



Teacher Resource

Black Holes

Focus Questions

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

1. Use 3 words to describe a black hole.
2. What is the name of the hot, glowing material that orbits around black holes?
3. How are black holes found?
4. What is the border of a black hole called?
5. What is the name of the process when something is stretched as it approaches a black hole?
6. Describe what 'escape velocity' is?
7. In which century did the idea of 'escape velocity' come about?
 - a. 1600s
 - b. 1700s
 - c. 1800s
8. How many light years across is the supermassive black hole that Australian scientists have discovered?

Activities

- Create a slideshow presentation about black holes. Research and explain:
 - What is a black hole?
 - Provide a brief history on black holes
 - Write 5 interesting points about a well-known black hole
- Gravitational Pull is the force of attraction between the Earth and another mass object. Devise an experiment to explain this theory and share it with the class.
- Imagine you could be transported to another world through a black hole. Write a fictional story about the experience and where it would take you.
- Research the job of an Astrophysicist. Write a job description for the role.

EPISODE 10

6th March 2024

KEY LEARNING

Students will learn what black holes are and find out how they were first discovered.

CURRICULUM

[Science – Year 7 \(v8.4\)](#)

[Science – Year 9 \(v8.4\)](#)

[Physics – Unit 3 \(v8.4\)](#)

[Science – Year 7 \(v9.0\)](#)

[Science – Year 9 \(v9.0\)](#)