



up close learning...



wow!

Image: Moth face, Hitachi TM4000Plus 15kV 9.7mm x30



In partnership with Curtin University, AuScope, NewSpec, and Hitachi High Technologies, a new initiative has been launched to inspire and enrich learning experiences for students across Western Australia.

Career Awareness & STEM Learning

Nanotechnology is set to influence every aspect of modern life, yet many students, teachers, and adults know little about its role. It is already crucial in areas like water purification, defense, mining, clean energy, healthcare (drug treatments and disease detection), and the development of smaller, smarter electronics.



Discovery learning opportunities include:

- Forensic Investigation
- Palaeo
- Geology
- Biology
- Chemistry
- Agriculture
- Materials Science
- Music, Art, Design

We have visited over **355 schools** across Australia

reaching over **65,300 students**



Student Engagement

The Hitachi TM4000 is a desktop-sized scanning electron microscope (SEM), giving students hands-on access to research-grade technology. Its portability and ease of use make it ideal for extended placement at schools.

The "Inspire STEM Education" initiative fosters real-world connections through experiential learning, creating strong and meaningful educational outcomes. When integrated into high-quality, well-structured programs, technology can ignite curiosity, enhance learning, and encourage deeper exploration of the world around us.

Powered by Hitachi High-Tech America, delivered to schools in partnership with





Inspiring our Future

The TM4000 shows learners of all ages and abilities that there's more to our world than meets the eye. By examining everyday objects like bugs, leaves, or flowers in greater detail, curiosity is sparked and nurtured.

Placing these objects in the SEM allows students to explore a hidden world, encouraging deeper learning and exploration. This hands-on approach opens up new perspectives, enriching the learning experience through the power of technology.

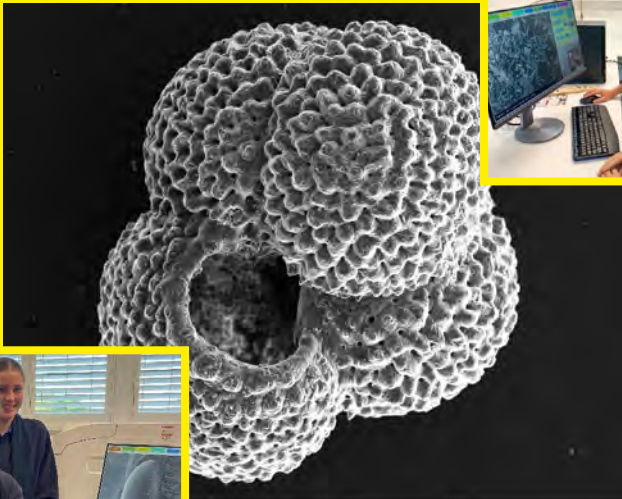


Image: microfossil from a tropical beach sand
10kV 5.8mm x270

Vital Connections

Familiarity with nanotechnology is crucial given its wide range of real-world applications, from biological research and industrial manufacturing to medicine, aerospace, geology, and more. Whether the topic is archaeology, forensics, materials science, or oceanography, nanotechnology is relevant and can be used to enhance learning and deepen students' understanding of the world.

Bookings

Contact our expert team using the details provided below or email outreach@newspec.com.au to choose an available week for your booking.

Once a booking period has been negotiated, confirmation of the booking details will be e-mailed directly including password set up instructions to access the teaching support resources on our website.

The SEM learning lab will be installed at your site on the Friday afternoon preceding your confirmed hire period. Collection of the instrument will occur at 1pm on the final Friday of your hire period.

Investment and Support

Microscope for the week: \$750

SEM Teacher Training: \$150 (per staff member)

Fee waiver: Schools or organizations that require financial assistance may apply for a fee waiver.

Requirements from your site:

- One designated, secure set-up space, where the SEM will remain for the full hire period. The machine cannot be moved once set-up and must be locked away securely out of school hours
- Wheelchair access to the set up space
- An ambient room temperature of 15–30°C
- Humidity level of less than 70%, no condensation
- Single phase power supply AC100–240V
- Minimum recommendation 2 trained staff per site. A trained teacher can run the instrument autonomously on each day of the hire.

Training Details

Nominated staff will receive comprehensive training on the operation and capabilities of the Hitachi TM4000 Desktop SEM.

Participants will gain the skills to help students collect and image their own samples, with best practice examples for classroom use. We also provide support and recommendations to create a site-specific plan tailored to your learning goals.

Training typically takes place on the final Friday of the school holiday period before your booking to ensure staff availability.

for enquiries and bookings visit
inspirestemeducation.com.au

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