

Wellacre Academy



At a glance

Location

Wellacre Academy
Manchester, England

The challenge

To create an Eco Centre with three biomes to support learning about plants and the importance of a sustainable environment.

The solution

SOLARDOME® Sanctuary and two SOLARDOME® Retreats

Wellacre Academy's innovative Ecology Centre, features three glasshouses, and when opened in 2011 immediately won the prestigious International Green Apple award for the Built Environment.

The ecology centre is home to a SOLARDOME® Sanctuary (8m diameter) and two SOLARDOME® Retreats (6m diameter) and was purpose built for teaching the Land-Based and Environment Diploma which began in September 2011. As well as the three glasshouses, the centre features an eco-science laboratory, a reed bed filtration system, deep fish ponds, an amphibian pond, planting beds, a dipping pond, beehives, and a chicken coop. The whole centre is completely sustainable and environmentally friendly from the timber eco-lab, to the dry-waste wall, and the grey water irrigation system.

Each dome hosts a different growing environment – desert, tropical/Mediterranean and a traditional British greenhouse. The 'British' dome is a working station used to nurture seedlings and plants before transferring them to the external raised beds. The biomes support learning about plant nutrition, growth and breeding and help to teach the importance of a sustainable environment in our society.

Another feature of this outstanding eco centre is the environmental monitoring system which has been sponsored by Siemens. Each dome is monitored for a variety of conditions and controlled from a central computer system in the eco centre's laboratory. Everything from temperature and humidity to oxygen and CO₂ and the opening and closing of the windows can be controlled by a touch of a button; whether from indoors in the classroom or at home via a website.

There is also an irrigation system, which regulates the water flow to the plants in each dome. This technology helps to create distinctive environments in each dome as well as developing a greater understanding about environmental monitoring for the students.

Beyond the science curriculum

The eco centre is not just used by the Science and Geography classes, it is also regularly used by Business Studies students. The pupils have been selling produce such as honey, fruit and vegetables to local businesses. Stacey Partridge, Business and Enterprise Leader said: "This is a new way of learning; cooperative and personalised, not straight academic learning. It has really helped bring Business Studies alive for the students."

"The domes are a fantastic facility and create an environment that helps students develop life skills outside of the classroom environment."



The centre has also been a great help to pupils with special needs, encouraging them to develop responsibility, confidence and social and team building skills by getting involved with the growing and selling of produce. The Electronics and Maths departments have also used the domes in their lessons; by building model geodesic domes, creating equations for growing the best sunflowers and studying the environmental monitoring technology.

Wellacre regularly holds Eco Days where it invites the whole school and local community to get involved in practical skills such as willow fence making and dry-waste wall building. They also hold 'Busy Bee' sessions where they invite local primary schools to learn about climate change, wildlife, growing and even geodesic domes.

Wellacre's eco centre is used to deliver a host of different courses and projects, from the Land-Based and Environment Diploma it was designed for, to the Business Studies 'From the ground to the table' farmers market. It doesn't just stop at the pupils and teachers; the school works with a number of different partners including local primary schools, European secondary schools, community groups, allotment owners, ecological groups and local businesses. It is a fantastic example of what can be achieved by an educational facility and its wider community.

More information

Discover how you can make the most of the space at your school by calling us for a brochure today.

