



Teacher Resource

Parkes Telescope Anniversary

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 is the Parkes telescope also known as?
2. Radio astronomy is the study of...
3. What has the telescope helped scientists discover?
4. What role did the Parkes telescope play in the Apollo 11 mission?
5. What future missions is it going to be involved in?

Activity: See, think and wonder

After watching the BTN Parkes Telescope Anniversary story, students will respond to the following questions:

- What did you SEE in this video?
- What did you LEARN from this story?
- What was SURPRISING about this story?
- What QUESTIONS do you have about this story?

Discuss the BTN Parkes Telescope Anniversary story as a class. Use the following questions to guide discussion:

- When the Parkes telescope was built, it was the most advanced radio telescope in the world. True or false?
- What important space missions and discoveries has the telescope been involved in?
- Why is the location of the telescope important?
- What is its role in future missions?

Activity: Glossary

Students will brainstorm a list of keywords that relate to the Parkes radio telescope. Here are some words to get them started.

RADIO TELESCOPE	ASTRONOMY	UNIVERSE
ANTENNA	SOLAR SYSTEM	CSIRO

EPISODE 32

9th November 2021

KEY LEARNING

Students will learn more about the Parkes telescope and the role it has played in space exploration.

CURRICULUM

Science – Year 5

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

Predictable phenomena on Earth, including seasons and eclipses, are caused by the relative positions of the sun, Earth and the moon.

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

Activity: Parkes Telescope Research

After watching and discussing the BTN Parkes Telescope Anniversary story, what questions do students have and what are the gaps in their knowledge? Students will develop their own question/s for inquiry, collecting and recording information from a wide variety of sources. Students may develop their own question for inquiry or select one of the questions below.

- How do telescopes help scientists explore space?
- How did Australia help show the world the Moon landing?
- Why was the Parkes telescope used to receive and send transmissions from the Moon to NASA?
- How has the film 'The Dish' helped Australians learn about Parkes and its role in the Moon landing?
- What do we learn from radio astronomy? How has it changed the way we view the universe?

Activity: Apollo 11 and the Parkes Telescope

Watch [this BTN story](#) to find out more about the important role that Australia played in the Apollo 11 mission, and how the CSIRO's Parkes radio telescope ended up providing pictures of the Moon landing to the world.

Where are the 3 Australian stations that played a role in the Apollo 11 mission? Find using Google Maps.

1. What did scientists at Honeysuckle and Tidbinbilla stations do during the mission?
2. What station relayed to the world the first images of Neil Armstrong setting foot on the Moon?
3. How big is the Parkes radio telescope dish?
4. What happened to the Parkes radio telescope just before it broadcast the Moon landing?
5. What is the name of the film that tells the story of the Parkes Observatory's role in the Moon landing?
6. NASA stayed on the vision from Parkes for the rest of the 2 and a half-hour broadcast. True or false?



Watch the [Interview with John Sarkissian](#) Operations Scientists at the Parkes telescope and respond to the following questions:

- What are the astronomers in California scanning the sky for?
- What are quasars?
- What are pulsars?
- Why was the Parkes telescope critical in the Apollo 13 mission?
- What other missions has the Parkes telescope supported?
- What are the hopes for the telescope for the next fifty years?



Activity: Memories of the Moon Landing

The Parkes radio telescope played an important part in the Apollo 11 mission in 1969. Students will interview someone who remembers the Moon landing and ask them to share their memories about the event. Students will prepare a list of questions, conduct the interview and then share their interview findings with the class. Below are some example questions.

- How old were you when the first person landed on the Moon?
- Do you remember where you were?
- Did you watch it on TV or listen to it live on the radio?
- What are your strongest memories of the event?
- How did the event make you feel?
- Why do you think it was such a significant event?

Students can present their interview as a podcast. [Audacity](#) or [GarageBand](#) are both well suited to making podcasts. To publish they will need to use a free service like [PodOmatic](#), [Buzzsprout](#)

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.

Apollo 11 Mission

Investigate the Apollo 11 mission.
What was the purpose of the mission?
What did the mission discover?
Which countries were involved in the mission? How has the mission helped us understand the Solar System and beyond?

Reporter for a day

Imagine you are a reporter on BTN in 1969. Write a news article reporting on the Apollo 11 mission and the role the Parkes telescope played in the mission.

Kahoot Quiz

Use [Kahoot!](#) to create a quiz about Parkes and its role in the Moon landing.

Model of 'The Dish'

Create a model or draw a labelled diagram of the Parkes telescope.

Useful Websites

- [Parkes radio telescope, aka The Dish, celebrates 60 years of scientific discoveries](#) – ABC News
- [Parkes radio telescope](#) – CSIRO
- [What is radio astronomy?](#) – CSIRO
- [Radio signal detected by Parkes telescope is not aliens, but it's still 'weird'](#) – ABC News
- [Moon Landing Special Episode](#) – BTN