

# THE AIDS ARE COST-EFFECTIVE IN IMPROVING SCIENCE TEACHING

## HOW SCIENCE KITS ARE IMPROVING LEARNING IN RURAL SCHOOLS

By Vision Reporter

For decades, performance in science subjects has been poor at Primary Seven, O'level and A'level. Education experts attribute this to a lack of enough science teachers, coupled with no or inadequate laboratories to teach sciences.

In a bid to reverse this, the Ministry of Education and Sports partnered with non-governmental organisations to distribute learning aids to enable teachers simplify science concepts for learners.

### WIDE REACH

"Each year, we have been giving out 334 science kits to schools in 17 districts. We are now in the fifth year. But this time around we have given out to 31 districts. So in total, it means that in this country we have 99 districts that have already benefited from this project," Stuart Nabaasa, the technical programme manager of River Flow International, the organisation that was contracted to distribute the aids, said.

He added that the science kits are clay models of body parts and living organisms, which act as a mini labs for schools that may lack fully-fledged laboratories.

Speaking during a recent

distribution exercise at Mbarara Junior School, Arifunsi Ariho, a teacher, said the aids will help them explain concepts better.

"When you move around our compound, almost each building has that diagram. That is what we have been using, but now with the science kits, the learners will understand concepts better," Ariho said.

### VISIBLE IMPACT

Margaret Mwesiga, the headteacher of Mugongo Primary School in Luwero district, said before they received the kits, performance was always poor.

"But after getting them, we have improved tremendously. Science kits make teaching practical," she said.

Florence Bagangira, the assistant senior education officer of Kyenjojo district, also agreed, saying science is not meant to just be taught using chalk alone.

"With these kits, teachers will help learners understand concepts using their five senses of seeing, feeling, hearing, smelling and tasting. I'm sure that performance will improve," she said.

### TRAINING TEACHERS

Abbey Musoke, a senior education officer for basic education in the education

ministry, said at the commencement of distribution in 2021, performance in the science subject was at its worst.

"When we look at the results, teaching is now more practical and the learners are more motivated. The results are steadily improving," Musoke said.

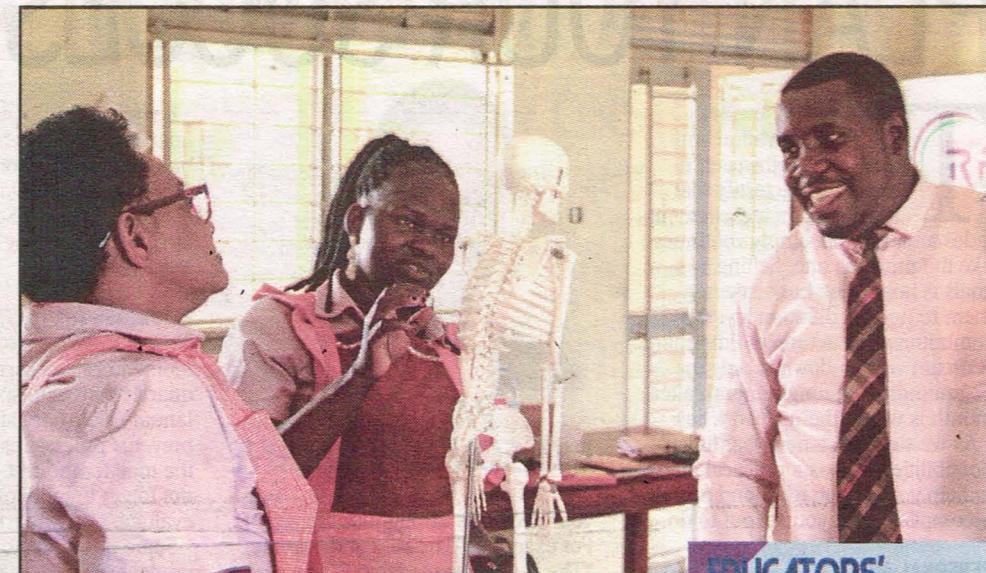
He added that the ministry does not just stop at the distribution; they train headteachers and teachers on how to explain concepts using the kits.

"The reason we train headteachers is to ensure proper management and utilisation of the kits. Once you train the headteacher, who is the accounting officer of the school, you are sure that the learning aid will be put to proper use."

"There are some simple items that wear out and need repair or some kind of replacement. So if we empower the headteacher to take good care of them, the better," Musoke said.

He explained that the aids have become a cost-effective way of improving science teaching in primary schools in hard-to-reach districts.

"We are supposed to reach every child, whether in government-aided or private schools, but we start with the government schools. Ninety-



Teachers listening to an official as he explains how the kits work in Luwero district. They have been distributed to schools in 99 districts across the country

nine of our districts have benefited so far. Our dream is to ensure that all the districts benefit," Musoke said.

Margaret Olore, the head of public relations at River Flow International, said the trainings are aimed at enabling teachers understand how to use these materials.

"They may have the skeleton, heart and kidney, but not know how best to integrate it in their teaching. So, we do the capacity building, we do the training. We teach them how they can use and incorporate this in their already existing curriculum or already existing teaching," she said.

### CLASSROOM EXCITEMENT

James Kimoyimo, a teacher at Mbarara Junior School, said it is the microscope that excited his class.

The children enjoy seeing the tiny living organisms, which will shape their habits in future," he said.

Kimoyimo added that the children know what the heart or kidney looks like.

"A teacher can draw a skull, but not everybody is good at drawing. Somebody can draw a potato instead of a skull."

"When you have a three-dimensional model, a learner will easily grasp a concept," he said.

Christopher Ndyabengera, the Rukiga district inspector of schools, said the delivery of the kits was timely, especially for a hard-to-reach district like his.

"Rukiga greatly appreciates the distribution of science kits by the Ministry of Education and Sports and River Flow International."

"We kindly request if the resources are secured, science kits be given to all schools in Rukiga," he said.

### REAL RESULTS

Kenneth Akugizibwe, the Hoima district inspector of schools, said the pass rate in science has gradually improved from 40% to 70% since they received the kits.

"These children will perform better than they have been performing," he said.

### EDUCATORS' INSIGHTS

Stuart Nabaasa, the technical programme manager at River Flow International, said the poor performance in science has long been linked to limited access to practical teaching materials.

"Many schools, particularly in rural areas, have relied on drawings on walls or simple chalk diagrams."

"Without tangible models, learners struggle to understand complex topics like the human skeleton or internal organs," Nabaasa said, adding that this approach often leads to low engagement and comprehension.

Margaret Mwesiga, the headteacher of Mugongo Primary School in Luwero, noted that science kits have transformed classrooms.

"Before receiving these kits, performance was low," he said.