



# ONE PLANET EDUCATION NETWORK®

***SOME RESULTS AND TESTIMONIALS FROM SPECIAL NEEDS SCHOOLS IN ABUJA, NIGERIA  
THAT PARTICIPATED IN OUR RECENT OPEN-RAK STEM SENSOR KIT  
ENVIRONMENTAL SENSOR ASSEMBLY WORKSHOPS,  
AND THEN APPLIED THEIR LEARNING AND NEWFOUND SKILLS  
IN THE CLASSROOM***

***A US EMBASSY OF NIGERIA FUNDED PROJECT LED BY DR BADEWA ADEJUGBE AND THE ROYAL SCHOOL FOR  
EDUCATIONAL THERAPY FOUNDATION (RSETF),  
WITH OPEN AND STEM CONSULTANTS TEAMS***

In January of 2022, 25 school teachers from five pilot schools in Abuja, Nigeria who either were special needs schools or had special needs classes were trained by OPEN Team and supported by RSETF and our STEM consultants on utilizing our STEM Sensor kits in classroom practice.

The teachers were trained on how to do the basic assembly of an Internet-capable environmental sensor which when constructed and programmed, and networked (future phases), can be deployed on farms, forests, and across cities. The device would measure air temperature, humidity, barometric pressure and air quality. Essentially this is an industrial quality weather station, which can also track air quality.

Because it is Internet-capable, information from this sensor can be sent to any computer or smart mobile phone anywhere in the world. OPEN is building a sensor data network across 10 countries, with 3 countries online now and more to join this year. Soon OPEN students joined by scientists across the world will be able to monitor various local environments and compare and contrast data sets to help in ensuring food security, restoring degraded environments, and tackling air and water pollution.

Overall the outcome of the workshop was very positive, teachers told us that it enhanced their teaching practice, learning and bringing hands-on STEM technology with a social purpose into their classrooms. They felt their students would be able to do the complicated necessary work and would gain skills they could use in the technology-related workplace.

So far the application of our STEM Lab sensor kits in the classrooms of students with disabilities (of all types) has been a success. And as this project advances to the next phases of development and training, the future looks promising for these students to be major contributors in helping restore the health of the environments in their communities. Please review the testimonials from several schools here that were recently sent to our teams WhatsApp thread, both teachers and students alike.

**TESTIMONIALS FROM SOME OF OUR TEACHERS AND THEIR STUDENTS  
LEARNING ABOUT AND THEN USING OUR OPEN-RAK STEM SENSOR KITS IN THE CLASSROOM**

**#1**

*Good day our able coordinator of STEM Ambassadors, I Joel Enuma Azubike want to thank US embassy, Educational therapy, and One Planet Network, and all the consultants for a well organized feature of STEAM. During the workshop I really benefited maximally and thank you for such knowledge acquired.*

*For the part of the students they are learning fast and very well, they are also anticipating to see the greatest thing that will come out in the STEAM program, above all we say BRAVO! BRAVO!! BRAVO!!! To everyone thank you, ma and sir for this limitless opportunity God bless you all.*

#2

Good evening sir,

With the introduction of STEM in our school, the special needs students that are always sleeping in the classroom are now the ones dominating the classroom with the way they asked and answer questions. Some of them that are in Jss 3, about writing their final examination (BECE) to leave the school, really wish this system has been in existence before now, that they would have been far better than they are now academically.

As for the regular students it is an added advantage because the STEM teaching gives them an avenue to learn more, since most of the teaching are practical. They see, they touch, they experiment. STEM has actually changed our students' perception to learning; it makes teaching as well as learning easier.

Thanks for coming up with this idea (STEM). God bless your people for the good work and may he strengthen your effort in this course.

From Abdullahi Isiaka Jss kwali.

#3

Another testimonial from Poulina- Kwail School.

The coming of STEM EDUCATION to us at JDSS KWALI FCT ABUJA NIGERIA has greatly influenced our school Administrators, teachers and students positively. A big thanks to Dr Badewa Adejugbe of the RSETF School the STEM education convener, and all the sponsors and resources person's of the STEM education workshop, which took place on 17-21, Jan 2022. And others who made the workshop to be great, you all did well.

Teaching STEM has real improve our teaching skills and methodology.it makes our teaching more practical, The visually-impaired students who learn by what they hear, smell and touch are carried along better. We make sure we call all of them present in a class by their names and ask for their well-being before the lesson begins, this makes them happy, feel among and ready for the lesson, since they can not see if you are smiling at them or not. During lesson, we make them to touch and feel the teaching aid, since they cannot see what we are showing them, while the sighted students look up.

This makes the teaching and learning more practical, easy and efficient. Teaching STEM has expose students to science, modern technology, mathematics, arts and engineering. In fact students with special need (visually impaired) now have hope for a job opportunities in science after learning how to assemble and disassemble environmental sensor kit, though it was not easy for them. This is an addition to God given talent that some of them possess, e.g., some of them can sing thus hoping to be a musician. Finally I share this is a Testimony of a student on STEM I quote, "I have learnt how to couple the environmental sensors and also learnt how to improve Agriculture in and out of Nigeria, it has also exposed me to technology and team work i.e., to work efficiently with other people. It also improved my knowledge on science" thank you sir.

#4

Report from JSS Abuja@30 Buzunkure

We introduced stem as one of the school club and society, which holds every Thursday, and students responded positively. More also, the students increased in number due to the fact that they are showing more interest.

#5

From Rachel Adekoya

TESTIMONY AND STUDENTS' PROGRESS REPORT ON STEM INTEGRATION IN JSS KWALI-ABUJA

This is to commend the efforts of the USA Embassy in Abuja, ONE PLANET EDUCATION and the Royal Foundation of Educational Therapy for organising such a worthwhile workshop, which has helped to broaden our knowledge of STEM integration in the school system. I give kudos to the organisers and sponsors.

The testimonies emanating from the workshop are enormous. Paramount amongst them is that the knowledge acquired at the workshop has shaped our minds and widened our scope of teaching and learning generally, and the way to handle special students in an inclusive education system particularly.

The impact of the workshop on the special students is overwhelming and progressive. There is a tremendous improvement in the academic performance of the special students in the school, which is a milestone of the workshop.

Thanks in anticipation of your further collaboration.

#6

My name is Mr Bitrus Monday (school for the deaf) and I want to share my testimony on knowledge I acquired during my participation at STEAM WORKSHOP. I must say my participation in STEM WORKSHOP was a divine blessing especially in the area of knowledge acquisition. The STEM training exposed me more to the world of modern science and technology devices and how they work. Engineering and Agricultural were also interesting subjects, I also learnt and when I returned to school, I gathered some Deaf pupils and practically taught them all I learnt in the STEM WORKSHOP. To my amazement, alot of them responded positively and it gladdens my heart. If this Deaf pupils continue to be trained, I have no doubt, they will gain maximum knowledge that transfers to their life for the best in the Future.

Thanks to the STEM organisers.

#7

Good morning sir. This is Barnabas Sunday Zoyedah from JDSS Kwali. The STEM program has really been helpful to my students. Last term, I devised the means of dividing the students into groups of 8 to 10, making sure the special students (blind) are fix into each group. I did not know this method was helpful to the blind students until this Monday 23rd May, 2022, when one of the blind students asked why i stopped using that method. That the method made her feel along and she easily understands the teaching because she gets to interact with other students. Though a bit time taking to prepare the class into groups, I now use that method, because it has also help me to learn from the students too. I have to Google more because most of the students are some steps ahead of the teachers these days. Thank you to the STEM program. Teaching and learning has been made easier.

#8

Good evening sir, my name is Jayeola G. Shina and my testimony goes like this:  
The STEM training exposed me to modern technology in teaching and learning of Agricultural science. I was able to used new technology to teach my students in Abuja school for the deafkuje. The system makes it easier for the students to understand. This training is one of the best because it deals with practical and new ideas in using the sensors to teach or train the students. They were able to know the type of crops to plant on different land. Deaf children learn fast through what they have seen more than theory. In conclusion, I want to appreciate the organizer of this training though it was third day I joined them, but I gained a lot. Thanks.

#9

Many thanks to U.S embassy, RSETF and OPEN for coming up with a project that indeed brought the term '**inclusion**' to reality. As a teacher, the workshop on **strengthening educators in special schools to institutionalize stem education for inclusive economic growth and development** surpassed all expectation as been an impactful and effective session. The tempo did not diminish as it was transferred to the ambassadors who have been waiting to come onboard. So much joy it brings to see the physically challenged, visually impaired, hearing impaired, and others with neurological disability who on a normal day would not want to participate in science classes now enjoy the incorporated STEM CLASS. My students now write ambassador before their names on worksheets and register. This alone is GREAT SUCCESS FOR ME  
THANK YOU  
ADESUYAN SEYI RACHEAL  
Royal School For Educational Therapy, Abuja

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#10

The workshop on strengthening educators in special school to institutionalized stem education for inclusive economic growth and development, have made me gain more knowledge and experience mostly in the area of analysis of transformational leadership, the role of stakeholders in the management of stem curriculum, and the role of parents and communities. I also gain the knowledge on the agricultural sensor for sustainable agricultural practice. I also learned alot about the RAK IoT stem kits, which you can use to build different kinds of sensors. The work shop brought up best practice that impacted the stem ambassadors with alot of knowledge and experience. We thank and appreciate the organizers of the program, and the sponsors the US embassy. God bless you.  
BONIFACE SUNDAY  
Royal School For Educational Therapy, Abuja

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#11

The STEM training as change my orientation about teaching science to children with special needs. It as open my eyes to different methodology in imparting to them. And help me to begin to think on how to improves some materials to use in teaching which as also help them to begin to develop interest in science. Thanks  
ANJORIN Olusegun  
Royal School For Educational Therapy, Abuja

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#12

Comment on STEM project  
Enlightening, teachers and students who participated gained knowledge on STE(A)M approaches and opportunities in various aspects. All participants were positive as they return to their various schools.  
SEGUN  
Royal School For Educational Therapy, Abuja

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#13

Success story  
About 45 teachers, administrative staff and students with a disability benefited from the STEM project  
Teachers were empowered with practical knowledge. The project introduced STEM education and it's economic importance. More than 20 students were inaugurated as STEM ambassadors from all the sample schools and they were very motivated and excited. The students demonstrated commitment to the project and exceeded expectations on how they participated during practical sessions.  
KATHRYN OBAIKE, STEM Teacher  
Royal School of Educational Therapy Foundation

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#14

Joseph Ogbeche OKPAJE  
JSS Kwali Abuja,  
From kwali students

*My testimony on Steam is a great achievement, first I was able to teach my students using the approach of Steam, during my lesson my students asked questions and I used some techniques to answer them, it has helped me to better understand various aspects of handling special educational need students and I am looking for greater opportunity to improve more using STEMS-approach. On the part of students this is their testimony:*

#### **TESTIMONIALS FROM SOME NIGERIAN STUDENTS USING OUR OPEN-RAK STEM SENSOR KITS**

*My name is Titila Ishola. I learnt how to fix environmental sensors and how to dismantle the machine, and how to use the fitting materials, so am very much Happy to learn and to be a STEAM AMBASSADOR thanks.*

*Another student said, my name is Cornelius Philimon a special needs student. I learnt how fix and disconnect environmental sensors. I also appreciate the method used by my teachers and how they impact this knowledge to me, I thank you all the token giving to me. May God bless you all.*

*Another student said, My name is Abdulbasit Yakubu I learnt how to assemble how to assemble and disconnect environmental sensors, it enable me to be a electrical engineer, and am still working on a project on windmill this can be done by the use STEAM approach, I also want to thank you very much for the token giving to me May God bless you all;*

*Another student said, My name is Amodu Isaac I really appreciate the STEAM program because it enable me to learn how to assemble and disassemble the environmental sensors and i want to say thank you for the knowledge giving to me on how to use the environmental sensors and i want to also appreciate your effort for the token giving to me, so may God bless you all.*

*Another student said, my name is Alamba Joy I learnt how to couple the environmental sensors. I also learnt how to effectively work with other people. I learnt how to improve science technology and agriculture in and out of Nigeria. Lastly, I want to thank you for the token given to me during the workshop. Thanks you.*

*My name is Abdulhameed Oyiza Humara. I now know the parts of the sensors. I also learnt how to identify them and I learnt how to assemble and dismantle the sensors, and I want to also thank you for the token giving to me during the workshop, thanks and God bless you.*

*My name is Adamu Maryam a special needs student. I learnt how to assemble and disassemble the sensors. I also learnt that an agricultural sensor exists. Thank you.*

*My name is Adamu Abdulsalam, a special needs student. It brought to our notice that agriculture can be made easier with the use of the sensors. It gives specific information on the type of crop to be planted on a particular piece of land. It is being said that modern agriculture has being made simple and easier through the use of machine and sensors and i want to say a very big thanks to you for the token giving to me, may God bless you all.*