ANNUAL REPORT

2024

A YEAR OF GROWTH & RESILIENCE

project kakuma

Free quality education for refugees

BY TAG

Table Of Contents

Introduction

Imagine a place in the middle of the desert, housing nearly 200,000 people. A place where you only get to eat once a day. A camp where there's limited access to electricity, Internet and water. This place is called Kakuma Refugee Camp. Some refugees were born in the camp, others arrived last week while being on the run for war and hunger for months.
TAG believes that education has the potential to address many pressing issues. Education breaks the cycle of poverty, enhances social integration, empowers economic opportunities, improves health and well-being and empowers girls.

This annual report provides an overview of the activities and progress achieved in our 2 Innovation Lab Schools in the Kakuma Refugee Camp. We started our activities in the camp in 2015 through virtual classes and we built our 2 schools in 2020. This report highlights the progress we have made through a great variety of projects and initiatives. It addresses the impact made and the standing challenges. Our schools don't aim to replace other schools. It offers opportunities to students of the neighbouring 5 schools. Each of the schools house up to 2,000 students. Our Lab Schools try to raise the bar of education by offering access to ICT, augment classes Science, Math and English, offer life-changing skills by working in our climate hub or school garden, close the gap by focussing on inclusion, setting up virtual interactions with schools across 6 continents, and join global projects.
Over the past 5 years the Kakuma project has educated 16478 students. We're are pleased to share that in 2024 we 4077 joined one of our projects.

When we arrived in the Kakuma refugee camp in 2020
only 1 in 10 students in the schools I visited had access to text books and pencils.
We're incredibly proud we have been able to bring true change through a great variety of initiatives which you can find in this report.

Koen Timmers

Koen Timmers
Director Help Kakuma vzw

ICT Club

The ICT club allows young people to start using computers, Internet and a variety of tools.

ICT Club Activities

January - December 2024 [weekly] 1.5 hours 100 students

In primary schools, including Bhar el Naam, Fashoda, Jebel Mara, Unity, and Mogadishu, the 2024 focus has been on ICT Club activities and Climate Action Education. The ICT Club has been instrumental in teaching basic computer skills and graphic design using tools such as Inkscape. Storytelling activities, integrated with book club discussions on I Am Malala and filmmaking sessions, have provided students with opportunities to explore scriptwriting and video production.

Objectives of the Activity

- Familiarize students with basic computer operations and software packages.
- Develop skills in graphic design using Inkscape.
- Enhance reading and collaborative learning through the Book Club.
- Introduce students to video production and editing techniques.

Categories

✓ Grades 1-3 for basic ICT activities.
✓ Grades 4-8 for graphic design and video production.
✓ Facilitators included 4 teachers and 2 volunteers.

Term 1: Introduction to Computers

Topics Covered

✓ Basic Computer Operations: Students learned to navigate the desktop, manage files, and understand operating systems.
✓ Word Processing Skills: Introduction to word processors, focusing on formatting documents and editing text.
✓ Internet Navigation: Safe surfing skills and searching techniques were taught, along with experience using online resources.

Methodology
Practical sessions with hands-on activities.

Outcome
Students reported newfound confidence in using computers, establishing a foundation for advanced learning.

Term 2: Graphic Design

Topics Covered

✓ Principles of Graphic Design: Color theory, balance, contrast, and alignment through lectures and design examples.
✓ Introduction to Inkscape: Familiarization with the interface and basic tools. ✓ Basic Image Editing: Practical sessions on tracing bitmap, cropping, and resizing images.
✓ Layers and Selections: Engaging activities to learn about layers and selections.

Design classes

The image showcases primary students from the ICT club engaged in using Inkscape to design a clean and sustainable environment. These learners are actively applying their digital skills to create visuals that reflect their commitment to environmental care. Additionally, they are integrating their knowledge of climate education into their designs, demonstrating a proactive approach to raising awareness about environmental issues. This project not only enhances their technical abilities but also fosters a sense of responsibility towards their community and the planet.

Video editing

In the ICT class, students participated in a video editing project where they recorded their voices to narrate their learning experiences at Maggie School. This project not only improved their technical skills but also provided an opportunity for self-expression and creativity.

Term 3: Book Club and Filming Sessions

Topics Covered

✓ Book Club Discussions: Focused on "I Am Malala," encouraging discussions about education and social justice.
✓ Filming Sessions: Introduction to scriptwriting and basic filming techniques using mobile phones. In the ICT class, students participated in a video editing project where they recorded their voices to narrate their learning experiences at Maggie School. This project not only improved their technical skills but also provided an opportunity for self expression and creativity.

Outcome

Students exhibited creativity and engagement, although high-quality final projects were challenging to produce.

Achievements and Outcomes

- Successfully introduced students to basic computer skills, graphic design principles, and collaborative learning through literature.
- Developed creative thinking and teamwork through filming and editing projects.
- Increased student confidence in using technology for various applications.

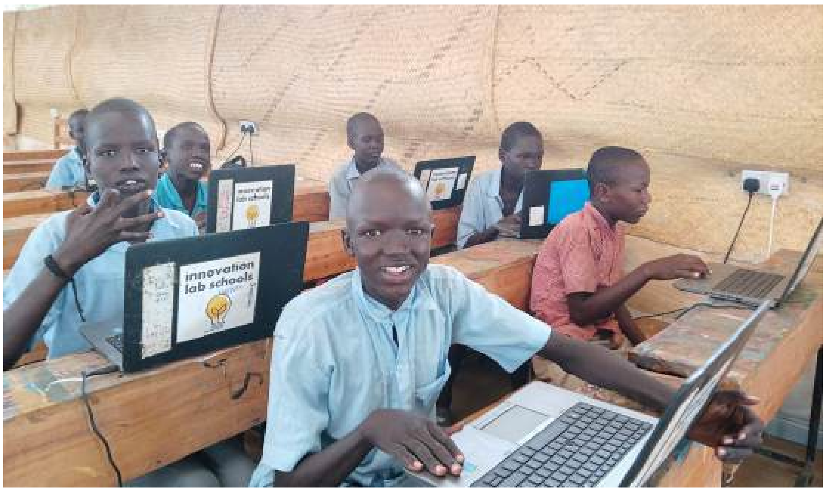
Feedback and Testimonials

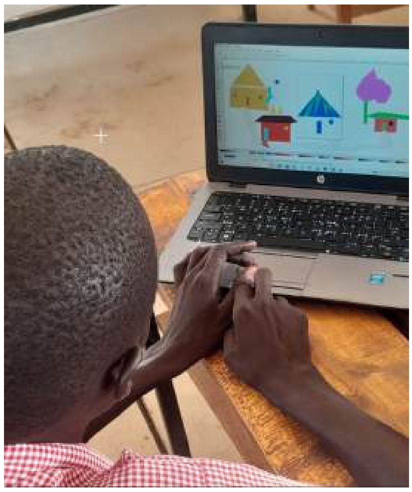
"I feel so much more confident using a computer now!"
Grade 5 student

"Graphic design is fun! I want to learn more about it."
Grade 6 student

"The Book Club discussions made me think about my own education."
Grade 8 student

Uniting Talents,
Fueling ICT-skills





Web Development

As part of Front-End web development classes students learn to develop their own website.

Front-End Web Development

March - October 2024 [weekly] 1.5 hours 75 students

For secondary schools, including Kakuma Secondary School and Star Light Secondary School, the focus has been on teaching Front-End Web Development. Students have been introduced to foundational skills in HTML, CSS, and graphic design, fostering creativity and innovation in digital technologies. These activities aim to prepare learners for advanced studies and potential careers in web development, helping them build a strong foundation in this critical area of technology.
These initiatives are designed to equip students with essential digital and creative skills, preparing them for future educational and career opportunities in the technology sector.

Objectives of the Activity

• Equip students with foundational skills in HTML, CSS, and JavaScript.
• Encourage practical application through project-based learning.

Description of the Activity

The course provided a comprehensive introduction to web development. Students engaged in hands-on projects to create responsive web pages.

Students used Inkscape to design logos, business cards, and social media banners reflecting their personal identities and aspirations. This exercise combined technical skills with creativity, demonstrating how design can communicate their unique qualities and ambitions

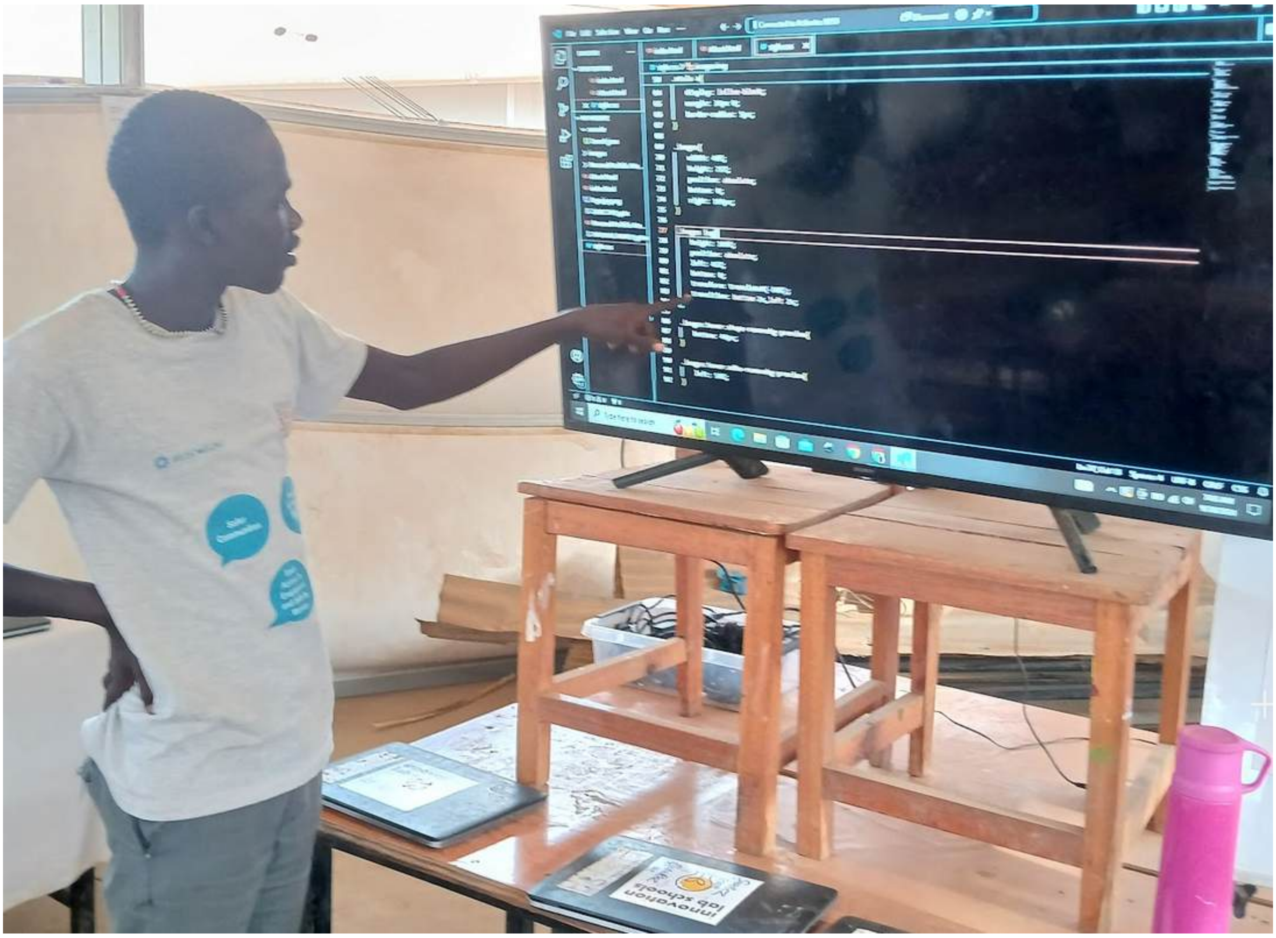
Topics Covered:
• HTML structure and formatting.
• CSS for styling and layout.
• JavaScript for interactivity.

Achievements and Outcomes

• Students successfully created individual portfolios showcasing their work.
• Developed critical thinking and problem-solving skills.

Feedback and Testimonials

"I never thought I could build my own website!" Grade 10 student.



Uniting Talents,
Fueling Innovation




Climate Action Hub

Students learning about sustainability and coming up with solutions for climate change.

Climate Action Hub

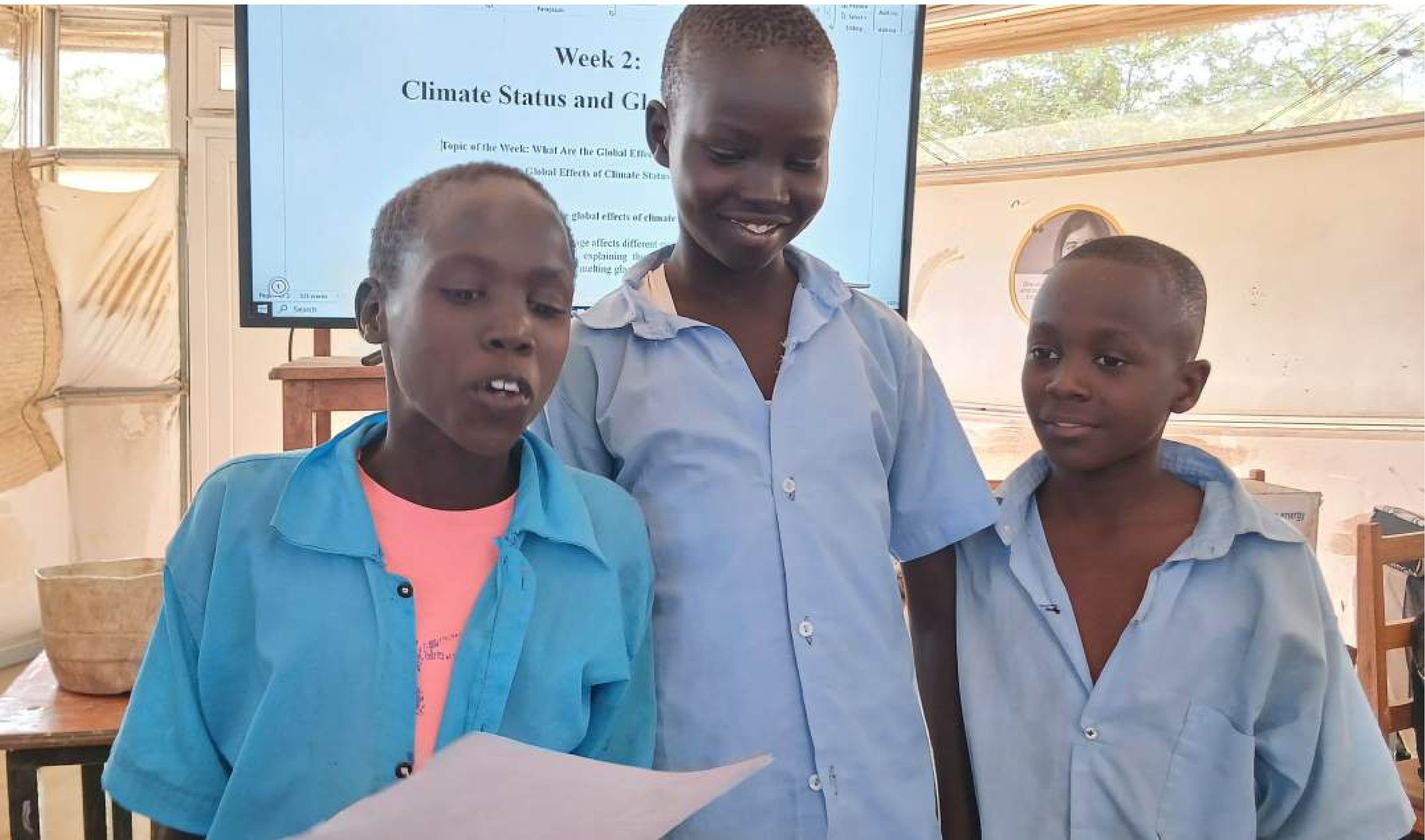
Ongoing throughout 2024 | 1.5 hours | 60 students

The Climate Action Project (CAP) has also been a key component of these efforts. CAP connects students globally through an online platform, encouraging them to discuss, create, and share innovative solutions to address climate change. By sharing local experiences and knowledge, students and educators gain a global perspective, making the learning process authentic and impactful. CAP's primary objective is to nurture global citizens who are well-informed, responsible, and motivated to contribute meaningfully toward a sustainable future.

These initiatives across both secondary and primary schools reflect the commitment to fostering innovation, collaboration, and resilience among students. Despite challenges, such as limited access to resources, these programs continue to empower students by equipping them with the skills and confidence needed to tackle global challenges and achieve personal growth.

Objectives of the Activity

- Engage students in practical solutions to combat climate change.
- Raise awareness about environmental sustainability.



Description of the Activity

Students participated in various activities, including tree planting initiatives and climate education workshops.

Activities Included:

- Soil sorting and drip irrigation system projects.
- Scratch programming focused on climate solutions.
- Planted over 300 trees in the local area.
- Creation of solar house and practices of using solar energy

Achievements and Outcomes

- Planted over 300 trees in Fashoda with environmental club from school.
- Developed Scratch projects simulating climate change solutions.

Feedback and Testimonials

"The tree planting made me feel like I could make a difference and feel hurt when my fellow students cut the branch of a tree"

Grade 6 student

Uniting Talents, **Fueling Sustainability**




Learning on demand

Self-paced and on demand learning via video lessons.

Learning on demand

Ongoing throughout 2024 | 3600 students

The Kakuma center has been available to a stunning amount of 3600 students to learn at their own pace and on demand. They had access to video lessons in 2 ways:

- first they have been able to find video tutorials on YouTube and websites at the Internet
- second they have been able to check resources available through our Rachel device. This device bundles a large amount of videos, websites, articles on an intranet including an offline version of Wikipedia.

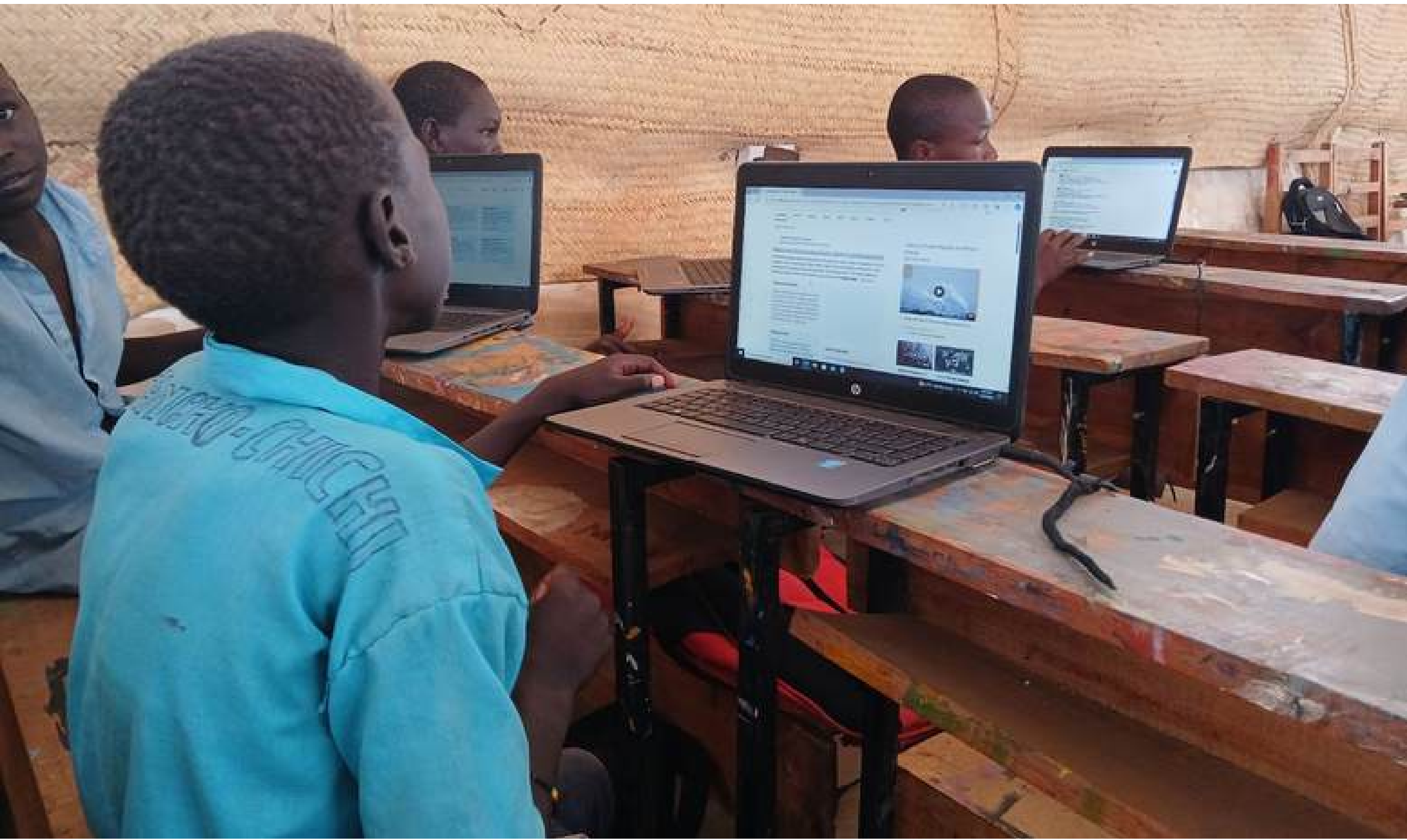
This means that students had access to sources of knowledge regardless there was internet connectivity.

Objectives of the Activity

• Enhance students' learning experiences through video lessons.
• Support self-paced learning and research.

Key Notes

1. Flexible Days: Sessions can be scheduled on any 3 days per week, as determined by the school or teacher’s availability.
2. Daily Attendance: At least 90 students/week (3 sessions × 30 students/session).
3. Yearly Estimate: Approximately 3,600 students attended across a 10-month period.
4. Focus Areas: Teachers may adjust the sessions based on specific topics or grades needing extra attention.



Students accessed specialized lessons through video content while engaging in research activities with their teachers. Grade Three students explored occupations and shared future aspirations in an English lesson, while Grade 8 students engaged in guitar activities and drawing exercises to prepare for the KNEC exam.

The session, held from 11 am to 12:30 pm with 51 learners, enhanced students' understanding of the kidney model project for their KNEC examination. Utilizing video lessons, students engaged in practical demonstrations, allowing for independent learning without direct teacher involvement.

Topics Covered:

- Various subjects aligned with the curriculum.
- Integration of ICT tools for enhanced learning.

Achievements and Outcomes

- Improved understanding of complex topics through visual content.
- Fostered independent learning skills.

Feedback and Testimonials

"Watching videos helped me understand better!"

Grade 5 student

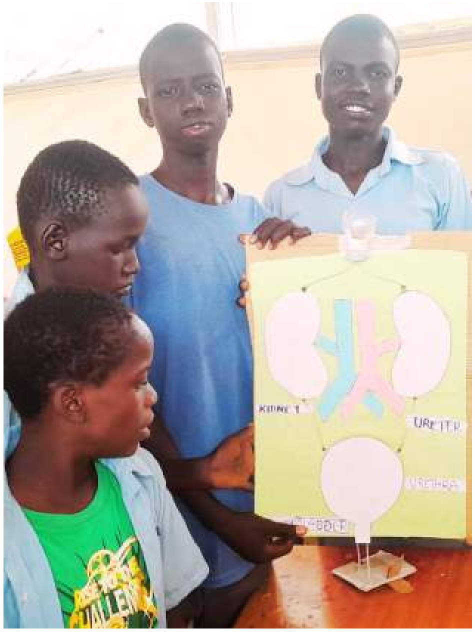
Technology Enhanced Learning

Classes Science, PE, Maths have been augmented by the use of ICT.

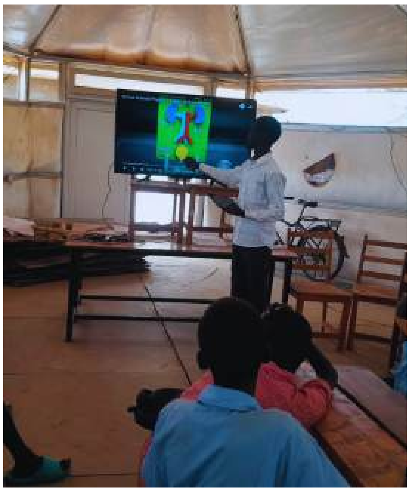
Technology Enhanced Learning

Ongoing throughout 2024 3600 students

Thanks to our learning hubs' infrastructure including 100 laptops, solar panels, television and Internet connection and the resources available: pens, pencils, cardboard, paper, glue guns, etc teachers and students from the 5 neighboring primary schools are able to come over to enrich their classes Science, Physical Education, Math, Literature, etc.



Uniting Talents, **Fueling STEM**



Sign language

We strive for an inclusive community by offering sigh language.

Sign language

Ongoing throughout 2024 1.5 hours 16 students

We establisheded an Inclusion Club that brings together hearing-impaired students and their hearing peers to explore communication through art. This initiative includes eight hearing-impaired students—four boys and four girls—who engage with other learners to discuss community needs in a refugee camp setting.

During our sessions, students use manila paper to express their thoughts and ideas through drawings and illustrations. This artistic approach facilitates meaningful discussions about the challenges faced in the refugee camp and the various ways the community overcomes them. By collaborating in this inclusive environment, students learn to appreciate different perspectives and develop creative solutions to address pressing community issues. The club not only fosters communication skills but also promotes empathy and understanding among all participants, enhancing their social interactions and teamwork.

Art

Art is important for students to express themselves. They have been drawing, painting and learned about music.

Art

Ongoing throughout 2024 | 1.5 hours | 16 students

Grade 7 students explored musical instruments, focusing on the guitar. This project involved creating drawings and learning about different instruments through YouTube videos, enhancing our
understanding of music and its components.

Key components

- Guitar: Students learned about the different parts of the guitar, including the body, neck, strings, and frets. They discovered how these components work together to produce music.
- Other Instruments: Students also explored instruments like the piano, drums, and flute, broadening their understanding of musical diversity.

Collaborative Learning

The students worked together, sharing their drawings and insights from the videos. This collaboration
encouraged discussions about music and inspired creativity.

Objectives of the Activity

- To understand the structure and function of various musical instruments, with a focus on the guitar.
- To develop artistic skills by drawing musical instruments.

Materials used

- Paper and Pencils: For sketching and designing our musical instruments.
- Colors: To add vibrancy to our drawings and make them visually appealing.
- Access to YouTube: Students used online resources to watch tutorials and learn about the history and construction of guitars and other instruments.

FOCUS
Jima working on solar energy

Jima Osiru Micheal, a recent Form 4 graduate living in Kakuma attended our Climate Action Hub during the past years. JIma has created a simple and innovative solar lighting system using recycled materials. He collected used solar panels, a rechargeable battery, and a bulb to build a functional solar circuit that provided light for his studies at night. Jima's resourceful approach highlights the potential for affordable and sustainable solar lighting solutions in refugee camps, addressing the critical need for accessible electricity.

EVENT
Tree Planting

Tree plantings are crucial for combating climate change, improving sustainability, and enhancing environmental resilience. Trees absorb carbon dioxide, reducing greenhouse gases and mitigating global warming. They prevent soil erosion, improve air quality, provide shade, and create habitats for wildlife.
As part of the Climate Action Hub 300 trees have been planted in Fashoda, next to our 2 schools.

In places like Kakuma refugee camp, tree planting is especially important as it helps combat desertification, provides much-needed shade in the hot climate, and improves soil fertility for agriculture. Trees also contribute to sustainability by providing wood for fuel, acting as windbreaks, and supporting biodiversity. Overall, planting trees enhances both environmental and human well-being, making it a vital strategy for a greener future.

School garden

Students have been planting seeds and taking care of crops in our new school garden

School garden

Ongoing throughout 2024

100 students

We decided to start a new initiative in 2023: a school garden.
We managed to secure seeds and were nicely surprised that those seeds developed into crops. The students have been involved and had to take care of the school garden.
Thanks to our water tap the crops survived which made the students truly happy.

Although the refugee camp is based in Kenyan desert, we managed to grow plants with very limited resources! And not only plants, also healthy vegetables in a place where people only have access to food once a day.

Chess club

A chess activity fosters cognitive development, enhances educational opportunities, and strengthens community building among young refugees.

Chess club

1 session

54 students

The chess activities at Maggie School have engaged 54 students, fostering critical thinking and strategic skills through the game. Participants have been honing their abilities in a friendly yet competitive environment. Among these students, two winners will have the opportunity to represent the school in matches against other schools in the Jebel Mara zone. This event not only promotes healthy competition but also encourages camaraderie among peers. The winners will receive recognition and awards from UNHCR, further motivates students to excel and take pride in their achievements. Overall, the chess program at Maggie School serves as a valuable platform for personal development and community engagement.

Students cleaning our 2
Kakuma innovation lab schools.

LEGO Build the Change

Our 2 Kakuma schools are part of the 50 global LEGO Build the Change Showcase Schools allowing students to come up with solutions for environmental threats.

LEGO Build the Change

Monthly sessions throughout 2nd term | 2 hours | 37 students

Our 2 Kakuma schools are part of the 50 global LEGO Build the Change Showcase Schools allowing students to come up with solutions for environmental threats.

Students engaged in building projects using LEGO bricks to explore solutions to environmental issues.

In 2023 the students received a huge box of LEGO bricks. None of the students ever saw nor used LEGO bricks before.

Objectives of the Activity

- Encourage creativity and problem-solving through hands-on LEGO activities.
- Raise awareness about environmental challenges.
- Learning through play

Achievements and Outcomes

- Developed teamwork and collaborative skills.
- Enhanced understanding of climate solutions.

Projects included

- Building models for renewable energy sources.
- Creating public transportation systems.

Feedback and Testimonials

"I loved building with my friends to solve problems!"

Grade 2 student

Uniting Talents, **Fueling HAPPINESS**

Coding for Climate

Students joined the global Coding for Climate initiative involving students across 100 countries.

Coding for Climate

Weekly sessions - March to October | 2 hours | 37 students

Coding for Climate is a global initiative by TAG involving students across more than 100 countries . The Climate Action Club explored Scratch programming, enabling students to create interactive projects focused on environmental sustainability. This initiative builds on their month-long participation in Coding for Climate, where they applied coding skills to develop solutions for climate challenges. The goal is to combine programming expertise with environmental education, empowering students to lead positive initiatives through technology.

Topics Covered

- Basics of Scratch programming.
- Developing projects that simulate climate solutions of planting a tree.

Achievements and Outcomes

- Created interactive projects that raised awareness about climate change.
- Enhanced coding skills and creativity among participants.

Objectives of the Activity

- Teach students coding skills through climate-focused projects.
- Foster a culture of innovation to address climate challenges.

Description of the Activity

Students learned coding through projects that addressed climate issues, utilizing Scratch programming.

Feedback and Testimonials

"Learning to code for a cause was inspiring!"

Grade 8 student

Robotics Hackathon

Students worked in teams to build and program robots using Arduino technology.

Robotics Hackathon

3 days in August | 2 hours | 76 students

Objectives of the Activity

- Introduce students to robotics and Arduino programming.
- Foster teamwork and practical problem-solving skills.

Description of the Activity

Students worked in teams to build and program robots using Arduino technology.

Daily Breakdown:

- Day 1: Introduction to robotics fundamentals.
- Day 2: Practical sessions on Arduino programming and hardware setup.
- Day 3: Group projects to build obstacle-avoiding robots.

Achievements and Outcomes

- Students successfully built and programmed functional robots.
- Enhanced collaboration and innovation skills.

Feedback and Testimonials

"Before this Hackathon, I had no idea what robotics was about. Now, I am determined to pursue a career in computer science."
Student from Unity Primary

"One of the biggest challenges I face in my studies is the lack of resources, especially in a refugee setting like Kakuma. With limited access to laptops, it has been difficult to fully engage with the programming tasks. However, seeing facilitators who are also refugees, yet working hard to excel and share their knowledge, has inspired me to keep going. Their example shows that even with limited resources, we can push through challenges and achieve our goals. This experience has strengthened my determination to continue learning and to strive for a better future, no matter what obstacles come my way."
Student from Vision Secondary

"This opportunity has given me hope for a better future. I want to continue learning and use my skills to help my community."
Student from Mogadishu Primary

"I was fascinated by how we could make a robot move and think. I want to learn more about programming and robotics."
Student from Prince of Peace Primary

Uniting Talents,
Fueling PERSEVERANCE




The project's consultants Franco, Simon and William went on a first teambuilding ever to coordinate future projects and spend some time together.

FOCUS
Team Building

Child Rights Club

Students had meaningful discussions about their rights, the challenges they encounter, and how to overcome these obstacles.

Child Rights Club

October 2024 | 2 hours | 47 students

In this session, led by a child rights educator from LWF, we explored what rights are and why they are important for everyone. We learned that rights are like rules that help keep us safe and happy. For example, everyone has the right to go to school, to be treated kindly, and to express their thoughts.

We discussed some common challenges that people might face regarding their rights, including:
• Not being allowed to go to school: Some children can't go to school because of where they live or because of financial difficulties.
• Being treated unfairly: We talked about how some people might be treated differently due to their skin color, gender, or beliefs.
• Not being listened to: Sometimes, kids feel like their opinions don’t matter, eventhough they do!

Objectives

- To educate students about their rights.
- To discuss the challenges, they face and brainstorm solutions.

Summary

The Child Rights Club welcomed learners from various schools, including Jebel Mara and Mogadishu, Bhar el naam, Uuity and Fashoda.

Together, they engaged in meaningful discussions about their rights, the challenges they encounter, and how to overcome these obstacles. The students showed great enthusiasm as they shared their experiences, fostering a sense of community and support.

Challenges faced

As reported by our Kakuma team

1. Resource Limitations:
There is a lack of sufficient equipment, such as quality cameras for filming and advanced editing software, which hinders the quality of student projects.

2. Internet Connectivity:
Unstable internet access has led to frustrations and wasted time, preventing students from fully engaging with online resources and virtual classes.

3**. Basic Facilities:**
The absence of a water dispenser means that students and teachers must share water directly from the tap, raising hygiene concerns and affecting overall health.

4. Lack of Training Opportunities:
High unemployment within the camp emphasizes the need for practical skills training, which the current curriculum does not adequately address.

5. Hunger and Concentration Issues:
Many students arrive at the learning center hungry, which affects their concentration and energy levels during lessons, leading to decreased motivation and absenteeism.

6. Hot Classroom Conditions:
Overly hot classrooms create a distracting learning environment, making it difficult for students to focus.

7. Limited Practical Learning Opportunities:
A lack of facilities for conducting hands-on projects, like recycling initiatives, restricts students' ability to apply theoretical knowledge in real-world contexts.

8. Water Shortages:
Inadequate water supply makes it hard for students to stay hydrated and maintain hygiene, negatively impacting attendance and engagement.

Future ahead

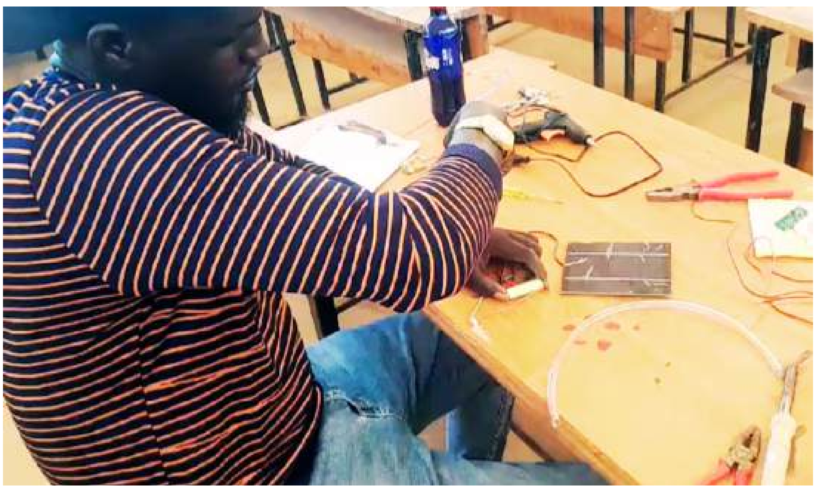
Solar bottle lamp

Imagine waking up in a spot with no electricity, limited access to water and where education is a right but a privilege. A place where teachers typically earn $75 per month. Welcome to Kakuma Refugee camp.
TAG has been working on raising the bar of education in the camp for 10 years. In 2020 we built 2 of our own innovation lab schools hosting many educational activities. During the past 10 years we have identified a lot of issues and with our solar light project we aim to solve a few of those with **ONE** solution.

1/ Plastic pollution
In many African regions plastic waste is being burned (incinerated?) causing plastic and air pollution. What if we can repurpose plastic bottles?

2/ No access to electricity and light
The small Kakuma houses have no electricity meaning they have no light. Meaning students are not able to study during night time. For many households a $0.25 candle is too expensive.

3/ Education is not a priority
Many people don't see a priority in education as they have many other challenges. Youth has to help their parents to earn money.



Our solution: the solar bottle lamp

During the past months we have been working on a solar light which charges during daytime and offers free light during night time. It is assembled on top of a plastic bottle. By putting the right amount of water (⅓) in the bottle, the light is getting amplified. The solar bottles are being created by students who attend our climate action classes. Once the solar bottle lamp is assembled, the students can take it to their homes. This way the students learn STEM and they bring change to their communities while showcasing the true value of education and students becoming creative problem-solvers.

Timeline

- 2024 September > December: **research** phase
- 2025 January: 1 solar bottle lamp up and running
- 2025 February > March: **fundraising** phase
- 2025 April: **pilot** to create 10 solar lights
- 2025 May: **project** with 100 solar lights created by students and brought to community
- 2030 goal: equipping 2,500 households with solar lights

The cost?

$ 25 for 1 solar light which will change 1 households' life.

Our school site
Today

Our 2 Innovation Lab Schools - also known as 'Maggies' have been developed by DMOA Belgium. These are sustainable shelters which are carbon neutral thanks to our solar panels.

The UNHCR field post is providing a water tap which had to be fixed in 2024. We also invested in an iron fence last year protecting the schools.

The activities conducted at the Innovation Lab Schools in Kakuma Refugee Camp during 2024 have provided valuable learning experiences for students, particularly in areas such as Front-End Development, Climate Action Education, and robotics. These initiatives have successfully equipped students with essential digital and creative skills, preparing them for future educational and career opportunities in technology. Despite these successes, several challenges have significantly impacted the effectiveness of these programs. Basic facilities, such as a lack of clean drinking water and inadequate classroom conditions, have affected students' concentration.

This year all initiatives in our 2 schools have reached 4077 students through a great variety of learning activities: ICT-club, design and coding classes, school garden, art, chess club and self-paced learning through digital resources. Students also joined initiatives like Coding for climate, Child rights club, and robotics hackathon. Through sign language classes we proceed in making our project more inclusive.

We are looking forward to new opportunities and partnerships allowing us to keep raising the bar of education in Kakuma Refugee Camp.

Conclusion

Gratitude, Collaboration, **and Continued Success**

Express our sincere appreciation to all partners for their unwavering support and dedication.

“The Kakuma Project is defining the future of education.
It is listed as one of the 16 schools globally.”
2020 World Economic Forum
Schools of the Future report

Finalist of the 2018 UNESCO “prize for innovation in education”

“Education is a fundamental human right. It is an essential tool to build a just, equal and peaceful society in which nobody is left behind.”

HRH Princess Esmeralda of Belgium

“I am a strong believer in the creativity of young people and have witnessed what tremendous power is possible when youthful creativity and passion is harnessed to better the world around us.”

Charlize Theron

Want to know more about the Kakuma Project?
www.projectkakuma.com

Heroes for the Planet documentary, season 1 episode 3:
https://vimeo.com/665168563

Read more about TAG’s mission:
www.takeactionglobal.org/climate-action-education

koen@takeactionglobal.org

project kakuma
Free quality education for refugees

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