



Teacher Resource

Living on the ISS

Focus Questions

Discuss the BTN story as a class and record the main points of the discussion. Students will then respond to the following:

1. What did Sunita and Barry discover when they arrived at the ISS on the 6th of June?
2. What does ISS stand for?
3. Which spacecraft will Butch and Suni return on?
4. The ISS is set up for long stays. True or false?
5. If you could ask Butch and Suni a question, what would it be?

Activity: Note taking

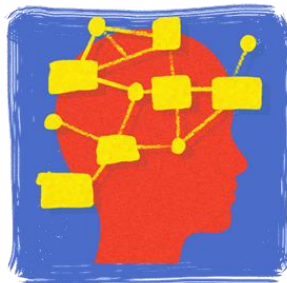
Students will practise their note-taking skills while watching the BTN Living on the ISS story. After watching the story, ask students to reflect on and organise the information into three categories. What information in the story was positive, negative, or interesting?



Activity: Class Discussion

Discuss the BTN Living on the ISS story as a class. Ask students what they know about the ISS and record student responses on a mind map. Use the following questions to guide discussion:

- Why explore space? Brainstorm a list of reasons.
- What is the International Space Station?
- What is the purpose of the ISS?
- How do astronauts travel to and from the ISS?
- What do astronauts do on the ISS?
- What do you think it would be like living on the ISS? Make a list of the pros and cons.
- What three questions you would like to ask an astronaut on the ISS?



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KEY LEARNING

Students will learn more about what life is like living on the International Space Station.

CURRICULUM

Science – Year 5

Scientific understandings, discoveries and inventions are used to solve problems that directly affect peoples' lives.

The Earth is part of a system of planets orbiting around a star (the sun).

Science – Years 5 & 6

Scientific knowledge is used to solve problems and inform personal and community decisions.

Science – Year 7

Scientific knowledge has changed peoples' understanding of the world and is refined as new evidence becomes available.

Activity: Glossary

Students will brainstorm a list of key words that relate to the BTN Living on the ISS story. Here are some words to get them started.

INTERNATIONAL SPACE STATION	ASTRONAUT	BOEING STARLINER
MISSION	EXPLORATION	SPACECRAFT

Ask students to write what they think is the meaning of each word (including unfamiliar words). They will swap definitions with a partner and ask them to add to or change the definition. Check these against the dictionary definition.

Activity: International Space Station Research

Discuss the information raised in the BTN Living on the ISS story. What questions were raised in the discussion and what are the gaps in students' knowledge? Here are some possible questions for students to research:

- What is the ISS? Why was it built?
- What countries are involved in the ISS program and how do they contribute?
- What do astronauts do on the ISS? What are some of their daily tasks?
- How long do they stay on the ISS?
- How do crew members join and leave the ISS?
- What is it like living in microgravity? Eating, sleeping, having a shower, going to the toilet.
- Why is it important for astronauts to exercise in space? Watch the [Exercising in Space](#) video to learn more.
- What do you think the challenges of living in space would be?
- How does the work carried out by the ISS astronauts contribute to science and affect life on Earth?
- What are some of the most important discoveries made on the ISS?
- Why is the International Space Station being decommissioned?
- Do you think space exploration is important? Why or why not?

Further Investigation

Learn more about the current expedition to the ISS. [Meet the Expedition 71 crew](#)

- What sorts of things are the crew exploring?
- What do the [images of the expedition](#) tell you?
- Choose a [crew member](#) and write a short biography about them.



Activity – Choose a Project

Individually or in small groups, students will choose one of the following projects to work on and then present their findings to the class.

Spot the ISS

Follow the ISS as it orbits Earth. Enter your location to find out when you can see it. [Spot The Station | NASA](#)

Quiz

Create a true/ false or multiple-choice quiz to test your classmate's knowledge about the International Space Station.

What's happening on the ISS?

Find out what the astronauts are up to on the ISS and the research they are doing by checking out the [Space Station blog update](#)

Design your own space station

Draw or build a model of a space station. Consider what modules you would include and how crew members would live and work there.

Activity: Careers in Space

Learn more about the space sector and [pathways for a career in space](#). Choose one job that you would like to know more about. Investigate what the job involves and what you need to study to become one. Present the information to a small group or class. Students will think about the following during their research:

- What study do you need to do for the job?
- What skills are needed to do the job?
- What are some of the responsibilities of the job?
- What sort of research is involved once you are in this job?
- Can you interview someone who has this job to find out more?

Visit the Australian Space Agency to learn Careers more about [pathways for a career in space](#).

I want to be a <space>... Technician

My Journey

Strengths
Practical
Good with hands
Problem solving

School Subjects
Mathematics
Physical Education
English

Vocational Courses
Electrical Engineering
Aeroskills/Avionics
Aircraft Maintenance Engineering
Electronics and Communications

Space Careers
Automation/Robotics Technician
Mechanical/Assembly Technician
Electrician/Electrical Technician
Space Facility Management
CNC Machinist

Discover Space Agency
[discover.space.gov.au](#)

[A space for everyone: careers in space](#)

Space Systems Engineers

Design, build and test spacecraft, launches and ground-based systems. Specialty areas include: **Analysts, System and Subsystem Leads and Subsystem Architects** for:

- Mechanical, structures and mechanisms
- Thermal
- Propulsion
- Guidance, navigation and control
- Operations: Fault Detection Isolation and Recovery (FDIR) and Software
- Assembly, Integration and Test
- Systems
- Mission systems

Further speciality areas include:

- Aerothermodynamics
- Operations
- Payload types such as radar and optical

Study pathways

At Australian Universities, study:

- Bachelor of Engineering (Honours) (Mechanical)
- Bachelor of Engineering Honours (Mechanical and Mechatronic)
- Bachelor of Engineering (Mechanical and Advanced Manufacturing)

For higher level industry and research jobs, post-graduate aerospace engineering study at Masters and/or PhD level is recommended.

MEDIAN AUSTRALIAN SALARY:
Entry Level \$72,000
Experienced \$140,000

[Careers in space booklet](#)

Useful Websites

- [Starliner Launch](#) – BTN
- [Life in Space](#) – BTN
- [International Space Station](#) – NASA
- [NASA astronauts `stuck in space' until next year](#) – Newsround