Mossbrook School – Classroom of the Future

Bochum Parkway, Norton, Sheffield,
South Yorkshire S8 8JR
Local Authority: Sheffield City Council
Architect: Sarah Wigglesworth Architects
Date of completion: 2003
Type: Primary/Special Needs
Headteacher: Maggie Brough

The Classroom of the Future at Mossbrook, situated in Sheffield's green belt, is one of four school projects in the Sheffield area examining the role of technology in the 21st-century classroom. The school, with approximately 100 pupils, teaches children with autism spectrum disorder (ASD) and other severe and complex needs, but the new classroom is intended to be a resource for all schools in the local area.

The new building has a well-defined function: it is a space designed for children to learn about the natural environment through direct interaction. Following extensive studies and consultation with staff and pupils, it was decided to locate the building on the edge of the playground, close to a pond and adjoining the school's new sensory garden. The new structure forms a gateway into the nature conservation area and the teaching space looks directly over this, encouraging children to experience directly the natural habitats of plants and animals outside.

Glass 'vision panels' in the walls and floors allow pupils to observe physical and natural phenomena at close hand, while they can also use a viewing platform looking over the water and trees. The sensory garden turns up vertically to create a 'living wall' that provides a protective, insulating face to the north edge of the building. With a structure formed by a wooden framework, the building is clad in three layers – corrugated steel, oak and polycarbonate sheeting – that appear to be 'peeled' away, revealing different views of the interior while at the same time framing views of the outside. The classroom is lit via high-level glazing to the north but it also has three child-height south-facing windows overlooking a meadow.

The flexibility of the space is, says Headteacher Maggie Brough, "one of the many successful elements of the design. The large main room has three smaller adjoining storage/work areas that can be put to a variety of uses for small groups or larger classes of all ages and needs, from those with the most severe learning difficulties to those who are gifted and talented." She suggests that, in addition, the calm quality of the environment is particularly suitable for pupils with ASD, many of whom have acutely sensitive hearing, as it enables them to concentrate on their learning.

The project was awarded a grant under the Royal Society of Arts' 'Art for Architecture' programme, which enabled the architects to collaborate with artist Susan Collins in developing a project that interprets the use of technology in science teaching. Webcams in the conservation area, some triggered by body heat, record animal movement and direct images into the classroom through plasma screens attached to the building. One of the resource rooms was also transformed into a camera obscura, bringing real-time images of the world outside directly into the classroom.

"Mossbrook's Classroom of the Future is a light, airy building that always surprises, stimulates and delights. It encourages learners of all ages to find out more and to experience the joys of exploration."
Irving Smith, Chair of Governors

"I like the balcony looking at the lake."
Pupil

"The building has created an opportunity for pupils to safely study a unique learning environment beyond the school."
Maggie Brough, Headteacher