

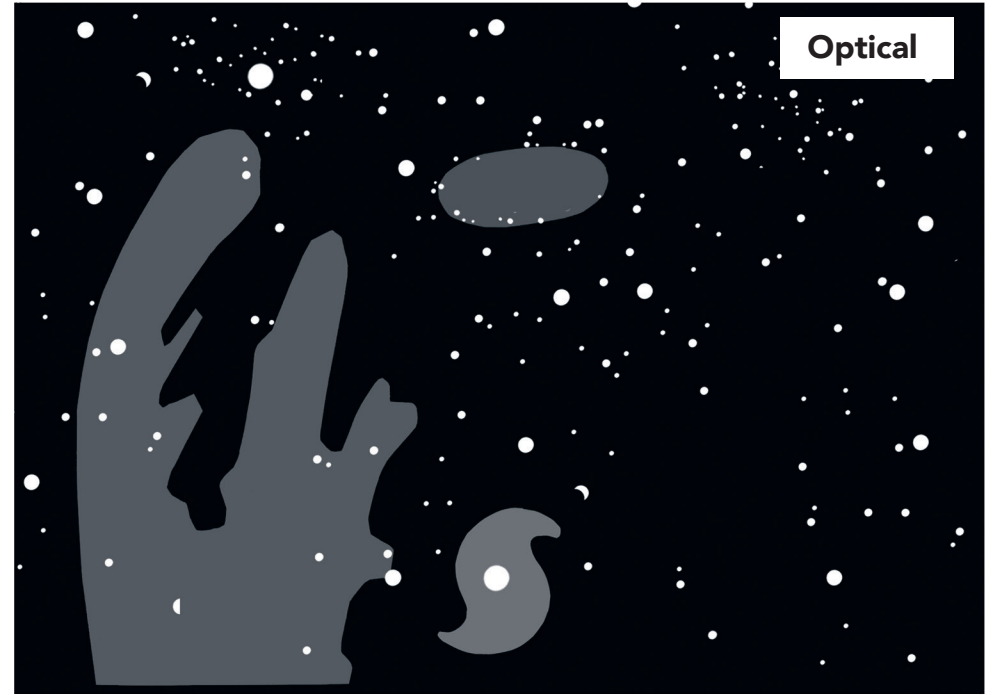
FIRST FINDINGS

Congratulations, your telescope has sent back its first infrared image and – WOW! – we can see so many things that optical images haven't captured. Help us analyse this image...

Hi space observers!

I'm Alastair Bruce, an astronomer at the Royal Observatory, Edinburgh. Help me understand more about your infrared image. What differences can you spot between it and the optical image? Colour the differences you see. Can you name any of the celestial wonders your image reveals?

Zap to explore the infrared Universe!



DATA DETECTIVE

Hi, space explorer! I'm Beth Biller and I study exoplanets! Your super-sensitive infrared telescope can see light through the atmospheres of exoplanets, and even detect patterns that can tell us what that air is made of. I see you have already collected data for 10 recently-observed planets – can you work out if any of these might support life?

Zap to learn more about exoplanets



Look at the clues in Dataset 1. What are the emojis telling us about these gases? Can you find out more about them?

One of the carbons is made up of **carbon + 1 oxygen** and the other is **carbon + 2 oxygen**. Which is which? (Pssst. There's a clue in the name!)

Analyse Dataset 2 and colour-code the planets into these categories:

- Definitely no life here!
- Unlikely to support life
- Planet most likely to support life

Dataset 1: Detected Gases

Gas	Clues	Characteristics
carbon dioxide	🧠 = & ☀️ 🌿	
water vapour	🌍 🌿 👥 🐬	
carbon monoxide	☠️	
methane	🐮 ☁️ & 🔥	

Dataset 2: Atmospheric Data from 10 Exoplanets

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VISUALISING THE UNIVERSE

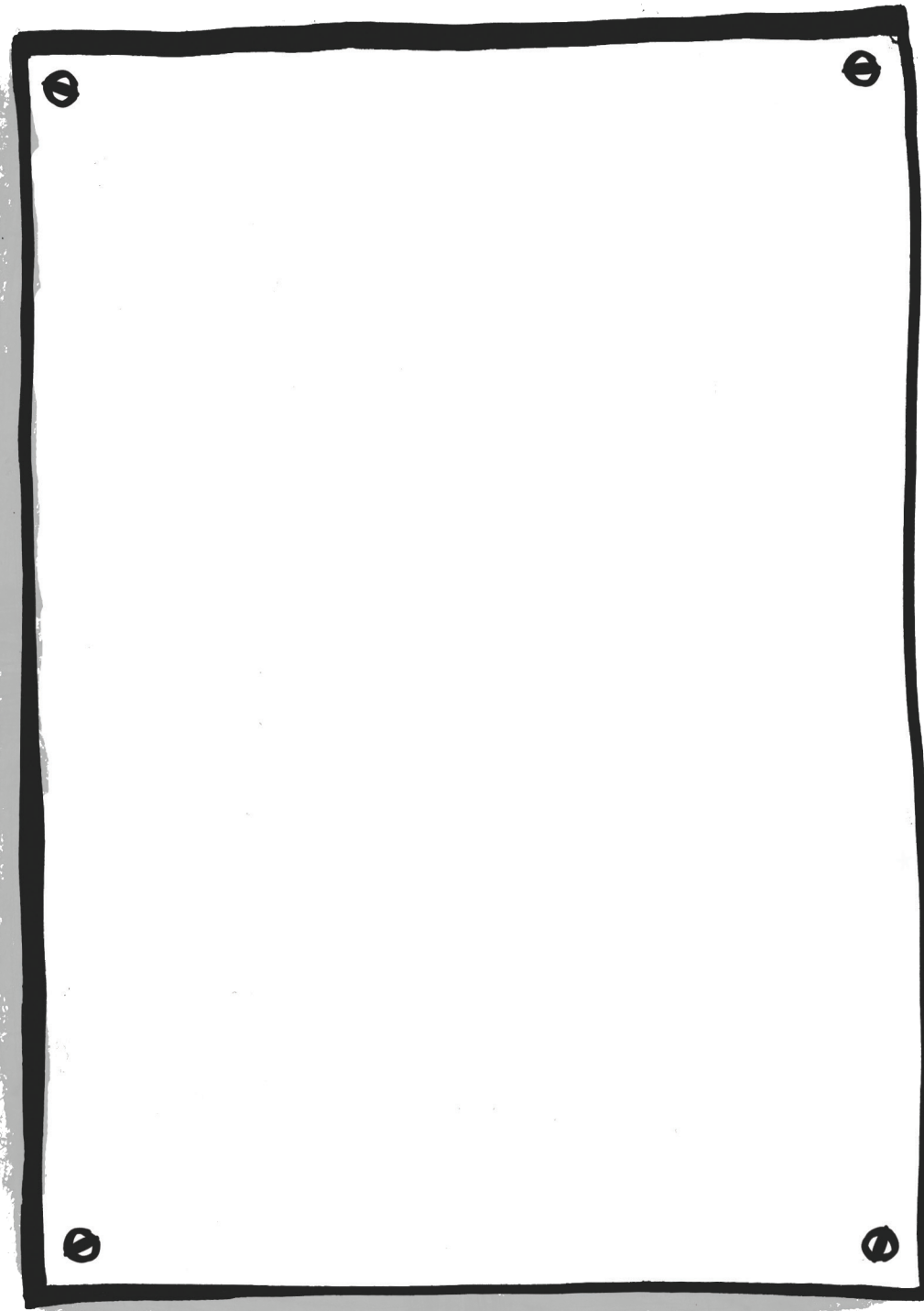
Scientists are keen to hear about your discoveries. Use graphs, diagrams, drawings, photos or infographics to create a poster presentation on your findings.

Hi, space scientist!

I'm Naomi Rowe-Gurney and I study giant planets. I hear you've made some interesting discoveries and observations with your telescope. Create a visual poster that shows fellow researchers like me what you have discovered and the potential this has to change what we know about the Universe.



Zap for inspiration!



CHAPTER FIVE

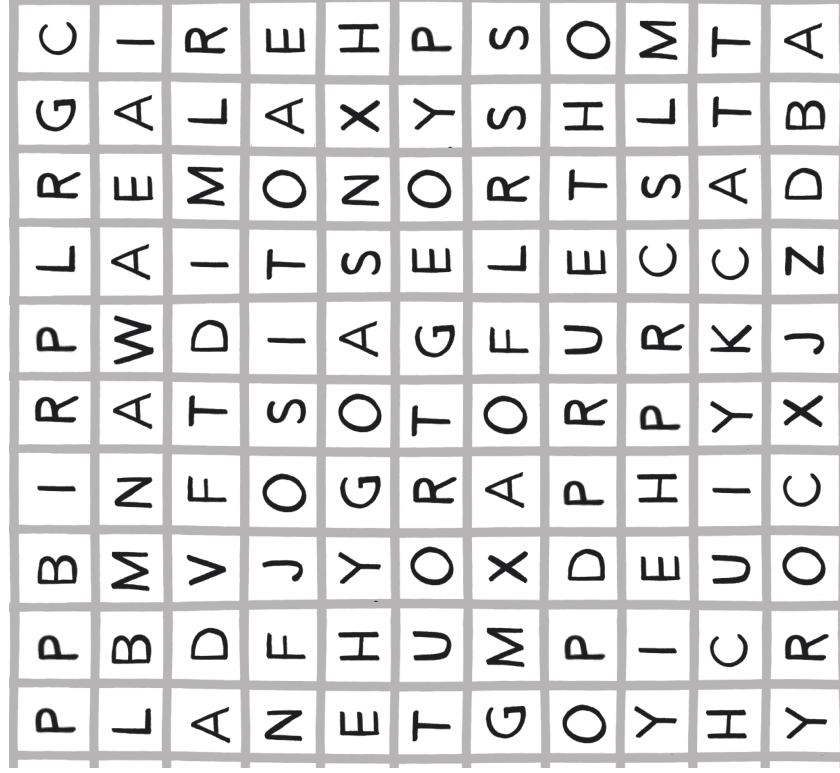
WORD SEARCH



Zap for the
answers!

Find the words you've learnt in this chapter and add them to your Visual Dictionary of Deep Space at the back of the book.

Words can go forward, backward and diagonally.



Target = 8 words beginning with:

A D P A G P C I