

SURF SCIENCE SPECIALIST PROGRAM

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A science and outdoor education specialist program, endorsed by the Education Department of Western Australia, for students in year 7 to 9 at JTC who have a keen interest in studying the marine environment.



JOHN TONKIN
COLLEGE

EXCELLENCE | RESPECT | COMMITMENT



SELECTION PROCESS

An interview process is used in determining student suitability for the program.

Initial application forms can be collected from John Tonkin College – Tindale Campus.

- ✓ Achievement with at least C grade achievement in all Subjects. Higher grades will be best suited for the program (confirmed by final report.)
- ✓ NAPLAN results reflecting achievement at standard. Higher NAPLAN results will be best suited for the program.
- ✓ Strong records of positive and appropriate behaviour.
- ✓ Regular attendance.
- ✓ Leadership qualities such as Student Councillor, Faction Captain and Head Boy/Girl.
- ✓ References from staff.
- ✓ Strong interest and involvement in water based, environmental and/or local community activities
- ✓ Satisfactory swimming ability.

SURF SCIENCE

Students in the Surf Science program have a keen interest in outdoor recreation, environmental conservation and contribution to the community.

This Department of Education approved Surf Science Specialist Program facilitates the studies of marine science and outdoor education for students in year 7 to 9 at John Tonkin College. The program accommodates an academically challenging pathway, whilst also nurturing students who may already have a pro-active interest in the outdoors and marine environment. Students studying Surf Science may be curious in pursuing an environmental-science career pathway.

Students within the Surf Science Specialist Program are privileged to unique learning opportunities and facilities throughout our college and within our wider community.

Our students have access to well-equipped science learning areas and aquaculture laboratories, IT ready classrooms and also have an assigned school bus which supports transport for ongoing marine and coastal field work.

Additionally, John Tonkin College has a purpose-built Marine Centre in Dawesville, which provides our students with exclusive access to an off-site classroom and learning area.

Aquaculture Centre - Tindale Campus

The new JTC Aquaculture Centre building at Tindale Campus was completed in 2024.

John Tonkin College Surf Science Specialist Program students are offered a variety of skilled teaching within each of the curriculum disciplines and will enjoy the support of many professional and community based partnerships and partner organisations, which include;

- DBCA
- City of Mandurah
- Coastal Waste Warriors
- DPIRD Fisheries WA
- Duke of Edinburgh Award WA
- Estuary Guardians Mandurah
- Healthy Estuaries WA
- Keep Australia Beautiful
- Mandurah Cruises
- Mandurah Dolphin Research Project
- Mandurah Heritage and Environment Centre
- Men of the Trees
- Murdoch University - Harry Butler Research Institute
- Oz Fish West
- Peel Harvey Catchment Council
- Royal Life Saving Society WA
- TAFE WA Fremantle Campus
- Tangaroa Blue Foundation
- UN World Oceans Day
- UWA School for Biological Sciences



YEAR 7



SCIENCE

- Water analysis skills and fish tank maintenance
- Observations and monitoring of local waterways
- Water pollution from households and the impact on the Estuary
- Introduced species and impacts on biodiversity (or local wildlife)
- Physics of watersports

COMMUNITY INITIATIVES

- Tangaroa Blue Marine Debris Initiative
- Estuary Guardians
- Clean-Up Australia
- Lucas Legacy Annual Cleanup
- Coastal Waste Warriors
- City of Mandurah Youth Programs
- DBCA Reel It In Program

QUALIFICATIONS

- First Aid Certificate



PHYSICAL EDUCATION

Swimming, Body Boarding, Stand Up Paddle Boarding, Kayaking, Snorkelling,

CAMPS

- JTC Marine Centre
- Ern Halliday Camp (Hillarys)
- Fisheries Hillarys



MUSSEL PROJECT



Students from the specialist Surf Science Program partnered with 130 local volunteers to become 'Shellfish Gardeners' on a mussel farming initiative supported by the Alcoa Foundation, The Nature Conservancy, Peel-Harvey Catchment Council and Greening Australia.

Supported by Richard Campbell and Project Coordinator Theo Kearing, JTC students helped to grow 50,000 mussels or oysters in specially designed 'gardens' and monitor and maintain the shellfish from juveniles to adults. The adult shellfish will be used to help turn a new reef base into living shellfish reefs.

Once established, the shellfish reefs will enhance local fish stocks, help improve water quality and boost the local economy by attracting fishing and eco-tourism.

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ACTIVE RESEARCH

Our Surf Science Specialist Program takes learning beyond the classroom and into the ocean.

Surf Science Specialist students are actively involved in hands-on marine conservation projects that make a meaningful impact on Western Australia's coastal environments. Through strong partnerships with leading organisations, they apply scientific knowledge in real-world contexts while developing confidence, curiosity, and a strong sense of environmental responsibility. Check out what our students have been up to;

SEEDS FOR SNAPPER - COCKBURN SOUND



Students contribute to Australia's largest seagrass restoration project by collecting floating seagrass fruit, preparing the seeds, and helping to disperse them across the sea floor. These meadows are vital to marine ecosystems, providing habitat and protecting our coastlines from erosion.

SEAGRASS MONITORING - PEEL HARVEY ESTUARY



At monitoring sites in Dawesville and Novara, students assess the health and distribution of local seagrass meadows. Their work supports the Healthy Estuaries WA program and contributes valuable data to the Department of Water and Environmental Regulation.

DOLPHIN EXPERIENCE - MONKEY MIA



Our students support the Department of Biodiversity, Conservation and Attractions with the daily dolphin experience at Monkey Mia. They help prepare food, feed the dolphins, talk with visitors, and learn about Shark Bay's marine life and conservation from expert scientists.

SHARK BAY RESTORATION - EMERGING PROJECT



Future cohorts of Surf Science and Marine Science students will participate in seagrass restoration efforts in Shark Bay, contributing to long-term environmental recovery and the protection of this World Heritage-listed area.

These programs provide our students with the opportunity to engage in real scientific work, gain valuable environmental and research skills, and contribute meaningfully to the preservation of our marine environments.

Scan the QR code to dive deeper into these exciting projects!



REEL-IT-IN BINS

The Parks and Wildlife Service Reel It In, fishing line bin project was introduced to help reduce the impact of discarded fishing line and tackle on dolphins, water birds and other animals.

The introduction of these bins to Mandurah was a community initiative by our Surf Science Specialist Program students.

These bins provide both awareness and a convenient option for local fishing enthusiasts and active community members to place stray fishing line in one of our secure bins, protecting our wildlife from the dangers of becoming entangled.

Our Surf Science students routinely check these bins along the Dawesville Cut and empty them as part of our ongoing support for the Reel it In Project.

OUR PARTNERS

Estuary Guardians Mandurah - City of Mandurah - Keep Australia Beautiful WA - River Guardians



YEAR 8



SCIENCE

- Introduction Aquaculture
- Observation and monitoring of local waterways
- Human impact and influence on the estuary
- Land clearing and the impact of biodiversity (local wildlife)
- Coastal erosion and rock formation
- Impacts of fracking on coastal ecosystems
- Physics of watersports

COMMUNITY INITIATIVES

- Tangaroa Blue Marine Debris Initiative
- Estuary Guardians
- Clean-Up Australia
- Bunbury Dolphin Discovery
- Coastal Waste Warriors

QUALIFICATIONS

- Royal Life Saving Society of WA Bronze Star Award



PHYSICAL EDUCATION

Aquatic Rescue, Swimming, Surfing, Advanced Stand Up Paddle Boarding, Cycling, Sailing, Snorkelling, Camp Planning

CAMPS

- Rottnest Island - Ecosystems
- Bunbury / Busselton - Dolphin Research

JTC MARINE CENTRE



Located on the south side of the Dawesville Cut, our Marine Centre is a one-of-a-kind for public schools in Western Australia.

1 THISBE DRIVE DAWESVILLE WA 6211 Phone: (08) 9582 2572

YEAR 9



SCIENCE

- Aquaculture and aquaponics
- Observation and monitoring of local waterways
- Human impact and influence on the estuary
- Bushfires and the impacts on biodiversity (local wildlife)
- Ocean currents and coastal erosion
- Understanding noise pollution and its impacts on marine life
- Physics of watersports

COMMUNITY INITIATIVES

- Community initiatives carry on from Y7 and 8
- Seagrass Monitoring Project
- Monkey Mia Dolphin Research Project
- Seeds for Snapper Program

QUALIFICATIONS

- Royal Life Saving Society of WA Bronze Medallion
- Recreational Skippers Ticket
- Duke of Edinburgh Award - Bronze



PHYSICAL EDUCATION

Power Boating, Surfing, Abseiling, Snorkeling, Advanced Stand Up Paddle Board, Kayaking, Canoeing

CAMPS

- Margaret River
- Shark Bay/ Denmark - Volunteering with Department of Biodiversity, Conservation and Attractions
- Exmouth (biennial - optional)



BLACK BREAM PROJECT



Did you know that Black Bream complete their whole life cycle in the estuary in which they are born? Their home is their home forever, therefore it is important that we make sure they have a sustainable habitat in the Peel Harvey Estuary.

The Black Bream Project enhanced the stocks of black bream in our local waterways. The project aimed to protect the fish from threats in their early life stages through an aquaculture program which was undertaken by Murdoch University and John Tonkin College with support from Peel-Harvey Catchment Council. Over the school term, our Surf Science Specialist Program students cared for the bream to ensure they survived their critical life stages which involved feeding them and making sure the water quality was suitable by conducting routine water quality checks.

Our students were able to release approximately 500 baby bream into the Murray River which was a great success.

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Unfortunately over time, black bream have been exposed to a number of environmental threats which has caused their stocks to decline. Therefore, it is hoped this project has given a boost to the existing population so we can enjoy these species for years to come.

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Peel Harvey
Catchment Council





Fostering an optimistic future by empowering our college community
to succeed.

Tindale Campus

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