

NURTURING TOMORROW'S KOI KEEPERS

**AUTHOR:
CHRIS
THOMAS**



Chris Thomas has been keeping koi for 15 years. He set up Kitsu Koi with his father Graham in 2005, and has continued to expand the business each year. Chris travels to Japan without the aid of a guide, and selects high quality koi at least twice each year.

A fantastic project is taking shape at a school in Rotherham – the Swinton Community School Aquaponics Unit. Chris Thomas explains its aims and how it will benefit future koi keepers...



In January 2011 I was offered an opportunity to assist in a fantastic project located at Swinton Community School in Rotherham.

“The aim is to breed and raise ornamental koi for sale, while educating students.”

The concept is based around a self sustaining aquaculture training centre, to be used initially by students from Swinton Community School. It will open up to all students in the local authority in the near future. The aim is to breed and raise ornamental koi for sale, while educating students.

How it all began

Planning and design started in 2010, including feasibility studies and business planning. Construction started in January

2011 by ABLE Partnership Ltd, a not for profit business that allows young people and long term unemployed people gain valuable workplace skills in joinery and construction, amongst other projects aimed at enriching people's lives. The aquaculture project is an 'adaptation' of another project put forward by ABLE Partnership for Rotherham in 2008.

All schools in Rotherham were offered the chance of this funding, but Head Teacher David Pridding stepped up to take on the project after Andy Watson agreed to manage the day to day work involved. Business Manager Andrea Kitchen and Senior Executive Rachel Denton are responsible for the business planning and finance of the scheme, and put forward a



The double decker being lifted into position.

good case for the viability of Swinton Community School running such a centre.

The teaching staff comprises of David Twigg and Ron Sheen, who will deliver lessons to children already studying at Swinton Community School as well as outside, privately funded students.

The facilities

Two quadrangles have been allocated to the Aquaponics Unit. One area is being redeveloped to house a pond for displaying koi, and a raised stage area is to be used by the English department for drama and the music department for small concerts. The area can be used for recreation by the students at break times, and is currently being landscaped to provide a relaxing ambience. There are to be raised decking areas, maple trees and wooden benches for students to use when not in lessons.

The main work area contains a single

decker bus which has been fitted out as an IT suite, which is available for use by all departments in the school. The computers are linked to the main school network by fibre optics to enable teachers to effectively use existing resources. The inside of the

"I have to say it makes a very quirky classroom!"

bus has already started to be decorated with koi posters. I have to say it makes a very quirky classroom!

A second bus was lifted by crane into the larger of the two quadrangles. The double decker bus has been equipped with two hatching tanks on the lower deck, while on the upper deck there is a large koi holding tank with a long water course for growing watercress from the nitrates created by the filter.

The water from the koi vat is pumped through a filter to remove ammonia and



A quirky classroom indeed!



Creating a relaxing environment.

nitrite, and the return flows through the watercress and back in the koi vat. This watercress is to be used by the school kitchen as part of the sustainability and the school's healthy eating strategy. The upper deck receives large quantities of natural light, enabling the watercress to grow rapidly.

The lower deck tanks will hopefully be used next spring for the hatching of koi fry bred at the facility. The tanks were constructed of ply and fibreglass by KC Fibreglass – certainly a different work environment for Karl.

Outside the two buses are five circular vats holding 1,500 gallons each. These will be used to grow on koi to a saleable size. The koi are to be sold to garden centre type outlets, and will help keep the centre running without having a cost impact.

The filtration had to be compact, easy to use and understand, and perform due to the nature of the project. Evolution Aqua Eazy Pods provide the mechanical and biological filtration, with Evolution Aqua evoUVs to keep the water clear. The majority of cleaning and maintaining of the systems will be carried out by children aged 11 to 16, so simplicity was essential.

“The unit will be used primarily to teach BTEC Level 2 Fish Husbandry...”

All the ponds are undercover to provide a safe, dry working area, and reduce the risk of predatory birds feasting on small koi through the summer.

An information board has been placed in the quadrangle for the pupils to record water parameters, and detail responsibilities for feeding and cleaning of the systems. The board includes space to record



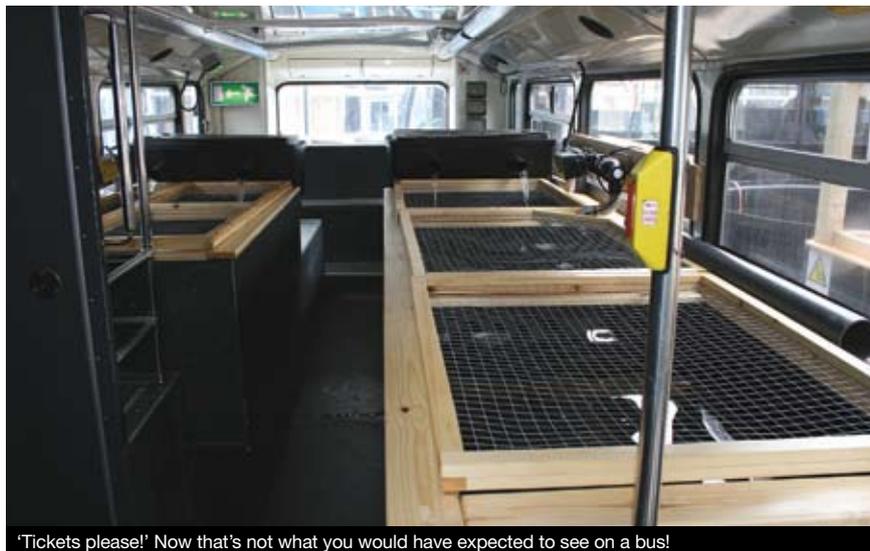
Some of the Evolution Aqua Eazy Pods.

schedules for filter cleaning and taking mucus samples, which the students will be trained to perform.

How it will benefit the children

The unit will be used primarily to teach BTEC Level 2 Fish Husbandry to students of all ages at Swinton Community School and other schools in the borough that show an interest. The course enables students to achieve an understanding in fish care suitable for working in local ornamental fish shops, or furthering their education on high courses related to fishery management or fish farming. I have made myself available to assist with educational workshops where my experience would be worthwhile.

The unit involves other departments in school to work alongside the project. Business studies students are asked to make business plans, look at marketing ideas and make records of the accounts.



'Tickets please!' Now that's not what you would have expected to see on a bus!

The Science, Design & Technology, Food Technology and Art departments will use or contribute to the project in various ways.

The children are already showing a keen interest in the project. This is used to the advantage of the Behavioural Support team to engage pupils who otherwise have a negative view of school. Primary feeder schools are invited to attend the 'fish farm' as part of efforts to introduce the step up into secondary school in an interesting manner, helping to reduce any fear a child may have of moving schools.

"Approximately 1,500 koi will be delivered in stages as the filters mature."

As for the future as a resource, it is hoped that the facility can be used by primary, secondary and Further Education / Higher Education colleges in the local area, with lessons delivered by teachers from Swinton Community School or from outside teachers, lecturers or industry experts. Already I have gained support from my industry contacts who have offered to visit the centre and make presentations to the students on varied topics on koi keeping.

In the coming weeks, the centre will receive its first shipment of koi from the ABLE Partnership. Approximately 1,500 koi will be delivered in stages as the filters mature. Copious amounts of filter start are on hand to help the process. These are to be cared for by the pupils, unit manager and teaching staff until they are ready for sale.

Selections will take place to identify potential brood stock and these will be raised separately to be grown to larger sizes, as well as grading koi for resale. I will be on hand to teach the new intake of

student helpers how to handle and move koi, including netting and bagging koi prior to leaving the premises. At the time of writing, CEFAS are due to inspect the facility with a view to issuing authorisation for koi raised on the premises to be sold to aquatic outlets.

The centre will be unveiled to the school governors and local council officials in September, as well as on a website for the facility. The website serves as a first point of contact with potential customers, whether they are aquatic centres seeking stock, or potential external students looking to enhance their CV with an aquaculture course. Companies involved in the project will be given space on the website to show appreciation for their support.

This is a fantastic project and one that we will continue to follow, so don't miss future issues when we will report on the progress made at Swinton Community School.

錦鯉の熱情

With thanks: *The Swinton Community School would like to thank the following companies:*

- ABLE Partnership Ltd for their plans, construction work and initial stock of koi.
- Wright Bros Partnership Ltd for the plumbing work carried out on site.
- Cliptech Ltd who installed the electrical supply to the buses and pond systems.
- KC Fibreglass for lining of the stock ponds in the bus and outdoor pond in the recreation area.
- Evolution Aqua for sponsoring the project with Premier koi food.
- Kitsu Koi for supplying equipment and continued support of the project.