driven, and confidence grew.



Teachers also benefited by interacting with the resources and observing new approaches. The shared space offered practical strategies for delivering content, directly strengthening classroom teaching and aligning with CBE demands. School leaders have already noted the impact: increased learner confidence, heightened interest in STEM pathways, and stronger preparation for senior school career choices.



From 3rd to 7th March 2026, the CEMASTEAs team reached schools across Bungoma County anchored on the powerful idea that “exposure shapes ambition.” By bringing STEM experiences directly to learners, especially those unable to visit the institution in Karen, Nairobi, outreach bridges the gap—making science tangible, visible, and enjoyable. Inclusivity remains central, with learners of all abilities, including those with special needs, actively participating and being encouraged to pursue STEM.

This initiative is part of broader efforts to improve STEM performance nationwide. Through its Outreach and Mentorship Programme, CEMASTEAs extends beyond training halls into schools, sparking curiosity, building confidence, and guiding learners toward STEM pathways. Beyond the excitement, the programme demystifies STEM subjects and opens minds to future possibilities.

Ultimately, it is not just about equipment or activities—it is about the mindset shift where learners begin to say, “I can do this.”

Learners from various schools in Bungoma County, engage in hands-on science activities during CEMASTEAs STEM outreach

PICTURE SPEAK



Learners from various schools showcase their skills and creativity during the robotics



Various donations of STEM resources by CEMASTEAs to Barchando girls' (l) in Siaya county and Alaru Central mixed school (r) in Homabay County respectively.



Participants learn more about CEMASTEAs programmes at the exhibition stand during the 1st International Conference on Education Leadership, organized by KEMI.



CEMASTEAs staff engaging participants through various exhibitions during the Inaugural Conference on Foundational Learning at White Waters, Mombasa

Testimonial: The Transformative Power of Teacher Professional Development



*Elly Khamonywa Opio,
Uhuru Girls High School -
Lokichar, STEM Educator,
Turkana County*

Teacher professional development is an essential process for all educators. It equips teachers with the necessary skills, knowledge, and strategies to enhance their instructional practices and improve student outcomes. In today's dynamic educational landscape, continuous learning is not a luxury; it is a necessity. Therefore, I strongly advocate for all teachers to actively participate in professional development programs to refine their pedagogical competencies and remain relevant in the classroom.

My own journey in professional development began in 2007 when I was still an untrained teacher. I enrolled in the Strengthening Mathematics and Science in Secondary Education (SMASE) INSET training, a program that would shape the trajectory of my teaching career. I remained committed to this training until 2019, and the skills I acquired during this period have significantly enhanced my teaching effectiveness and professional standing.

The SMASE INSETs, facilitated by the Centre for Mathematics, Science and Technology Education in Africa (CEMASTEa), introduced me to innovative, learner-centered teaching methodologies. These approaches emphasized active student engagement, critical thinking, and practical application of knowledge, principles that have since become the cornerstone of my teaching philosophy, learning belongs to the learner. My dedication and passion for teaching were recognized in 2019 when I was appointed as the school-based Teacher Support System (SBTSS) Coordinator for Turkana County by the Teachers Service Commission (TSC) County Director. This role allowed me to support and mentor fellow teachers, fostering a culture of continuous improvement and collaboration.

I was fortunate to be mentored by experienced CEMASTEa master trainers, including Mr. Kizito, a seasoned biology trainer, and Mr. Waibochi, the liaison officer. Their guidance enriched my understanding of effective pedagogy and inspired me to strive for excellence in every lesson I deliver. As a result, I now feel confident and well-equipped to handle any classroom situation, regardless of the challenges. Beyond my immediate teaching environment, the training empowered me to contribute to broader educational initiatives. I have had the privilege of building the capacity of teachers in refugee camps in Daadab and Kakuma, sharing best practices and fostering resilience in some of the most challenging teaching contexts. In recognition of my efforts and commitment to learner-centered education, I was selected by the Fulbright Teacher Exchange Program as an aspiring fellow for the January 2026 cohort. The interview process heavily focused on learner-centered approaches, an area in which I had already been thoroughly trained by CEMASTEa. This opportunity marks a significant milestone in my professional journey and reaffirms the value of sustained professional development.

I urge my fellow educators to embrace professional development wholeheartedly. It is a powerful tool for personal growth, instructional excellence, and career advancement. Since implementing the strategies I learned, I have witnessed a marked improvement in student performance and a growing interest in biology among my learners. Professional development is not just about acquiring new skills; it is about transforming lives, starting with our own and extending to every student we teach.

Word of Encouragement



“Two are better than one, because they have a good return for their labor: if either of them falls down, one can help the other up.”
— Ecclesiastes 4:9–10 (NIV)



“And cooperate in righteousness and piety, but do not cooperate in sin and aggression.” — Surah Al-Ma'idah (5:2)

FABLE: The Bundle of Sticks



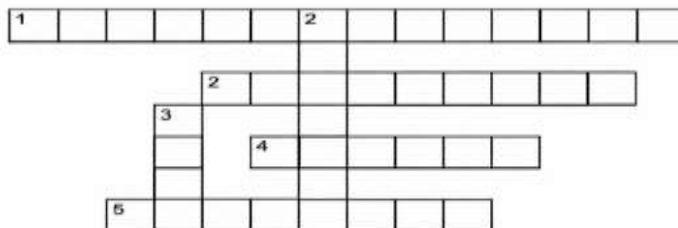
Once upon a time, an old farmer had several sons who were always quarreling. To teach them a lesson, he asked them to break a bundle of sticks tied together. Each son tried, but none could break the bundle. Then the farmer untied the sticks and gave them one by one. This time, each son easily snapped the single stick.

The farmer said, *“My sons, if you stand together in unity, you will be strong. But if you quarrel and separate, you will be weak and easily broken.”* Just as the bundle of sticks is unbreakable when bound together, partnerships in education, innovation, and community work make us stronger. When institutions, teachers, and stakeholders collaborate, they pool resources, share expertise, and create lasting impact that no single effort could achieve alone.

In the spirit of this fable, CEMASTEAs partnerships, whether in teacher training, STEM mentorship, or knowledge sharing, demonstrate that unity and collaboration are the foundation of resilience and progress.

Partnership Crossword

Solve the clues to complete the puzzle!



Across:

1. Working together for a common goal
5. The outcome of strong collaboration

Down:

2. Mutual reliance and confidence
3. Providing help and encouragement
4. Collective effort to achieve success
6. Guiding vision that inspires unity



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