

Tucked away in the world heritage precinct of the Royal Exhibition Building and Carlton Gardens is a new treasure that will offer opportunities to thousands of girls for years to come.

Directly across Nicholson Street, Victoria's oldest continuously operating girls' secondary school – the Academy of Mary Immaculate, established in 1857 by the Sisters of Mercy – has just opened a contemporary science centre designed not only to optimise learning but also to raise the profile of science education for girls.

When the college briefed its architects, leading educational designers ClarkeHopkinsClarke, to replace its outdated science laboratories, it soon became apparent a new building would be required, rather than refurbishment, and that its creation could support students in their discovery of the possibilities in science.

The McAllen Science Centre, named for past principal Sister Mary McAllen, opened for the start of the fourth term. The centre is a four-storey building facing Palmer Street in Fitzroy and has three levels, each with a laboratory, preparation area, offices and storage above a ground-level entrance, and parking for the convent's retired nuns.

Working within the world heritage precinct's planning constraints as well as respecting the school's significant collection of 19th-century buildings, CHC has created a jewel of a building that complements its surroundings and provides modern, light-infused learning spaces.

CHC partner Ezio Costa says he and his team worked closely with Heritage Victoria to achieve a design that complemented rather than mimicked the adjacent heritage-listed buildings, which include a three-storey bluestone classroom wing opened in 1881 and the school's 1889 sandstone chapel.

The architects repeated the rhythm of the bluestone building's buttresses facing Palmer Street in five columns of the new building's street façade and used a metal cladding, giving the appearance of polished stone. Bricks were combined into projecting panels on the building's eastern and western faces, giving the effect of separate blocks, reflecting the heritage bluestone blocks. While colours used in the street façade are muted, a series of projecting sunshade window hoods on the eastern and western façades have bright gold and mandarin red internal facings.

At one end of the building, a stairway and lift provide access to all levels as well as the adjoining gymnasium. The stairway is lit by three stained-glass windows telling the story of creation from three perspectives – the indigenous, the biblical and the scientific. The windows are linked by the rainbow serpent from indigenous tradition, highlighting the dreamtime legend. The artwork was designed and made by Academy teacher Kevin Foley and fellow artist David Watt and covers 30 square metres featuring 3500 pieces of glass.

The three labs dedicated to biology, chemistry and physics have highlight colours accented in floor coverings and walls. Full-width windows to the south fill the spaces with natural light and provide views. Slit windows to the east and west open for cross ventilation.

Walls at the rear of two of the laboratories open to break-out spaces for collaborative work. Floors, walls and ceilings have acoustic finishes, and sustainability features include movement-sensor LED lighting, efficient heating and cooling, rainwater harvesting for toilet flushing, solar-control glass, natural ventilation and highly rated insulation.

Academy science head Toni Mercuri, a former student who once studied in the old school laboratories, says the new McAllen Science Centre, combined with a new approach to science learning, opens up a massive range of possibilities for students.

"Along with the opening of the new building, we are introducing the active learning Science by Doing program from the Australian Academy of Science. The way our new rooms are set up will foster hands-on learning and discovery, and science by nature is inquiry-based," Mercuri says.



SCIENCE IS THE STAR

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A MASSIVE RANGE OF POSSIBILITIES



Main: Students in the school's new chemistry lab.

Left: The McAllen Science Centre façade from Palmer Street and the stained-glass window, above the stairway, that tells the story of creation. (SUPPLIED)

"The new labs are spacious, well-equipped and with so much natural light and interesting aspects."

Mercuri wants to put science at the top of subject lists for students' senior years and help girls discover that physics, chemistry and maths are not too hard.

"Science literacy for girls gives them a great advantage in life, even if they don't end up pursuing a science-oriented career."

From next year, year 7 to 10 students will have laptops with online textbooks linked to interactive activities supported by resources in the laboratories. Mercuri says there's far more opportunity for hands-on learning

in the new labs. "I want to change the idea that when you come into a class you are studying a chapter in a textbook. We are not. We are learning about an aspect of science – cells, for instance – and we will use a wide range of resources to support our learning in the labs and online."

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