This publication is in celebration of Australia's new Antarctic icebreaker - RSV Nuyina.

RSV Nuyina is like a floating world, or three worlds within one ship. It's a world of research, a world of supplies and has the strength and capability to enter the world of ice.

Within these pages you will find information on the ship - and there are some great links below that will give you fabulous updates, information and images.

There is also a big jigsaw of the ship for you to colour in, cut out and keep - and some added pieces so you can create your own voyage of RSV Nuyina.

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Play the voyages

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Chairman J. S. Taylor, M.D., University of Tasmania, Department of Environment, Sport and Natural Resources

Project Team

dr courtslaban 2019

AUSTRALIAN ANTARCTIC PROGRAM

AUSTRALIAN ANTARCTIC PROGRAM
Voyages of RSV Nuyina

The RSV Nuyina is a research vessel that sails to Antarctica to study the wildlife and environmental conditions. The voyage requires careful planning and preparation to ensure the safety and comfort of the crew. Each voyage presents unique challenges and opportunities for scientific exploration.

Putting the Voyages Together

To create a voyage puzzle, you will need:

- A blank page
- A voyage log
- A voyage map
- A voyage guide

You will need to:

1. Create a voyage puzzle for each voyage
2. Assemble the puzzle pieces
3. Solve the puzzle

Changing the Voyage

You can change the voyage by:

- Adding new puzzle pieces
- Removing existing puzzle pieces
- Rearranging the pieces

Voyage Rules

All voyages require careful planning and execution. Each voyage is unique and presents different challenges. You must:

- Plan the voyage
- Execute the voyage
- Evaluate the outcome

Playing the Voyages

The voyage is a complex puzzle that requires critical thinking and problem-solving skills. Each voyage presents a unique challenge that must be solved to progress.

If you choose to solve these puzzles, you could make sure that every player has one to find where it will fit.
RSV Nuyina

AUSTRALIA'S NEW ANTARCTIC ICEBREAKER

Australia's new Antarctic icebreaker, RSV Nuyina, will make its maiden voyage to Antarctica from its home port of Hobart in 2020.

Nuyina is a 'Yugambeh' Aboriginal word meaning 'southern lights'. It is pronounced 'nuy-ee-nah'.

The southern lights, also known as aurora australis, is an atmospheric phenomenon when storms over Antarctica and reaches southwards to light up Australia - and particularly Tamworth - skies. The ship was named by Australian schoolchildren in a competition in 2017. The Nuyina is a mostly new ship, in one - an Icebreaker, a floating scientific research platform, and a supply ship. The Nuyina is also a ship of the future. It has been designed for the science we see today and for the science of tomorrow - including science that has not yet been invented.

The Nuyina is built from 11,000 tonnes of steel and painted bright 'international orange'.

In icebreaking mode the ship can break 1.5 metre-thick ice at three speeds. The ship's bow is a curve that allows it to ride up on the ice. Then, when the weight of the ship and the bow push down on the ice, breaking it like you would a potato with a rolling pin.

When the ship is breaking ice it makes a lot of noise, however it needs to be very quiet for some types of scientific work that use sound to map the sea floor or to look for life in the water below.

To create a silent ship, engineers had to design a special propulsion system that changes the way a turning wheel form and move around the hull. Bubbles make a lot of noise when they split.

The ship also has quiet electric motors for silent operations, while the two big diesel engines are only used in icebreaking and egressing mode.

Scientists on the Nuyina are looking to have a 'well set' - an area of growth to support research for life and marine organisms. Sowder heads into the well to pump water to bring up drinking tanks and other tanks. Scientists can collect marine organisms alive and place them in aquaria for further study.

The Nuyina is also a 'museum' to display scientific instruments, nets and robotic vehicles. It is full of a 70 metre-long vertical shaft that runs from the science deck through to a hatch in the hull.

The Nuyina is built with the most advanced technology and is capable of doing a full research voyage in Antarctica and bringing back samples.