

## Which telescope? quiz

Test your knowledge of telescopes with this quiz. The <u>Space observatory</u> interactive has useful information about the telescopes featured in this quiz.

- 1 Which telescopes are ground-based?
  - Infrared telescope
  - Radio telescope
  - Optical telescope
  - UV telescope
- Which telescopes are space-based?
  - Infrared telescope
  - Radio telescope
  - Optical telescope
  - UV telescope
- 3 Why do some telescopes need to be in orbit rather than on Earth?
  - The Sun is too bright
  - They are cheaper to operate in space
  - To prevent damage from the elements
  - The atmosphere blocks certain types of wavelengths
- The Matariki star cluster (also called the Pleiades) only seems to have a few stars. Which telescope will give you a close-up view of visible light from these stars?
  - Infrared telescope
  - Radio telescope
  - Optical telescope
  - UV telescope
- The distant Pinwheel Galaxy looks like a white disk in visible light. Are there other stars outside the disk? Which telescope do you need to show very hot, young stars that don't give off much visible light?
  - Infrared telescope
  - Radio telescope
  - Optical telescope
  - UV telescope
- Are there any stars hidden behind the dense dust clouds in the constellation Serpens? Which telescope is best suited to seeing cool stars through dust clouds?
  - Infrared telescope
  - Radio telescope
  - Optical telescope
  - UV telescope
- What does the shock wave from a supernova (exploding star) look like? Which telescope will you use to see heated dust giving off radiation with longer wavelengths than visible light?
  - Infrared telescope
  - Radio telescope
  - Optical telescope
  - UV telescope
- Are galaxies made only of stars, or do some contain material that does not give off visible light for heat? Which telescope will you use to detect very long wavelengths of radiation?
  - Infrared telescope
  - Radio telescope
  - Optical telescope
  - UV telescope













## Activity: **Exploring with telescopes**

- 9 Why is one of the nebulae in Orion called the Witch Head? Which telescope will show you the shape of a dust cloud with visible light reflected off it?
  - Infrared telescope
  - Radio telescope
  - Optical telescope
  - UV telescope
- 10 Which of the following waves are stars least likely to give off?
  - Infrared waves
  - Visible light waves
  - Radio waves
  - UV waves

