



## Uganda Humanist Schools Trust

# Isaac Newton High School, Kateera, Masaka

July 2018



View across school site to Lake Victoria and a lesson in progress

### Well-developed site

As you arrive at Isaac Newton High School it is difficult not to be impressed. The school is built on the side of a hill, in a green landscape with many trees. The hillside faces towards Lake Victoria, the largest Lake in Africa but more like an inland sea. Refreshing lake breezes blow from late morning until late afternoon. Students and teachers love the surroundings of the school and comment on the clean air and pleasant local climate. With the constant breeze and being 1,300 metres above sea level, daytime temperatures remain in the low to mid 20s Celsius, which makes it pleasant for living and working.

The school was born out of a voluntary local community effort in 2005, inspired and led by the School's Director, Peter Kisirinya. The first building, comprising two small classrooms and a tiny staffroom, was made from bricks, hand made from the local soil, which is rich in clay and iron. Generous donations from a

Humanist couple in the north-east of England, channelled through the International Humanist and Ethical Union, funded further building work to roof the hall, built by the community, and construct a science lab and additional classrooms. Since 2009, Uganda Humanist Schools Trust has become a significant donor and gradually taken over from IHEU as the principal donor and our contribution to the school development has been substantial – exceeding £300,000 in the period 2009-2018.

The basic infrastructure of the school has grown to include:

- *6 completed classrooms*
- *3 new classrooms under construction*
- *A Hall, which divides into 2 classrooms*
- *A large science lab with prep room and a breeding house for rats*

- A new A-level science lab is being completed
- A small library/book store
- A purpose-built solar-powered computer lab
- 2 hostels – each home to 90 girls
- A hostel housing 90 boys
- Various toilet blocks and wash rooms
- Two cook houses, where food is prepared on efficient wood-burning stoves
- A medical clinic with a treatment room, two small rooms with isolation beds and a full-time nurse
- A canteen/tuck shop, where students can buy small things they need such as stationery, Omo washing powder sachets, fruit and other items
- A small staffroom and two bedrooms where visiting teachers can sleep over
- A carpenters' wood store and work room, where school furniture is made on site



- Adjoining school is farmland, where maize and other crops are grown to supplement school dinners; and where students taking agriculture rear small numbers of livestock such as pigs, cows, chickens and ducks
- A gate-house with a reception where guests sign into the school and a room where agricultural supplies, such as seed and fertilisers, are sold to local farmer members of the Isaac Newton Community Enterprise.
- Water is pumped into a gravity tank from a well down in the valley  $\frac{3}{4}$  of a kilometre away. Rain water, channelled from roofs, is channelled into a 100,000 litre underground concrete tank to provide supplementary supplies and a reserve for use in dry spells
- Hitherto, electricity has been from solar panels on the computer lab and girls' hostel,

supplemented by a diesel generator. However, from August, the school will be connected to mains power, which will transform life in the school and in 5 neighbouring villages.

Isaac Newton School has been growing fast, despite its remote rural location. In the early years, it struggled to attract as few as 60-100 students but, as educational standards have improved, the school is becoming the school of choice in the District. There are now 485 students. And it envisages a final roll of 500-600 students.



Given the imbalance in boarding accommodation, with two girls' hostels and one boys' hostel, girls make up 60% of the students in the school. The picture above is the Malala Yusufzai hostel, named by the girls staying there. As we have pointed out in earlier reports, the provision of boarding has contributed to an improvement in both education and welfare. Boarding on site provides a safe living environment for poor and orphaned girls and boys. It ensures they are well fed, protected from abuse and have opportunities to study and take part in leisure activities in the evenings and at weekends.

While the school site is becoming impressive, some challenges remain. The boys hostel (next page) is bursting at the seams with students, and a new hostel is needed urgently to relieve the pressure. Due to recent and current building work – constructing the underground water tank, erecting poles to take electricity and constructing the new classroom block – the site is littered with builders' rubble and equipment. There are also steep walls of earth that need to be



smoothed or supported to prevent erosion and make them safe for students. The school needs a new multi-purpose hall to house large gatherings for assemblies, dance, music and drama events, to use as a dining hall and for examinations. The old hall can then be divided and refurbished to create a much-needed Library and Information Centre, with internet-enabled computers.

## Learning Resources

A central part of the ethos of the Humanist Schools is to empower students to take charge of their own learning. They are encouraged not to automatically believe what they are told by teachers and other authority figures, but always to check the facts from reliable sources – be it properly edited books or trusted web-based sources (such as the materials of the rigorously edited RACHEL repository, which the school has on its intranet).

The school library is well stocked with text and reference books, as well as novels by international and African writers. All students are issued, when they register in the school, with a plastic photo-id card. This card serves as a library card and is required by invigilators from Uganda National Examination Board when they present themselves for examinations.

In order to stimulate the reading habit, we have been running for the past two years a Reading for Pleasure Project culminating in an annual competition. Before we arrived at the school 6 finalists had been chosen in each

school year. For the final, each child was asked to choose a book to read. The ones chosen included international favourites, such as George Orwell's "1984", classic African novels and books by local Ugandan writers.



The whole school gathered in the Hall to hear each student (above) read confidently a small section from their book, provide an oral summary without referring to notes and answer questions from a panel of teachers and visitors. Each finalist received a small sum of money and the best boy and girl in each year group were presented with an Oxford English Learners' Dictionary. According to the school librarian, the competition has led to a huge increase in the number of students borrowing books from the library and reading for pleasure. The resulting increase in reading should help to improve performance across all subjects.

As well as books, students have access to extensive learning resources on the school intranet. Last year we upgraded the network by bringing in 10 new powerful Z-box computers and, by replacing the solar battery backup and inverter, we greatly improved the reliability of the solar power supply to the computer lab.

As a scientist himself, Peter Kisirinya has always wanted Isaac Newton High School to excel in science. The very creditable results in science demonstrate that the school is making good progress in this direction. It is also becoming known in the area as a science school. This has influenced recruitment in the Sixth Form of the school, which now has a

majority of students studying sciences. The school stands out from others by giving students opportunities to do practical laboratory work in the sciences every weekend.

The school employs a full-time science technician (below), who keeps the well-stocked science equipment prep room in good order and supports teachers carrying out practical work. One of the delights of visiting the school is to see students of different faiths, Christian and Moslem, collaborating together to test hypotheses by conducting controlled scientific experiments.



The resources policy that UHST has been pursuing with the schools, for some years now, is really beginning to pay dividends. This year, Isaac Newton High School showed a large rise in performance in national exams. In the Kalungo district, which has a number of large, well-established schools, Isaac Newton was the 4<sup>th</sup> best performing school at both "O" and "A" level. Furthermore, when measured in terms of the value-added between primary leaving and "O" level grades, the school was the 40<sup>th</sup> best performer out of 3,600 secondary schools in the whole of Uganda.

In order to recognise the contribution that all school staff have made to this improvement we organised a party in a local hotel (below). Two of our Trustees have donated £1,000, which will be shared among all staff as a bonus for the dedication they have shown towards the students. This amounts to 15% of

the entire salary bill, which will make a big difference to their families.



## Agriculture

The number of students studying agriculture at Isaac Newton is growing fast under the tutelage of an inspired young teacher, who is a graduate in agriculture and currently doing postgraduate research in the field. Because the school has ample land, it has been able to create space to demonstrate scientific farming practice. The students grow maize and other food crops on experimental plots, where they try out different regimes of mulching, organic and artificial fertiliser use and pest control. They also rear farm stock such as pigs, cows, poultry and ducks on a small scale to learn about animal husbandry. A new pig project is particularly impressive. They keep two generations of piglets in corrals on a bed of deep litter comprising maize cobs, which provides a medium in which the pigs can root as well as absorbing the urine and providing drainage. Special bacteria are employed to break down the faecal material.



The piglets are fed on a special nutrient-rich diet of maize, herbs and green material from potato leaves and stems. The potatoes are treated with the enzyme auxin, which makes the potato leaves and stems grow more prolifically. The potatoes themselves are used to enrich the diets of children in the school. The pigs are kept for 8 months and then sold to buy more inputs for the school farm.

Farming in the school is conducted as an educational activity. Nevertheless, it provides 10% of all the food consumed by students over the course of a year and hence saves considerable sums of money.

Last year, in an effort to help and strengthen links with the local community, the school established the Isaac Newton Community Enterprise. It aims to raise living standards in the area by encouraging local farmers to undertake cooperative activities. The school gate house is used to store seeds, fertiliser and other farm inputs, which are bought wholesale and supplied to local farmers at cost price.

The local Member of Parliament has just become Minister for Agriculture. In this role, he has been able to include the school's Community Enterprise in a World Bank coffee-processing Project. Coffee is the main local cash crop. Coffee beans grown locally are traditionally sun-dried in their husks by smallholder farmers and sold at very low prices to middlemen. The new project will enable the school to replace the current middlemen. The school will be bought a machine to de-husk the beans and to sell the dried coffee beans at higher prices, having reduced the bulky outer shell. The husks themselves will be given back to farmers to use as valuable mulch on the coffee crop and as litter for chickens. The project should result in a significant rise in local incomes. A great feature of the Isaac Newton Community Enterprise is that it has formally adopted Humanism as the value-system underlying its operations.

## Health and Safety

We met Sarah, the school nurse, who showed us around the clinic (below), which is working well. The building has a treatment room, two twin-bedded rooms where students needing isolation can be treated, a flush toilet and shower room and a room where the nurse sleeps. The clinic is well stocked with medicines and diagnostic dipsticks are used to identify malaria infections.



Our trip took place at the end of the wet season, which is the peak time for malaria. While two cases of malaria were presenting each week, this was relatively low and perhaps surprising because many students choose not to use mosquito nets, which they say reduces the airflow around them at night and creates a stuffy atmosphere (below). Nevertheless, both the nurse and the hostel matrons do try to encourage the students to use mosquito nets, which are proven to reduce malaria transmission greatly.



The school runs its own health insurance scheme. Every child pays a small amount

every term that goes into a health fund, which is drawn upon to pay for medical treatment including stays at local hospitals, when necessary.

Last year there was a sad incident when a student died at home during the December holiday. She choked on a piece of meat, while eating her Christmas dinner. This highlighted the need to introduce First Aid into the school. On this trip I conducted an initial First Aid training session with the Student Humanist Association. I took first aid manuals and the students are going to work through them, with support from the school nurse and the Humanist counsellor. Once they are confident the Humanist students will train others in the school. This meets the Humanist Association's mission of helping others.

During our stay at the school a tragic accident occurred. Two boys were playing football with a ball made locally from dried banana leaves. One kicked the ball into the air and the other boy did a flying header and cracked his skull on the steps of the boys' hostel. A young medical student in his third year of study, who teaches part time at the school, administered first aid and our driver took the unconscious boy to the local hospital. Unable to revive him, the boy was transferred to the major regional hospital for a CT scan, but sadly he died the next day. This was a huge blow to everyone at the school. They informed the boy's family, who were naturally devastated but they accepted it as an unfortunate accident and not the school's fault. The school paid for the hospital fees, the coffin and made a contribution to the food for the wake. Peter and other senior staff attended the funeral.

## Other items

We were pleased to learn that, thanks to a direct cash gift from two of our trustees, a house for the bursar, Winnie, has been completed. The house is a short distance from the school, in the village of Kateera. It has running water and will be connected to electricity when the mains supply is connected. Having the house takes enormous pressure off the bursar, who can now have

her two children living with her and both will be able to attend the school.

My wife, Hilary, met all the scholarship students – 60 in all. During the course of the year only one student dropped out. This was a boy who had a bad report last year. He had apparently been associating with the wrong crowd and his attention was on things other than his studies. A second student, while still enrolled, had been sent home to his parents for counselling, as he was also not applying himself to schoolwork. These cases are very unusual as most students enjoy school and are very grateful for the opportunity to be able to study.

Isaac Newton High School is a very well run school, where the teachers know students well and senior staff work together to run a tight ship. Each time we visit the school, we ask scholarship students to complete an evaluation form and they always praise their teachers, who the students believe teach well, care about their progress and treat them as if they were second parents. The Director operates a hardship fund that is used to help those needy children who cannot afford stationery, uniforms, school food, examination fees or school field trips.

We are very impressed by the care the school provides. They really do subscribe to the principle of "every child matters!". We are also delighted that the two Humanist Counsellors at the school are being enrolled in the Humanist Society of Scotland scheme to enable them to train online as Humanist Celebrants.

The school needs up to £100,000 to complete the core infrastructure to cater for 500-600 students. If you feel you or your group would like to help us with this, or to sponsor a student then please contact [stevehurd@uhst.org](mailto:stevehurd@uhst.org) (01782 750338). Donation forms can be found at:

<http://www.ugandahumanistschoolstrust.org/donate/>

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