



Join the Department of Defence during National Science Week as we speak to scientists from Defence and industries working at the forefront of science and technology and transforming the future of our oceans.

Does your class want to know more about how oceans fit into global systems or the water cycle? Do they wonder about how we can leave the seas a better place than we find them? Or ponder on how we can benefit economically from the seas, whilst not taking advantage of their riches? Do they wonder how cutting-edge technology can benefit all lifeforms both in and out of the water?

Sign up now to register your interest and you will be sent details on how to access these three exciting online sessions once they are available.

Designed for Years 6-12.

**Don't delay! Registrations close 16 August**

[Register for Deep Blue Oceans](#)

## Deep Blue Oceans sessions

### Glowing Blue

**Clare Grandison, Environmental Scientist** – Bioluminescence is one of nature's great wonders, as well as one of its greatest mysteries. The term luminescence refers to the emission of light with no heat. Bioluminescence as the name suggests is the production and emission of light by living organisms and it has fascinated scientists, artists and philosophers for thousands of years. Clare will talk about her discipline of Environmental Signatures and the extensive research program working to understand bioluminescence, its occurrence, possible implications in terms of threat and detectability and how humans may be able to utilise these features of the Deep Blue Ocean.

### National Curriculum Links

- Science Understanding: Physical sciences, Biological sciences, Chemical sciences, Earth and space sciences
- Science as a Human Endeavour

## **Sensing Blue**

**Dr Brad Evans and Robert Dane** – The future is submersible with Australia building its own submarines now, so what is the future for all things Deep Blue? Join Brad and Robert as they talk about how innovative sensors are updating our knowledge of the oceans like never before, and how this technology is utilised on submersible vehicles.

### **National Curriculum Links**

- Science Understanding: Physical sciences
- Science as a Human Endeavour
- Senior Secondary Curriculum – Physics, Units 2 & 4

## **Atmospheric Blue**

**LCDR Helen Imlay-Gillespie** – It's common knowledge that the moon's gravitational pull affects the tides, but how much do we know about how the weather and climate affect our oceans too? Helen will talk about her work in meteorology and climatology and why these are vital fields for our interactions with our Deep Blue Oceans.

### **National Curriculum Links**

- Science Understanding: Earth and space sciences
- Science as a Human Endeavour
- Senior Secondary Curriculum – Earth and Environmental Sciences, Units 1&4