



Teacher Resource

Female Scientists

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. Before watching this story name some famous scientists. How many are women and how many are men?
2. What did Rosalind Franklin discover?
3. Why has science been a male-dominated field? Give one reason.
4. What female scientist helped discover nuclear fission?
5. Name an Australian female scientist.

Activity: Brainstorming

Before watching this story, students will brainstorm a list of famous scientists. They will then go through their list and highlight all the women. This activity can be done as a class or in smaller groups. Discuss students' responses.



Activity: Discussion

Working in pairs or small groups, students will discuss the BTN Female Scientists story using the following questions as a guide.

- What did a recent report find about representation of female scientists in the Australian curriculum?
- Why is it important to learn about female scientists?
- If you could meet any female scientist from history, who would it be? Give reasons for your answer.
- How can girls be encouraged to pursue careers in science?

What did you learn from the story?

What questions do you have about the story?

EPISODE 25

5th September 2023

KEY LEARNING

Students will investigate reasons why women are poorly represented in science. They will also create a biography of a female scientist of their choice.

CURRICULUM

HASS – Years 5 and 6

Work in groups to generate responses to issues and challenges.

Present ideas, findings, viewpoints, and conclusions in a range of texts and modes that incorporate source materials, digital and non-digital representations and discipline-specific terms and conventions.

Science – Year 7

Investigate how cultural perspectives and world views influence the development of scientific knowledge.

Activity: Female Scientist Biography

Students will choose a well-known female scientist to research and write a biography about. They can choose one of the female scientists featured in the BTN story or another one. Before students begin to construct their biographies, hold a class discussion to find out what they already know about biographical writing.

Use the questions below to get a class discussion started with your students about biographical writing.

- What does a biography tell us about a person?
- Where can you look to find information for your biographical writing?
- What makes a biography interesting? For example, key information and facts, a timeline of events, photographs, illustrations and quotes.

Using the biography worksheet at the end of this activity, students will research and record information about a female scientist. Some possible areas of research include:

- When and where were they born? Describe their family life growing up.
- What are some of their achievements? What area of science did they focus on?
- What inspired/motivated them? Who were their role models?
- What were their challenges?
- How do we recognise their achievements?
- How have they made an impact on people's lives?
- What do you admire about them?

Further investigation

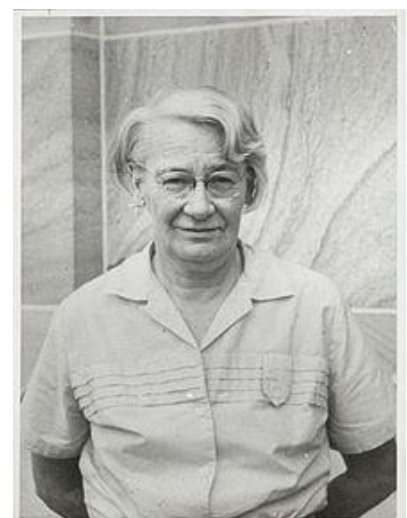
- Create a timeline of significant events in their life.
- What are some of the key events in their life? Write a summary for one key event, which answers the 5 W's – Who, What, Where, When and Why?
- How do primary sources (for example photos, letters, diaries and official documents) help us understand what might have happened at a place in time? Find 1 or 2 primary sources that help you learn more about the person's life.
- Imagine you could sit down and talk to them. What questions would you ask about their life and achievements?
- Write a letter thanking them for their achievements and how they have changed the world.
- Make a Did You Know for other students.



[Marie Curie](#)



[Fiona Wood](#)



[Dorothy Hill](#)

Activity: BTN Female Astronaut story

[BTN caught up with Katherine Bennell-Pegg](#) who is the first woman to be trained as an astronaut under the Australian flag.

What types of careers are there in space exploration?

Learn more about the space sector and [pathways for a career in space](#). Choose one to explore in more detail.



Activity: Fierce Girls podcast

Ruby Payne Scott – The Girl Who Listened to the Stars

In the 1940s when Ruby Payne Scott went to university, she was the only girl in her class. Back then, you could count the number of female physicists in the entire country on one hand.

Listen to the [Fierce Girls Podcast](#) to learn more about her life and her contribution to space exploration.

Students will listen to the podcast and then respond to the following questions:

- What were some of Ruby Payne Scott's challenges? List some of the roadblocks she faced.
- What course did she graduate in at university?
- What top secret job did Ruby Payne Scott do during WWII? Illustrate an aspect of her job.
- What is radio astronomy?
- What were some of Ruby Payne Scott's achievements?



Andrea Boyd — The Girl Who Became the Voice of Space

Andrea Boyd worked hard to become the International Space Station's only Aussie flight controller, talking to the astronauts who lived in the space station as it orbited Earth. But Andrea didn't stop there — she wanted to bring space exploration to Australia. She convinced the country's leading academics, businesspeople, and the government to open the Australian Space Agency.

Listen to the [Fierce Girls Podcast](#) to learn more about her life and her contribution to space exploration.

Students will listen to the podcast and then respond to the following questions:

- What is one of the best places for stargazing?
- What TV show inspired Andrea Boyd to reach to the stars?
- What is the International Space Station (ISS)? Describe.
- What is Andrea Boyd's job for the ISS?
- What is a Soyuz?
- How would life be different without satellites?
- Summarise Andrea Boyd's achievements in space exploration.



Marita Cheng – The Girl Who Built Robots

When Marita was little, she thought robots could change the world but not many other girls thought the same. So, Marita started Robogals, a club to show girls they could work in robotics when they grew up.

Listen to the [Fierce Girls Podcast](#) to learn more about her life and her contribution to robotics.



Activity: Interviews with female scientists

Rookie Reporter Lily loves all things science! She decided to interview female scientists about their lives and their jobs.



Vienna Tran is studying medicine and hopes to one day be a space doctor. Watch Lily's interview [here](#)



Eriita Jones is a Planetary and Space scientist. Watch Lily's interview [here](#)

Useful Websites

- [Aussie Astronaut](#) – BTN
- [Dorothy Hill](#) – BTN
- [Nobel Prize awarded women](#) – The Nobel Prize

BIOGRAPHY



Name _____

Born _____

Family



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