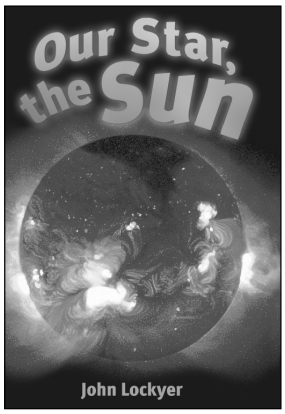
Our Star, the Sun



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Book Summary

The heat and light from the sun allow life to flourish on Earth. It also provides us with our energy sources. This text looks at the star at the centre of our solar system.

Features of the Book

- Report with explanations
- Technical language
- Diagrams, including cutaway
- Footnote
- References to ancient beliefs

Purpose

Our Star, the Sun can be used to introduce and reinforce the following skills and understandings:

- **S** visualising;
- **S** evaluating information;
- **S** recognising how heat and light from the sun are essential for life on Earth;
- **S** understanding that the sun is one of countless stars in the universe.

Investigation Tools

- What's the Background? – Star Factories, page 4
- Looking Closer – The Sun's Layers, pages 8–9
- Digging Deeper – Sun Gods, page 19
- Making Connections – Solar Animals, page 23
- Weighing Both Sides – Solar Power, pages 26–27
- Step by Step – The End of the Sun, page 30

The Guided Reading Lesson

- **S** Visualising
- **S** Evaluating information
- **S** Recognising how heat and light from the sun are essential for life on Earth

Introducing the text

Start a discussion about the sun, encouraging the students to think beyond the obvious facts.

- *How do scientists know what the sun is made of and how it was formed?*
- *Why did ancient civilisations worship the sun? Why is the sun so important?*
- *If we can be burned by the sun's heat, how hot is the sun itself?*

Tell the students that as they read *Our Star, the Sun*, they will be asked to use the strategy of visualising. They will also be using the reading strategy of evaluating to make judgments about the ideas and information.

Reading and discussing the text

The students can read the introduction and page 4 silently.

- *How do we know these facts are true?* (confirm from own experience, check against other sources)
- *On page 4, it says "Astronomers believe …" What does this mean? How "true" is the information?* (Explain that this is a theory based on a great deal of scientific knowledge. It is probably true.)

Tell the students that as they read chapters 1 and 2, they can consider how to visualise the sizes and distances.

- *What experiences can help you to imagine sunspots and solar flares?* (watching flames in a fire, fireworks)
- *There is a footnote on page 9. What is a footnote? Why is this information not in the main part of the page?*

Tell the students to read to the end of page 13, then discuss the statement "Animals can't make their own food."

- *What do you understand by this?*

Discuss the concept that plants use sunlight to produce food and that all food chains depend on this.

The students can read to the end of the chapter, then discuss and list the reasons for the sun's importance to life.

- *Look at page 19. The sun features in many ancient religions. Why was this? How have people's ideas about the sun changed?*

The next chapter contains technical information. If the students need more support, work through the chapter in sections, clarifying the information where necessary.

- *The author describes "solar animals" on page 23. Use the strategy of visualising to imagine how the animals use the sun's energy to warm up. How does this compare with people sunbathing?*

When the students have read to the end of the book, ask them to evaluate the final chapter.

- *Do you think this will really happen?*
- *What do you predict will happen to life on Earth as the sun burns out?*

Revisiting the Text

The activities below can be used immediately after the guided reading lesson, during later reading sessions as mini-lessons, or as independent activities.

S Visualising

The students can reread page 23, then imagine they are a solar animal. They can brainstorm sensory images, then write a poem or a descriptive passage from the animal's point of view.

S Recognising how heat and light from the sun are essential for life on Earth

The students can use the information in the book and other sources to chart how life depends on the sun.

✎ They can record their findings on the blackline master.

S Evaluating information

The students can return to the text on pages 26 to 27 and record their own and other people's opinions about the use of solar power.